

ISSN INTERNATIONAL CENTRE ACTIVITY REPORT FOR 2023



INTERNATIONAL
STANDARD
SERIAL
NUMBER
INTERNATIONAL CENTRE

Introduction

As an intergovernmental organization celebrating its fiftieth anniversary in 2025, the ISSN International Centre is committed to cultivating good working relationships with all ISSN national centres and their host organizations, despite geopolitical tensions. The International Centre regularly organizes professional workshops and webinars. It conducts network communication campaigns to encourage full cooperation between ISSN member countries, notably through portraits of colleagues posted on social networks. Its action is absolutely decisive in maintaining the ISSN network's influence and credibility among its partners and subscribers to its services.

Geopolitical tensions in Europe and the Middle East have led to an international economic crisis due to the rising cost of energy and raw materials. Extreme weather conditions in many parts of the world have also exacerbated food crises and inflation. The ISSN International Centre was affected by these difficult economic conditions, and its fixed costs increased while the price of its services remained fairly stable.

The ISSN International Centre, in agreement with its governing bodies, has pursued its major IT investments to drastically modernize its information systems. These systems are essential to the fulfilment of its mission to identify journals and other serial publications worldwide, in close collaboration with national centres. The priority given to these investments has led the organisation to reduce its expenditure on budget items less critical to the continuity of its activities.

The tensions mentioned above have also led the International Centre to take steps to protect its data and servers. For example, ISSN portal data is now replicated on several continents, and a trusted partner has been identified who can, if necessary, extract the data and entrust it to a successor organization should the International Centre be prevented from operating for reasons of force majeure.

In 2023, developments continued on the ISSN+ application used by the International Centre and its network to produce the identifiers and associated metadata that are exposed in the ISSN portal. The "freemium" model adopted in 2018 gives the International Centre high visibility on the web and enables its database to play a central identification role for libraries, intermediary services and publishers. Supplying quality metadata remains a major challenge for the network. With ISSN+, the national centres now have access to a recent, modular application, to which have been added functionalities adapted to the needs of the centres, such as a dashboard listing invalid web links. The International Centre plays an important role in controlling the quality of data uploaded by national centres: 39,346 corrections were made by the International Centre before records were imported into the portal.

At the end of 2023, the ISSN portal contained 2,344,415 confirmed ISSNs, an increase of 2.5% on 2022. The overall number of continuing resources identified by the network has increased compared to 2022, with around 56,000 new ISSNs assigned. The International Centre has added 2,865 new ISSNs to the database. Core data is available free of charge on the portal, which is now updated hourly.

In the second half of 2023, thanks to a reinforced IT team and service providers with a good knowledge of its environment, the International Centre has launched a project to overhaul its portal, whose technical infrastructure is becoming obsolete. The aim is to build a new portal that will bring together different levels of information, from identifiers and their metadata to associated services and information on the ISSN network. It's a cross-

functional project that will have a major impact on the Centre's structure, and will require a substantial human and financial investment, but one that is absolutely essential. This overhaul is part of the process of defining the future action plan for the years 2025 to 2029. The current strategic plan will come to an end in 2024, and an assessment will be drawn up for each objective. Following this review, and a team discussion, the International Centre's development policy will be put to the governing bodies for a vote.



1. The ISSN Network

1.1 Coverage and extension of the ISSN Network

In 2023, the ISSN network had 93 member states, the same figure as in 2022. However, a number of countries have initiated a procedure to accede to the statutes of the ISSN International Centre at UNESCO. The United Arab Emirates is expected to join in early 2024. Oman and Slovakia (for regularization) will follow in 2024.

1.2 ISSN Network Activities

1.2.1 Governance bodies

Four Board meetings were held in 2023:

- 17 February 2023 (remote),
- 25 & 26 April 2023 (in-person),
- 20 July 2023 (remote),
- 14 November 2023 (remote).

The members of the Governing Board are unchanged in 2023 and represent the following member countries: Brazil, Bosnia-Herzegovina, Croatia, Germany, Mauritius, Spain, Sweden, Tunisia, United Kingdom and United States of America. France and UNESCO have a permanent seat on the Board.

1.2.2 ISSN National Centres

The 48th meeting of ISSN centre directors was held in Brussels, Belgium, from October 23 to 26, 2023, at the kind invitation of the Koninklijke Bibliotheek/Royal Library (KBR) and ISSN Belgium. The ISSN International Centre and the ISSN network are grateful to KBR for the excellent organization of this meeting. Four travel and accommodation grants were awarded to colleagues from national centres to enable them to participate. The awardees were representatives from ISSN Bosnia & Herzegovina, ISSN Nepal, ISSN Tunisia and ISSN Ukraine.

All sessions were conducted in English. Participation in person and online was good. 58 participants were present in Brussels, including 47 delegates from 41 national centres, 9 representatives of the ISSN International Centre and 2 observers. 19 members of the ISSN network logged in to certain sessions. Several workshops to demonstrate the ISSN+ data production tool were scheduled and met with great success.

In 2023, **69 national centres** submitted their annual report (compared with 79 in 2022), and 24 national centres did not send it to the ISSN International Centre. Submission of the annual report is an obligation under the agreement between the ISSN International Centre and the National Centres.

By the end of 2023, **51 ISSN national centres** had signed the new working agreement.



1.3 Progress on the 2024 Strategic Plan

The ISSN International Centre's 2024 strategic plan was approved by the Governing Board and member countries in April-May 2020.

OBJECTIVE 1: Develop the overall interoperability of the ISSN portal by improving the management of ISNIs within the ISSN portal.

The ISSN International Centre believes that it is important for the ISSN to be interconnected with other identifiers and thus form part of the web-based identification ecosystem. The International Centre has been a member of the ISNI International Agency since 2015 and has access to the ISNI professional database.

The International Centre also works with national centres that already use ISNIs (ISO 27727:2012) as identifiers for individuals and corporate bodies in their own local databases. These ISNIs are retrieved by the ISSN International Centre when records are imported into the ISSN portal.

The International Centre intends to use ISNIs to create standardized access points for publishers and organizations in the ISSN portal, in order to improve search results. The International Centre will also request the creation of ISNIs for entities that do not yet have one.

Key performance indicator: All ISSN portal organizations and publishers are identified by ISNIs by 2024.

An internal wiki has been set up to identify around 300 multinational publishers, their affiliated publishers and related brands that feed the ISSN database. This wiki is managed by the ISSN International Centre, with contributions from some twenty national centres responsible for identifying and describing the publications of these multinational publishers. The list of multinational publishers was published on Zenodo in April 2023. It can be reused by the library and publishing community.

After successfully testing the batch upload of ISSN data to the ISNI database in 2021, the International Centre submitted a report to the ISNI Libraries Group with recommendations for evolving the data schema for organization identification in ISNI, including that for serial publishers. In 2023, the ISNI quality team was to work on revising existing technical documentation to improve organization identification. No significant progress was made on this front in 2023, despite a number of reminders.

OBJECTIVE 2: Encourage the creation of new national ISSN centres to extend the ISSN network worldwide.

UNESCO has 195 members and 9 associate members, and the United Nations 193 member states. By 2020, 90 countries had a national ISSN centre. Our recurring strategic objective is to ensure that all countries can set up a national centre where this seems viable, and to encourage under-performing centres to comply with standards and best practices. To achieve this, we need to step up initial and in-service training, as well as awareness-raising campaigns. Our aim is to open at least five new National Centres between 2020 and 2024, to revise the initial training program and then implement it, to work with the lowest-performing centres, to help set up new infrastructures, to formalize the evaluation process for a new member country's application, and to create several tools to monitor the centres' activities and the agreements the International Centre has signed with them.

Key performance indicator: Five new ISSN national centres opened by 2024.

In 2023, no new ISSN centres was set up. However, several exchanges took place with colleagues in the United Arab Emirates, Mongolia and Oman. The procedure for acceding to the Statutes of the ISSN International Centre is complex, and relies on a diplomatic process managed by UNESCO. This stage often takes several months before membership is officially validated. However, the International Centre is confident that the membership of the three countries mentioned above and the regularization membership of Slovakia can be formalized in 2024 to meet the target.

OBJECTIVE 3: Implement the sixth version of the ISSN standard by creating the family ISSN and other grouping ISSNs.

Tracking the changes that a serial publication undergoes over time has long been a challenge, and the relationship between past and present titles is recorded in MARC bibliographic formats in specific fields. For many years, ISSN-L has been used to bring together the different versions of a continuous resource on different media. The seventh version of the ISO 3297 standard, published in June 2022, makes it possible to create other grouping ISSNs. A survey of our user community in 2019 revealed interest in what might be called an ISSN-F grouping titles identified by ISSNs and representing the same family. Discussions within the ISSN International Centre have determined that an ISSN-F could be embodied by a URI giving access to a visual representation of a publication's history. This representation could be created and managed centrally, without any additional work for national centres.

Key performance indicator: Creation of specific fields for grouping ISSNs in data encoding schemes

The creation of field 023 in the MARC21 format for grouping ISSNs was validated in December 2023 (<https://www.loc.gov/marc/bibliographic/bd023.html>). The creation of the equivalent field in UNIMARC will be effective in 2024. ISSN-H, which groups successive titles, has been implemented in the ISSN+ tool and made available to national centres. However, it has not yet been deployed on the ISSN portal, due to the latter's redesign and the need to precisely define the conditions and cost of the paying service to be set up on the new portal.

OBJECTIVE 4: Implement the sixth version of ISO3297 - ISSN by assigning ISSNs to different types of ongoing resources.

Major changes in the publishing landscape could have an impact on ISSN over the next few years. While there is no doubt that serial publishing will continue, questions will arise as to its relative importance. ISSN needs to better identify and include resources such as university repositories and databases, and make appropriate investments to consolidate its position in the identifier ecosystem. This objective does not imply changing the format or definition of the ISSN, since it already encompasses integrating resources. The ISSN network aims to raise awareness among producers of all serial publications to ensure that their publications receive an ISSN, in order to achieve full implementation of the standard.

Key performance indicator: Publication of updated definitions of continuous resources and new data encoding values

A proposal was adopted by the MARC Advisory Committee (MAC) in January 2021 to include additional types of continuous resources defined for the control area (tag 008 position 21; <https://www.loc.gov/marc/bibliographic/bd008.html>) to reflect the full range of continuous resources covered by ISO 3297:2022. Three code definitions have been revised and six new codes added. A request to change the equivalent codes for UNIMARC followed in April, and in autumn 2021 the new codes were officially published in both systems. Official network-wide adoption of the codes took place with the launch of ISSN+ in June 2022.

OBJECTIVE 5: Develop the interoperability of the ISSN portal by managing permanent identifiers and URLs for ongoing digital resources.

The ISSN International Centre manages the metadata of digital serials in the ISSN portal. According to the ISSN manual, it is mandatory to include URLs for electronic publications in the 856 field of the MARC 21 record. On the ISSN portal, URLs in 856 tags are used to link to the resource itself. Like all bibliographic databases managing URLs for documentary resources hosted on external servers, such as those of issuing organizations and commercial publishers, the ISSN portal is faced with URL obsolescence when online publications cease to be updated, disappear or change hosting server. The International Centre does not index the web permanently and systematically, as search engines do, to retrieve current URLs. In addition, a number of resources are not freely accessible on the web and cannot be retrieved. We assume that only the archived digital resource is stable because it has a permanent URL provided by an archiving organization. Only a minority of digitized or digital titles are archived at present, but digital preservation is a booming business. On the ISSN portal, a specific usable identifier will be used to bring together the URLs of the resource as originally published, the URLs of successive publishers, if any, and the URLs of the archived version managed by the archiving agencies. This new service will add value to the ISSN portal by bringing together in a single point the URLs provided by publishers and archiving agencies for a given digital continuous resource.

Key Performance Indicator: The ISSN International Centre will manage an operational resolver handling different URL types by 2024.

The ISSN International Centre has developed an URN:ISSN resolver (<https://urn.issn.org/>) that integrates the URLs available in the 856 field. This resolver can be used as a pivot in the process of redirecting to current and archive URLs. The *857 field - Location and access to electronic archives* - has been official in MARC21 since June 2023. The creation of the equivalent zone in UNIMARC will be effective in 2024. In early 2024, the International Centre will populate field 857 with data supplied by Keepers Registry archiving agencies in its ISSN+ production tool. As part of the ISSN portal redesign, the URN:ISSN resolver may be updated to take account of the different URLs registered in ISSN+, redirecting users successively to the resource's current location, the resource's archival location and, finally, to the ISSN portal page.

OBJECTIVE 6: Promote and develop Keepers Registry to involve new agencies and increase the number of archived resources identified.

Keepers Registry is a free service designed to inform the library and publishing community of the measures taken by archiving organizations to preserve the titles of digitized and digital serial publications identified by ISSNs, in order to promote long-term access to these resources and stabilize scientific references for the research sector.

For the International Centre, the takeover of the Keepers Registry service in December 2019 was a strategic decision that resulted in the expansion of the ISSN Portal offering: the ISSN International Centre and the network together produce an indispensable source of information on continuing resources at all stages of their existence, from their identification and description by the ISSN Network to their preservation by partner archiving agencies.

Key performance indicator: The number of archive agencies participating in Keepers Registry will reach 20 by 2024.

At the end of 2023, the service had 19 participating archiving agencies. A meeting of all archiving agencies was organized by the International Centre in June 2023. These agencies were given a presentation of the developments made by the International Centre on the service and a demonstration of Submit.Retrieve.Reuse, the service launched in 2023



enabling libraries to check the quality of their ISSN data and retrieve information on the long-term archiving of digital and digitized journals. A forward-looking report has been commissioned from Peter Burnhill, consultant to the management of the International Centre, to define a development strategy for the period 2025-2029. This report will be submitted to the management of the International Centre at the beginning of 2024, and will be discussed in order to define priority directions.

The Technical Advisory Committee (TAC) held two remote meetings in August and December 2023. TAC members remain unchanged: John Chodacki, California Digital Library, Ted Westervelt, Library of Congress, Kate Wittenberg, PORTICO, Judith Barnsby, DOAJ, Ana Maria Cetto Kramis, Latindex, Wendy Robertson, NASIG, Michelle Polchow, UC Davis, and Stephen Marks, U Toronto as experts. Peter Burnhill is a consultant to the Director of the ISSN International Centre.

The International Centre continues its cooperation with DOAJ, CLOCKSS, the Internet Archive and the Public Knowledge Project as part of the JASPER project (<https://doaj.org/preservation/>).

From a technical point of view, archive agency data currently stored in ISSN+ in a local data zone will be migrated to field 857 - *Location and access to electronic archives* in early 2024, to be made available to subscribers.

2. Activities of the ISSN International Centre

2.1 Department of Metadata and Technical Coordination of the ISSN Network (MTCIN)

2.1.1 The development of the ISSN Portal (please see Appendix 1 and <https://www.issn.org/understanding-the-issn/the-issn-international-register/>)

By the end of 2023, the ISSN portal contained **2,344,415 confirmed ISSN**s, an increase of 2.5% on 2022.

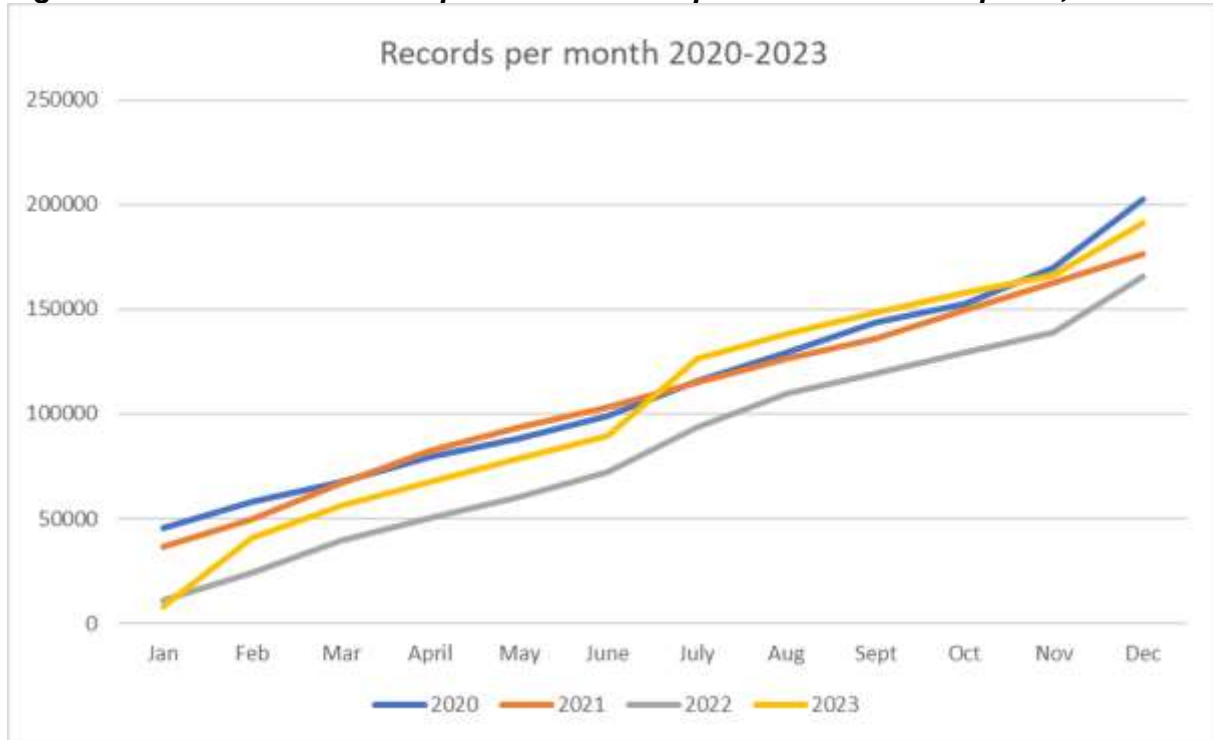
56,830 new ISSNs were created in 2023, representing an 8% increase on 2022.

Of the 93 national centres making up the ISSN network in 2023, 50 centres catalogue in their local database. These centres sent **191,447 new and updated records**, which were integrated into the database in 2023, i.e. +14% compared with 2022.

39,346 errors were corrected by the department before importing the records received from the national centres. This represents a 44% increase in the number of errors corrected compared with 2022. This increase is due to the implementation of the ISSN+ production tool, whose validation rules have been aligned with the most recent standard bibliographic practices, enabling more accurate identification of errors. Records produced by the network are now loaded into the ISSN portal on an hourly basis.



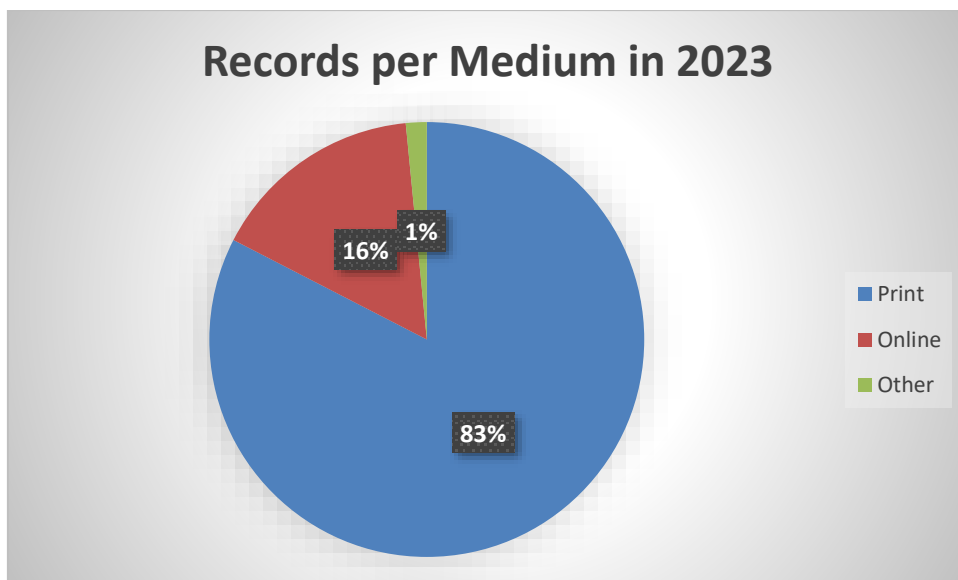
Figure 1 - Number of new and updated records imported into the ISSN portal, 2020-2023



Assignment of identifiers to digital continuing resources have continued to grow steadily. **25,494 new online resources** were identified in 2023, up 7.5% on 2022. These new online resources represent **45%** of ISSN assignments in 2023.

Overall, in January 2024, **372,404 online resources** were identified in the ISSN portal, representing **16%** of total records.

Figure 2 - Breakdown of ISSN records per medium





2.1.2 Serving publishers

ISSN requests

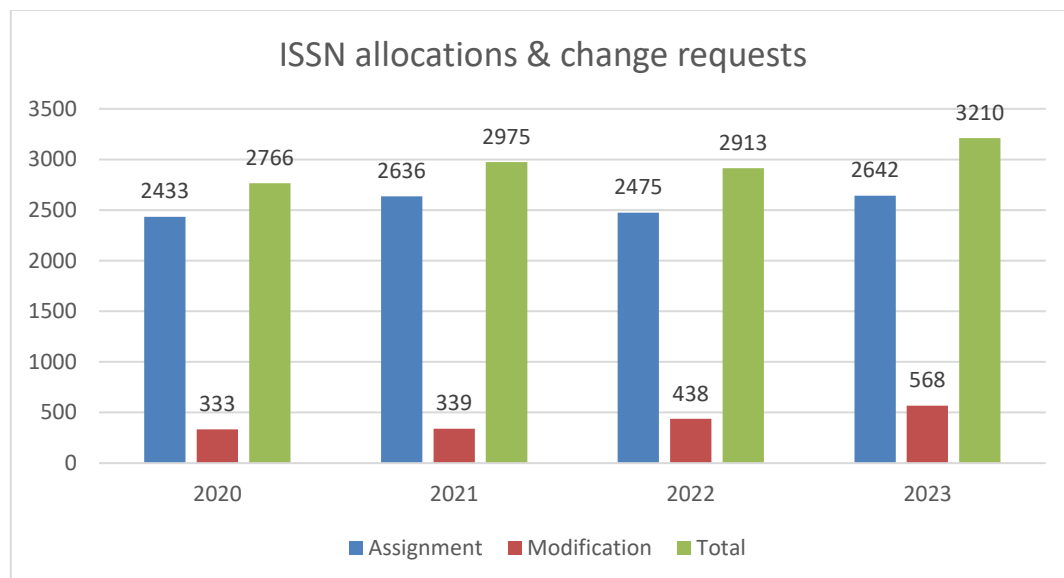
In 2023, **3,210 new ISSN applications** were processed by the International Centre, compared with 2,913 in 2022. 2,582 applications were accepted, i.e. 80%, and 628 rejected, i.e. 20%.

Table 1: Breakdown by type of request and status of ISSN requests processed by the ISSN International Centre in 2023 (Source: ISSN portal)

ISSN allocation & modification requests in 2023	Accepted	Temporary	Subtotal	Other: incomplete, rejected, in progress, pending	Total requests processed
Allocations	2030	198	2228	414	2642
Modifications	354	0	354	214	568
Total	2384	198	2582	628	3210

Note: as a general rule, a publisher's request for identifiers results in the assignment of two ISSNs (print/online).

Fig. 2: Changes in requests for assignments and modifications processed by the ISSN International Centre since 2020



On January 2, 2024, **5,722 publishers** were registered on the ISSN portal. This number is lower than that recorded in 2022, as publishers in countries that have opened a national centre have been removed from the count.

The **breakdown of requests by country** is fairly stable compared with the breakdown for 2022. Publishers from Hong Kong, S.A.R., China are the most active. Pakistani publishers and international organizations follow.

Table 2: Number of active publishers in countries under the responsibility of the International Centre classified by ISSN assigned (cumulative from 2018 to January 2, 2024 - Source: ISSN portal)

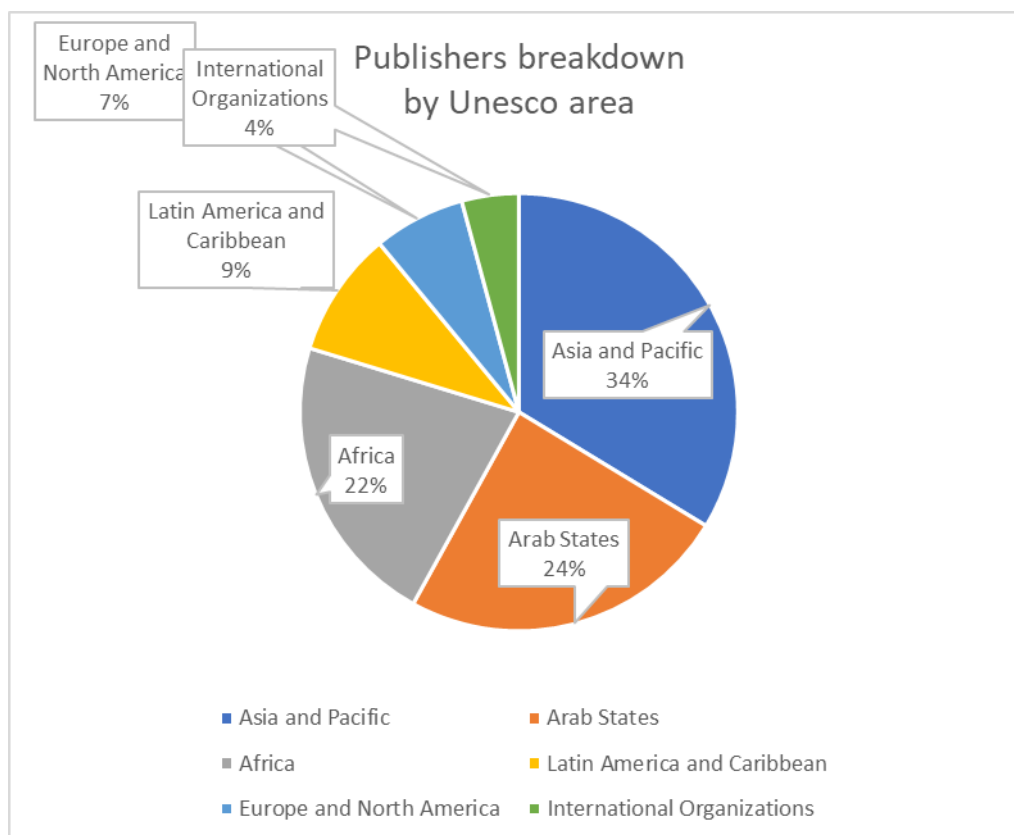
Country	UNESCO regions	Publishers	ISSN assigned	ISSN provisional	Requests processed
Hong Kong S.A.R., China	Asia and the Pacific	369	2667	51	2370
Pakistan	Asia Pacific	928	2004	24	1568
International organizations	N/A	247	1740	53	1285
Bangladesh	Asia Pacific	440	802	25	643
South Africa	Africa	251	769	41	701
Iraq	Arab States	663	665	34	741
Kenya	Africa	167	630	13	542
Taiwan, Province of China	Asia Pacific	350	552	24	481
Kazakhstan	Asia Pacific	240	447	21	398
United Arab Emirates	Arab States	114	262	19	248

Publishers' countries of operation may be associated with UNESCO regions (excluding international organizations). The distribution of publishers by region has changed significantly over the years, with publishers operating in Hong Kong, S.A.R., China, Pakistan and Bangladesh being the most numerous.

Table 3: Number of publishers by UNESCO region under the responsibility of the International Centre (Cumulative from 2018 to January 2, 2024 - Source: ISSN portal)

UNESCO regions	Publishers	ISSN assigned	Requests processed	ISSN provisional
Asia and the Pacific	1928	3769	3086	107
Arab States	1392	1910	1812	166
Africa	1242	2253	2081	131
Latin America and the Caribbean	531	631	679	6
Europe North America	388	1558	1017	178
International Organizations	241	1718	1271	50
Total	5722	11839	9946	638

Fig. 3: Distribution of publishers under the responsibility of the International Centre by UNESCO region (Cumulative from 2018 to January 2, 2024 - Source: ISSN portal)



ISSN assignments by the International Centre

The department assigned **2,865** new ISSNs in 2023, comprising **2,658** confirmed ISSNs and **207** provisional ISSNs. Assignment activity was therefore stable in 2023 compared with 2022.

The figures below do not take into account changes to existing notices.

Table 4: Number of ISSNs assigned by the International Centre from 2018 to 2023, classified by status and media type (Source: ISSN+)

	Confirmed ISSNs			Total confirmed notices	ISSN provisional			Total provisional notices	Total All categories of notices
	Print	On line	Other		Print	On line	Other		
2018	1917	1019	21	2957	142	46	5	193	3150
2019	1455	1496	31	2982	163	88	3	254	3236
2020	1638	1396	20	3054	160	112	4	276	3330
2021	1129	1190	23	2342	153	90	3	246	2588
2022	1381	1210	14	2605	123	83	4	210	2815
2023	1325	1320	13	2658	97	110	0	207	2865

* Any other type of media: CDs, DVDs, USB sticks, etc.

The International Centre serves publishers operating in countries without a national Centre. Publishers in Hong Kong, S.A.R. China, and Pakistan, as well as international organizations, submitted the majority of ISSN requests in 2023 and therefore received the majority of ISSNs assigned.

Table 5: Assignment of confirmed and provisional ISSNs to resources from major countries within the scope of the International Centre from 2018 to 2023 (Source: ISSN portal)

Country	Allocations 2018	Allocations 2019	Allocations 2020	Allocations 2021	Allocations 2022	Allocations 2023
Hong Kong, S.A.R., China	424	346	347	398	368	653
Pakistan	162	205	287	379	433	444
International organizations	308	532	300	236	378	378
Iraq	59	112	101	109	114	141
Kazakhstan	71	63	65	91	69	105
Bangladesh	105	408	129	112	125	98
Taiwan, P.D.C.	106	91	101	112	81	83
Kenya	50	86	92	147	185	82
South Africa	83	117	162	135	172	65
Libya	16	32	22	24	21	56

The process of assigning ISSNs to Springer-Nature publications

Springer-Nature's global workflow consists of the semi-automatic assignment of provisional ISSNs to publications not yet published, followed by confirmation of the provisional ISSNs once the titles have been published. This workflow is based on a monthly report generated and shared to the by Springer-Nature. This report contains a list of titles (and associated metadata). On receipt of this report, the International Centre assigns provisional ISSNs and forwards the information to the relevant national ISSN centres, which will catalogue the published resources and thus confirm the provisional ISSNs. In July 2023, the workflow between Springer-Nature and the ISSN International Centre was enhanced by a shared dashboard. This dashboard makes it possible to differentiate between the different types of request handled or coordinated by the department, whether ISSN assignments or validations, or updates.

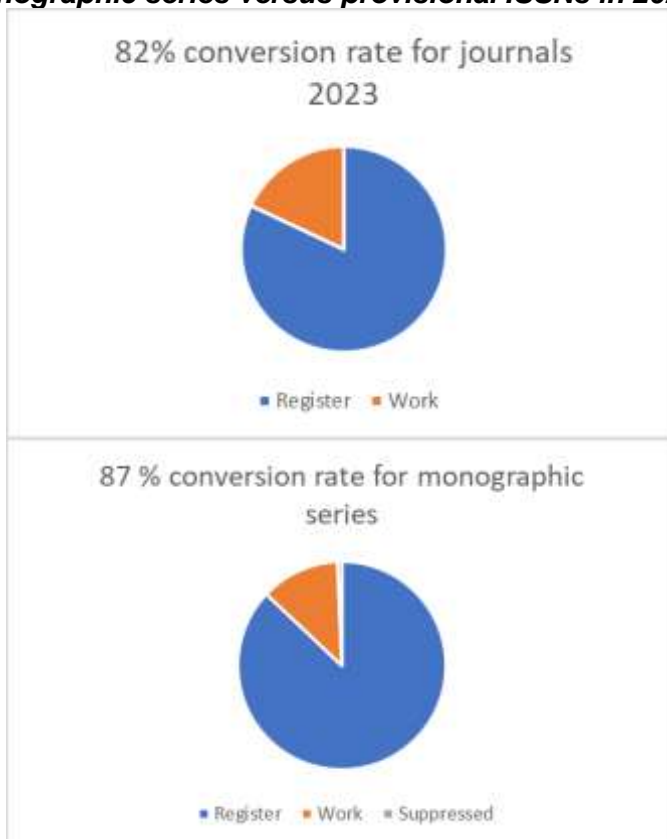
In 2023, **408 ISSNs** were provisionally assigned to publications scheduled by Springer-Nature. Of these provisional **ISSNs**, **351** were confirmed in 2023 by the national centres concerned, including ISSN Switzerland, ISSN Germany, ISSN UK and ISSN Singapore. The validation rate is 85%. Overall, of the 5,973 ISSNs assigned by the International Centre to resources published by Springer-Nature since 2017, **3,334** are now confirmed, of which 351 were confirmed in 2023.



Table 6 - ISSNs assigned to Springer Nature publications and confirmed in 2023 by the ISSN network

2023	Provisional ISSNs	Confirmed ISSNs
Reviews	87	50
Monographic series	321	301
Total	408	351

Figure 4 - Percentage of confirmed ISSNs for Springer-Nature journals and monographic series versus provisional ISSNs in 2023



2.1.3 Relationships with ISSN National Centres

The department focused on training national centres in the use of the ISSN+ dashboard, which flags records with errors for correction by national centres. The team published tutorials for national centres in four languages on Vimeo. Workshops on bibliographic practices were run by the entire department at the ISSN Centres Directors' Meeting held at the Royal Library of Belgium (KBR) in Brussels in October 2023.

Online help pages for ISSN+ national user centres in four languages are regularly updated on the ISSN+ wiki.

In addition to training sessions, the bibliographic expertise provided by the department to national centres is delivered daily via a dedicated messaging system. The number of messages exchanged between national centres and the International Centre is on the increase. The team dealt with 3,160 questions or requests for action, notably concerning ISSN assignment (110), ISSN assignment criteria (35), title changes (65), transfers of responsibility between national centres (480), and requests for corrections (265). In addition, ISSN centres in Central Asia and Latin America are regularly monitored by the department, which organizes specific online training courses.

2.1.4 ISSN data quality plan

ISSN data quality is a key element in increasing the use of the ISSN portal, attracting new customers and establishing partnerships with databases, aggregators and other information providers. The quality plan focuses on the accuracy of bibliographic data, the coverage of identification via ISSNs, the improvement of processes and workflows, and interoperability with partner data. The corrections made by the department when importing records from the national Centres are also part of the quality plan.

6,870 erroneous records were corrected collaboratively, often on a network-wide scale, including 2,030 incorrectly formed titles and 200 duplicated titles. Resource types were added for 3,620 records. Within the scope of the International Centre, records concerning resources from Latin American countries no longer contain errors.

The team also took part in one-off ISSN France projects, notably the digital reproduction of titles published in Algeria during the colonial period. 1,694 records were processed by ISSN France and imported into the ISSN database. Similarly, the publishing entities of 700 ISSN Germany records were corrected. Projects with partners outside the ISSN network also offer opportunities to detect and correct errors in ISSN records in our respective databases, and to improve the coverage of the ISSN database.

CIDEMIS is the automated system managed since 2015 by ABES (Agence bibliographique de l'enseignement supérieur) in cooperation with BnF (Bibliothèque nationale de France) and the International Centre. CIDEMIS is used to manage ISSN assignment requests and record modifications for continuing resources described in the SUDOC database (<http://www.sudoc.abes.fr>), the Union Catalogue of French Higher Education. In the course of their work, SUDOC cataloguers may identify continuing resources that have no ISSN, or whose ISSN data needs updating.

In 2023, **524 new requests** (down 60% on 2022) were created in CIDEMIS and transmitted to the International Centre and its network, excluding ISSN France, which has a specific workflow in CIDEMIS. These requests concerned 364 assignments and 160 updates.

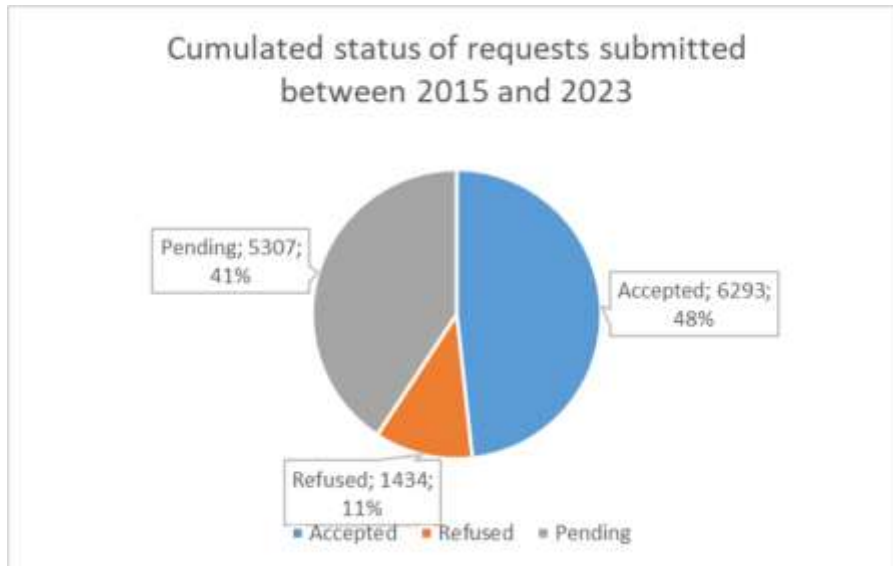
In 2023, **612 requests** were processed by the ISSN network, corresponding to requests from the current and previous years. As a result, 426 ISSNs were assigned and 186 records updated. 40% of total requests were processed by the ISSN network. The department assigned 200 ISSNs and updated 55 records.

Overall, of the **14,000 requests** submitted to CIDEMIS between 2015 and 2023, 60% were processed by the end of 2023 (compared with 49% by the end of 2022). 5,470 ISSNs have



been assigned and 823 records have been updated by the ISSN network at the request of SUDOC libraries.

Figure 5 - Cumulative balance of CIDEMIS applications submitted between 2015 and 2023



The main contributing national centres in CIDEMIS (ISSN Germany, ISSN USA and ISSN Great Britain, with a total of 3,153 requests accepted) are also the most committed to processing pending requests.

Figure 6 - Cumulative balance (2015-2023) of CIDEMIS requests accepted by the most active ISSN centres



Cooperation with the Mir@bel network

A partnership was signed with the Mir@bel network in July 2023, with the aim of mutually enriching the databases. The department now uses Mir@bel tools to monitor a corpus of publications from international organisations, and to correct inconsistencies between the



ISSN database and those of our partners, namely Mir@bel, the SUDOC and the DOAJ (Directory of Open Access Journals).

Cooperation with Ex Libris

This partner reports ROAD records with faulty URLs and titles that are no longer open access. Thanks to this partnership, around 250 ROAD records were corrected in 2023. A specific workflow has been set up to increase efficiency.

Since 2018, **ISNIs** (International Standard Name Identifiers) are gradually being added to ISSN records. These ISNIs identify publishing entities and international publishers. In March 2023, **45,606 records containing ISNIs** were registered in the ISSN database. The department also contributes to enriching the ISNI database by reporting duplicates and supplementing ISNI records with mentions in the original alphabet and links to the institutional websites of issuing bodies. Since autumn 2021, the ISSN International Centre has been part of the ISNI Library Sector Working Group.

2.1.5 Development of the Directory of Open Access Scholarly Resources (ROAD)

3,139 records describing open access (OA) scientific resources were added to ROAD in 2023. Overall, in December 2023, ROAD contained **64,012 open access titles** (+9% on 2022). Open access scientific publications represent 17% of online publications described in the ISSN portal. Progress is satisfactory, despite the definition of new, stricter inclusion criteria.

In the 10 years since ROAD was launched, the ISSN network has increased the number of resources listed in the database by a factor of 9. The two types of publication best represented are still journals and scientific blogs, although there was a marked increase in monographic series in 2023.

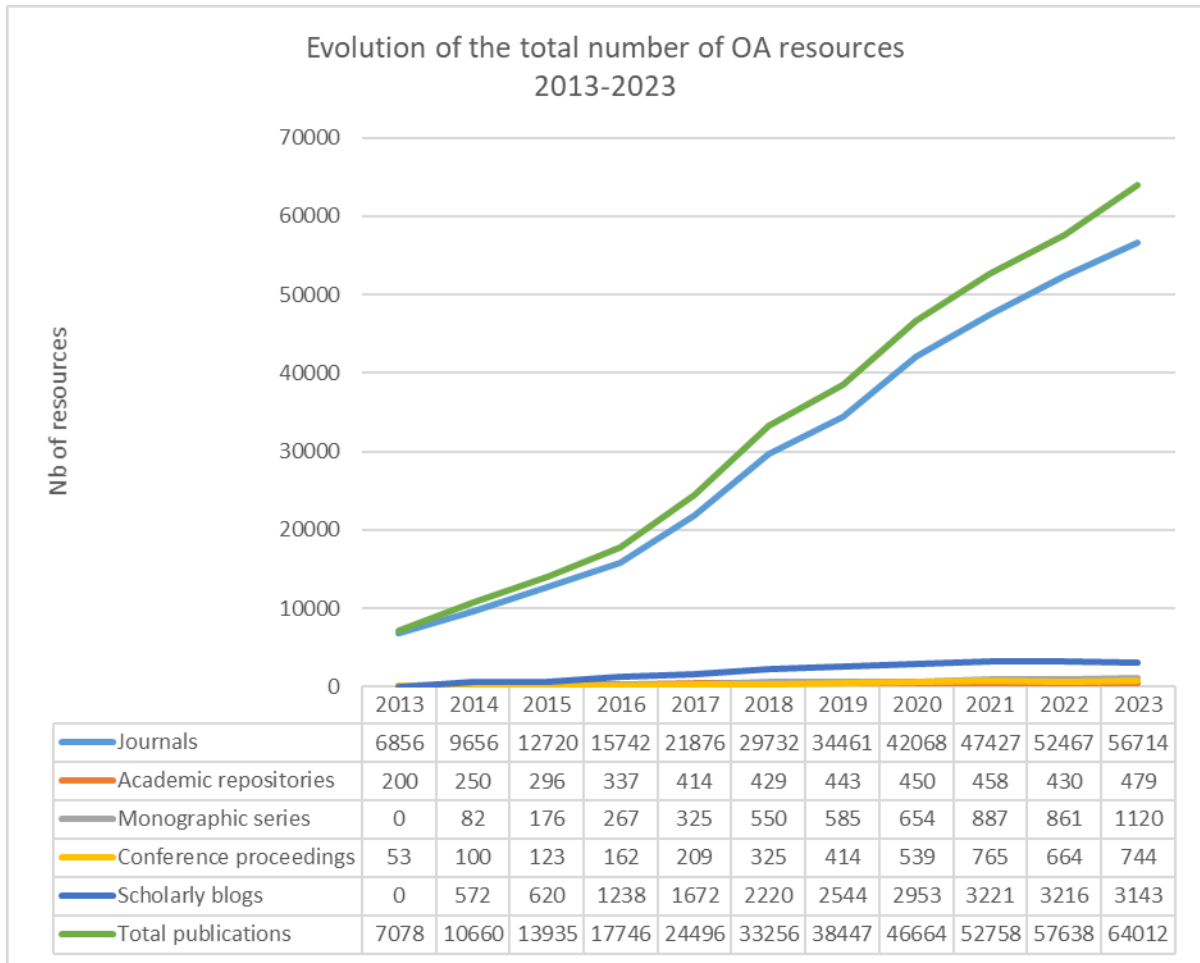
Table 7 - Evolution of the number of resources in ROAD

	2019	2020	2021	2022	2023
Journals	34 461	42 068	47 427	52 467	56714
Academic repositories	443	450	458	430	479
Monographic series	585	654	887	861	1120
Conference proceedings	414	539	765	664	744
Science blogs	2 544	2 953	3 221	3 216	3143
Total publications	38 447	46 664	52 758	57 638	64 012

Source : ISSN+



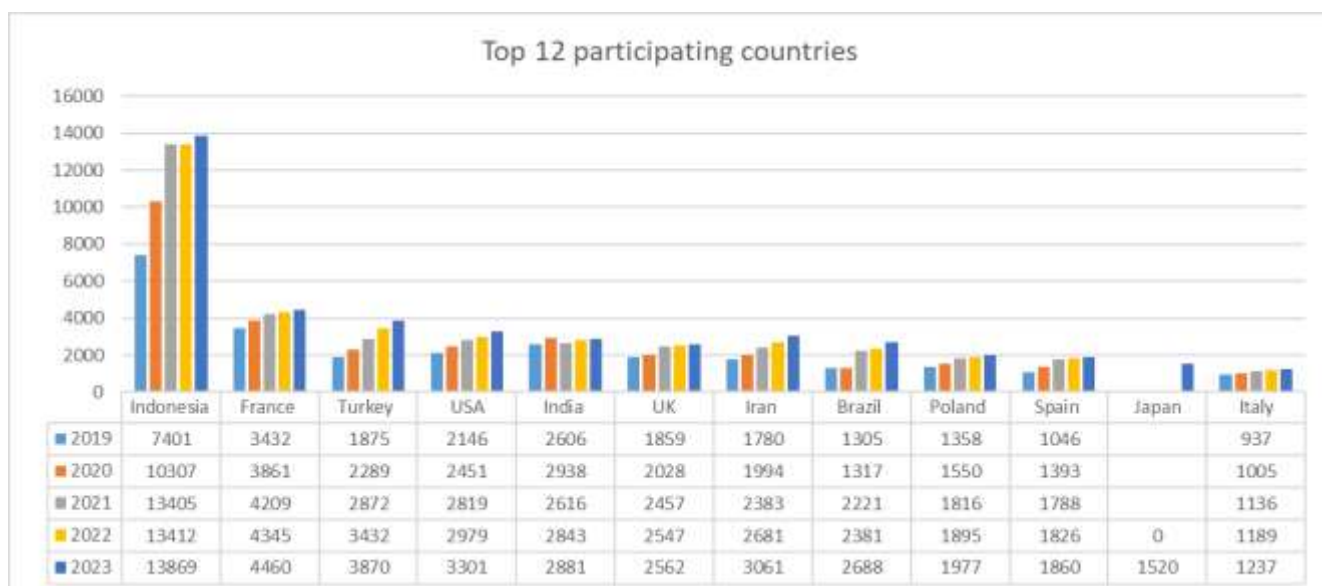
Figure 7 - Total number of open access publications over the period 2013-2023



The **breakdown by contributing country** has not changed significantly since 2019. **Indonesia** remains in the lead with 13,869 open-access resources. Japan joined the ranking in 2023. In total, the top 12 countries account for almost **70%** of all ROAD open access titles.



Fig. 8 - The top 12 national centres contributing to ROAD



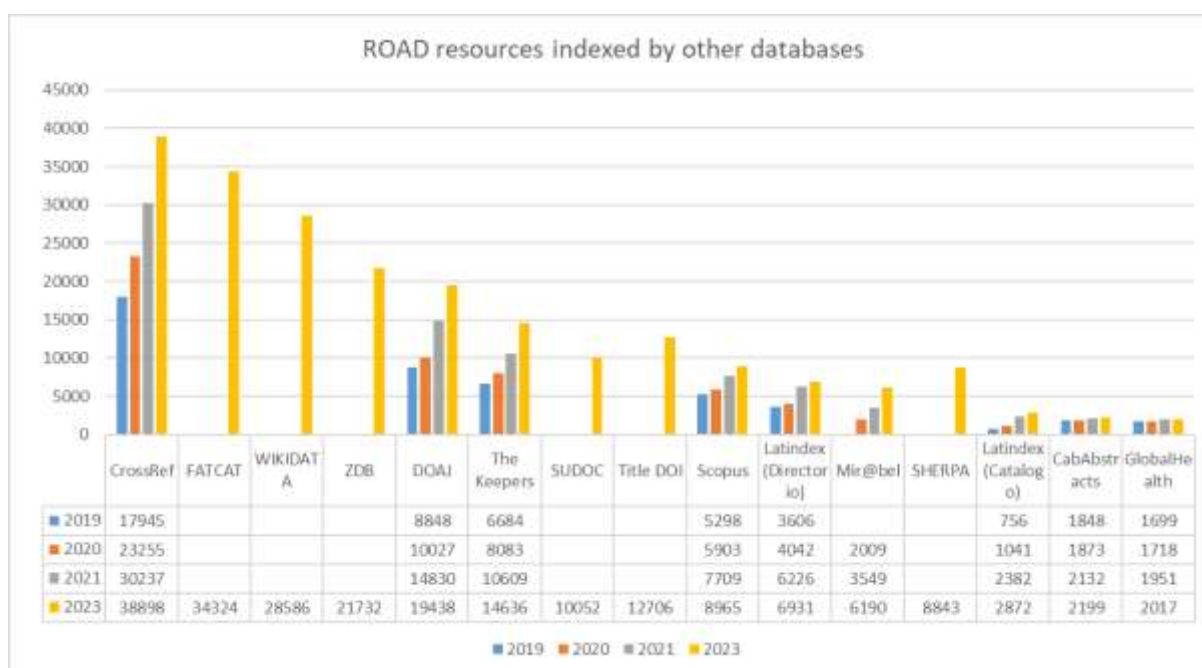
Source : ISSN+

If we consider the indexing by other databases of the open-access resources identified in ROAD, we can observe that:

- 61% of titles are referenced by Mir@bel;
- 60% of resources are identified by Crossref for their content (chapters, articles);
- 19% of these resources have title DOIs;
- 23% of titles are kept and reported in the Keepers Registry;
- 30% are indexed by the Directory of Open Access Journals;
- 15% are indexed by Latindex (Directorio or Catalogo);
- 14% are indexed by Scopus;
- 20% (12,948) are indexed by both Crossref and Keepers Registry;
- 14% (8,755) are indexed by Crossref, Keepers Registry and DOAJ.



Fig. 9 - ROAD resources indexed by other databases



Source : ISSN+

2.1.6 Keepers Registry development

Nineteen agencies share their preservation data with the International ISSN Centre. In 2023, Technische Informationsbibliothek (TIB), Germany, and the National Library of Spain joined the service. The British Library and the National Library of Switzerland withdrew in 2019-2020 and no longer update their data, which is nevertheless retained.

93,384 titles (versus 82,168 last year) are archived by partner agencies, and 22,126 titles (versus 21,172 last year) are archived by at least three agencies (KeepSafe Ratio). Statistics are available at <https://keepers.issn.org/stats>.

The data supplied by the archiving agencies is matched with the ISSN data. If necessary, updates are made in the ISSN portal. In 2023, **300 provisional records** were thus confirmed using data from archiving agencies. If necessary, new eISSN can be assigned by the International Centre and the ISSN Network using data supplied by the archiving agencies.

2.1.7 The development of TRANSFER

The ISSN International Centre collaborates with the TRANSFER working group of the National Information Standards Organisation (NISO), USA, to disseminate information on publisher changes for journal titles. The International Centre operates the Transfer Alerting Service (<https://journaltransfer.issn.org>), which publishes information on these changes free of charge. Information is made available via an RSS feed, a mailing list and an API.

11 new publishers signed the Transfer code of practice in 2023 and were registered on the ISSN portal they use to declare title transfers. **104 publishers** used this service in 2023 and **110 title transfers** were declared by recipient publishers. Sage Publishing, Taylor and Francis and Wiley are the most active recipient publishers, while Wiley, Libertas Academicas and Taylor and Francis are the most active transfer publishers.

2.2 Standardization and International Cooperation activities

2.2.1 ISSN Normative Review Group (ISSN RG)

This working group met **sixteen times** in 2023.

Progress on the revision of the ISSN Manual is a priority, with a view to making it available to ISSN network members in 2024 on the dedicated wiki. The process of proofreading, clarifying and correcting the text and examples is a lengthy one. However, significant progress has recently been made thanks to the link established between the wiki and the Himarc file of the ISSN+ tool, which enables quality control of data in MARC21 format prior to publication in the ISSN portal. This Himarc file, available on the International Centre's Gitlab (<https://gitlab.com/cieps-open-source/himarc>), is the central reference for ISSN data profile.

The multinational publishers wiki has been finalized. The list of multinational publishers has been published on Zenodo in PDF format (<https://zenodo.org/records/7915582>) and Excel format (<https://zenodo.org/records/8321076>). The 300 or so publishers were identified using data from the ISSN portal. The International Centre works with the National Centres on this list to determine their responsibility in assigning ISSNs to these publishers' publications. The list also contains information on the names under which these publishers are known, and a mapping of links between publishers. It also contains links to the ISNI and VIAF databases where these publishers are present. This data is managed by the ISSN network in a regularly updated internal wiki.

2.2.2 Activities within the framework of the International Standard Organisation

The ISSN International Centre Director's term as Chair of ISO Technical Committee 46 Information and Documentation ended in 2023. She continues to take part in the Technical Committee's annual plenary meetings and in the work of the French national mirror committee.

2.2.3 International Federation of Library Associations (IFLA)

Within IFLA, the ISSN International Centre is represented on the following committees:

- the Advisory Committee on Standards,
- the Serials and Other Continuing Resources Section (SOCRS),
- Preservation and Conservation Section (PRESCONS),
- the ISBD Revision Group, chaired by a metadata processing specialist from the ISSN International Centre,
- PRESSoo Review Group.

In 2023, the annual World Library and Information Congress (WLIC) was held in Rotterdam, Netherlands. The Director of the International Centre gave a presentation on Keepers Registry's Submit.Retrieve.Reuse data reuse service.



Following the work carried out by the "ISBD Editorial Group", launched in 2018 to work on the revision of the ISBD, the International Centre continued its participation in the IFLA ISBD for Manifestation working group. The work of this group resulted in a first draft of the "ISBD for Manifestation" (ISBDM) in the form of an online tool under revision since September 2023 <https://www.iflastandards.info/ISBDM/>

The working group held a webinar in February 2024 to launch the expert review phase, and will hold a webinar in April 2024 to launch the international consultation, which will begin in May 2024.

According to an updated timetable, the working group will present a draft ISBDM to the ISBD revision group after the international consultation in autumn 2024, and will then forward the final draft to the IFLA Standards Committee towards the end of 2024 for publication in 2025.

The working group will also present to the ISBD Revision Group and Standards Committee a discussion paper on transforming the ISBD into a full LRM implementation, which would involve rethinking the structure of the ISBD and suggest an integration of all IFLA metadata standards. An official extension of the ISBD revision to include a full implementation of LRM must be formally decided by the ISBD revision group and the Standards Committee.

2.3 Sales, Marketing and Communication Department (VMC)

In 2023, the department's activities focused on the following:

- The renewal of current subscriptions to develop sales in line with the 2023 budget forecast;
- The promotion of the new "Submit.Retrieve.Reuse." service for submitting a list of ISSNs to be verified;
- The prospection for new customers in Europe by publishing news and advertisements in various media.

2.3.1 Sales

Total sales in 2023 increase by 2.3% compared to 2022. However, 2023 revenues are slightly lower than 2021 revenues.

The main services billed in 2023 continue to be Portal subscriptions (57.72% of total revenue in 2023 vs. 56.21% in 2022) and Full Data File (17.81% in 2023 vs. 19.27% in 2022).

Portal revenue increased in 2023 compared to 2022 as some customers increased the number of sessions or accesses to the ISSN Portal. Subscription costs also increased by 2% in 2023. Full data file sales are down from 2022.

OAI-PMH sales increased in 2023.

Regarding the API, 17 customers currently subscribe to the service, and 4 test accounts were created in 2023. These customers are mainly university libraries and multinational publishers.



In 2023, customers subscribing to the International Center services are mainly located in North America and Europe. The breakdown by customer type in 2023 is unchanged from 2022, with academic libraries being the most represented category.

Sales of ISSN credits increased by 9% in 2023 compared with 2022.

2.3.2 Member Country Contributions

In 2023, contributions paid represented 96% of the total budgeted amount. The ISSN International Center has collected some overdue contributions.

2.3.3 Communication and marketing activities

The Sales, Communications and Marketing department continued to pursue its communications strategy in line with the strategic plan, focusing on the following items:

- Current ISSN services and the new "Submit.Retrieve.Reuse" service: the department continued to promote its fee-based services and to prospect new customers in Europe (Germany, Spain, United Kingdom);
- Developing sales in more diversified geographical areas: local partners are currently being identified;
- A consultancy mission began in December 2023 to adjust commercial and communication activities: its report will be submitted in early 2024;
- Communication activities concerning the archiving agencies that joined Keepers Registry in 2023, namely the Leibniz Information Centre for Economics (ZBW), Germany, and the National Library of Spain;
- Seven "Did you know" were posted on the mailing list;
- Five portraits of ISSN network colleagues were published on social media;
- In addition, some professional conferences were sponsored.

Promotion of ISSN services, including the new "Submit.Retrieve.Reuse" service (see Appendix 2)

The service has focused its communications efforts on "Submit.Retrieve.Reuse". This fee-based service enables users to submit a list of ISSNs and retrieve basic ISSN metadata, Keepers Registry data and ISSN partner data. Users can reuse the resulting data for their own purposes.

Below is a list of the main communication and marketing activities:

- The service sent emails to existing customers to renew subscriptions and promote new services;
- The department canvassed academic libraries, mainly in Germany, Spain and the United Kingdom, to promote the portal and the "Submit-Recover-Reuse" service;
- The Director of the ISSN International Centre was interviewed by the French magazine **Archimag** (issue 365, June 2023) about current projects.
- An advert on Submit.Retrieve.Reuse. was published in **Against the Grain** magazine (vol. 35, issue 5, November 2023).
- An announcement about the ISSN portal and "Submit-Retrieve-Reuse" features has been published in the French magazine **Archimag** (issue 369, November 2023).

The International Centre is listed in the directory of suppliers published by **Research Information**.



The service published several ads in various issues of **Information Today & Computers in Libraries**:

- **Information Today:** Issues for June 2023, July/August 2023, September 2023, October 2023, November 2023
- **Computers in Libraries:** June 2023, July/August 2023, September 2023, October 2023, December 2023 issues

✚ **Information for publishers on the role of the ISSN International Centre in ISSN assignment**

The department has carried out several communication activities to inform publishers of the role of the ISSN International Centre and to encourage publishers already registered to purchase additional ISSN credits for their publications:

- **International organizations:** in 2023, the department subscribed to the Directory of International Organizations; 1,315 international organizations not yet registered on the ISSN portal were selected and an e-mailing was sent to them. The department will continue to target these prospects in 2024.
- **E-mails to current publishers registered on the ISSN portal:** One of the aims of the service is to build customer loyalty and raise awareness of the benefits of ISSN assignments. The International Centre regularly sends out various e-mails to all publishers registered on the ISSN portal.

✚ **Press release issued with ZBW - Leibniz Information Centre for Economics, Germany, as the new Keepers Registry agency**

The International Centre and the ZBW - Leibniz Information Centre for Economics have issued a joint press release to mark the integration of the ZBW into the Keepers Registry. The press release was published in various media, including:

- ZBW - Leibniz Information Centre for Economics website: <https://www.zbw.eu/en/about-zbw/news/single-view/news/zbw-is-official-archive-partner-for-issn-international-centre-and-keepers-registry>,
- **UKSG ENews** newsletter #533: <https://www.uksg.org/newsletter/uksg-enews-533/zbw-official-archive-partner-issn-international-centre-and-keepers>,
- **Information Today Weekly News Digest:** <https://newsbreaks.infotoday.com/Digest/The-ISSN-International-Centre-Signs-Its-First-German-Partner-157191.asp>.
- **IDW Online:** <https://idw-online.de/en/news809139>.
- The ISSN International Centre website and social media.

In early 2024, the Leibniz Information Centre for Science and Technology (TIB) and the National Library of Spain joined the Keepers Registry, and press releases were also issued.



Communication actions towards the ISSN network

In 2023, the department introduced ISSN network colleagues to the entire network via its mailing list and social media. The aim is to get to know ISSN colleagues working in different national centres around the world. In 2023, member profiles for ISSN Argentina, ISSN Belgium, ISSN Brazil, ISSN Mauritius and ISSN Tunisia were distributed. The department will continue this communication initiative in 2024.

The department has published a number of "Did you know" notices, mainly focusing on bibliographic changes in the year 2023. These "Did you know" were sent to the ISSN network and to customers.

At the ISSN Centre Directors' meeting held in Belgium in October 2023, the department presented its communications activities.

ISSN customer survey

The department launched a survey of current customers in 2023 to find out more about their use of ISSN data, the features they appreciate and their needs for improving the future ISSN portal.

ISSN portal survey	
Number of messages sent	410
Number of open messages	123
Total number of responses	91
Types of institution	
University library	67
National Library	7
Other	6
Research Institute	5
Collective catalog	3

The survey shows that the ISSN portal is used daily by subscribing institutions. Searches are carried out by ISSN or by title, mainly using the simple search tab. The advanced search tab is used occasionally.

Customers display data in MARC21 format and with labels. UNIMARC format is not widely used. Customers download ISSN data in MARC21-XML (32%), CSV (30%) and MARC 21-ISO 2709 (19%).

The most useful metadata for searches are ISSN (96%), title (92%), publication dates (73%), publisher (68), and linked titles (56%).

Customers who use the ISSN portal for manual searches do not seem to be interested in other ISSN services, with the exception of the API.



🌐 News published on ISSN's corporate website and on social media

▪ Corporate website

22 news items were published on www.issn.org in 2023. All news items were translated into the six official UN languages.

▪ Social media

- The **ISSN Facebook page** (<https://fr-fr.facebook.com/ISSNInternationalCentre>) reached **3,200 likes** in March 2024 (3,105 likes in March 2023) and **3,496 followers** in March 2024 (3,244 followers in March 2023). The ISSN Facebook page is regularly updated with news, photos and videos from the ISSN network.
- In March 2024, the **ISSN IC Twitter account** (https://twitter.com/issn_ic) had around **1,446 followers** (**1,342 followers** in March 2023). The Twitter account counts between 16 and 24 new subscribers per month. **92 tweets** were issued in 2023, reaching **30,000 impressions**.
- <https://fr.linkedin.com/company/issn-international-centre>: a corporate LinkedIn page was created in October 2021. In March 2024, this account had **327 followers** (**263 followers in February 2023**).

▪ Newsletter

- In January 2024, the newsletter had **16,547 subscribers**. The average monthly growth rate is 80 subscribers.

🌐 Participation in professional events

The department took part in three trade events:

-UKSG 46th Annual Conference and Exhibition, April 13-15, 2023, Glasgow, UK
<https://www.uksg.org/event/conference23>

- IFLA WLIC 2023, August 21-25, 2023, Rotterdam (Netherlands)
(<https://2023.ifla.org/>): the ISSN International Centre was a premium exhibitor and gave a presentation entitled "Managing your digital archiving policy with Keepers Registry".

- Frankfurt Book Fair 2023, October 18-22, 2023, Frankfurt, Germany, as delegates.



2.4 Information Systems Department

In 2023, the IT department continued to provide technical services to International Centre staff, the ISSN network and external customers and partners, notably through regular data export.

In 2023, the IT team consists of the department manager, two junior developers, a project manager and a part-time IT consultant who reports to the Director.

The project manager is responsible for the practical coordination of teamwork and internal reporting activities. A junior developer is specifically responsible for the development and maintenance of scripts and processing tools, as well as coordination with the external service provider on infrastructure issues. Another junior developer is a member of the development team for ISSN + and the new portal, which relies on the contribution of contractor Anybox.

In 2023 and until the end of January 2024, an independent business analyst contributed to the planning and specification of the new portal.

The agile method and procedures were reintroduced in 2023 by the consultant in all the department's activities. This means that the team is flexible and constantly reviews its own activities. In particular, all new developments and support tasks are presented to the manager and the whole team every fortnight.

2.4.1 Going live with ISSN+ and further developments

The ISSN+ production tool continued to be a major focus of activity for the IT department in 2023.

As was already the case in 2022, two senior Anybox developers, who have been working on the project since 2019, continued their work on ISSN+. A third Anybox junior developer was added at the end of 2022, not least to contribute to the additional workload generated by the "new portal" project. As mentioned above, one of the two "in-house" junior developers is also part of the team.

The following elements were developed between May 2023 and March 2024 and have significantly improved the application, particularly with a view to paving the way for new services to be made available through the new portal:

- Navigation of publishers and issuing bodies,
- Consultation based on a search (e.g. limit title consultation to the records of a specific search),
- Submission of title lists (in order to retrieve the corresponding ISSNs),
- Search for all coded fields, including 008 and leader,
- ISSN "family graphs": ISSN-L, extended family, ISSN-H (although ISSN-H as such is not yet designated),
- Automatic transliteration of the Greek alphabet,
- tagging of ISSN "pre-publication" records,
- Dedicated export for mass modification/import tasks,
- Multi-selection of individual notices on several pages,
- Addition of a new 857 tag for web archives,
- Dashboard for monitoring ISSN blocks,
- New ISO 15924 codes for identifying scripts in fields 880 "original entry",
- Automated URL verification (856/857),
- Dashboard for tracking URL status,



- New indexing logic: more efficient in terms of response time, reinforcement of specific records in relevance sorting),
- New dashboard for 880 tags (transliteration/romanization control and original script entries).

In addition, numerous bugs have been fixed and small improvements made wherever necessary.

2.4.2 Technical support for the ISSN International Centre

The contract with Normaprint, in charge since 2016 of monitoring and managing ISSN IC's local IT system infrastructure, continued into 2023.

Normaprint carries out regular checks and support, and no downtime has been reported in 2023 for the internal services.

The following points received particular attention during this period:

- In order to take the worst-case scenarios into account, a long-term archiving workflow was set up using Amazon Glacier, with distributed copies of our data and software stored in data centres located on different continents and made available to a partner, Public Knowledge Project in Canada, which would be able to retrieve our core data should the need arise;
- security has been reinforced in the offices: a remote surveillance service has been set up to cover fires and possible intrusions.

2.4.3 Towards a new ISSN portal

The current ISSN portal is basically functional, but practice has shown that it is difficult to maintain and improve, due to its specific architecture and the way it has been coded. It is based on a version of the Drupal CMS that is no longer maintained. Switching to a newer version would require a major overhaul. For these reasons, it was decided that the best solution would be to develop a new version of the portal closely linked to ISSN+.

Nevertheless, steps have been taken to maintain the current portal in as satisfactory a state as possible for users, for example by reducing downtime and displaying appropriate error messages when necessary.

In 2022, the Governing Board approved a plan for a complete overhaul of the existing portal and corporate website. The aim is to set up an integrated site, where the data production source, managed by ISSN+, will be made available to users, without the tedious step of transferring and loading intermediate data.

A freelance business analyst was hired to help redesign the public data exposure tool and its various components. His objective was to link this new portal as closely as possible to ISSN+, in order to benefit from existing code and obtain a set of logically articulated components corresponding to our different needs. With the team's help, he produced detailed specifications, and the developers began work on the new portal project in October 2023.

From this starting point, it was decided that most of the work on ISSN+ should be closely linked to the developments of the new portal. This meant that a number of new modules and enhancements that had been planned for the production tool, such as ISSN-H, were put on the back burner.



A freelance web designer was also hired to work on all UX/UI specifications concerning the logic of the new site, its look and feel, and accessibility. She works in close collaboration with the developers.

The portal project has been divided into logical sub-sections, the first of which is the availability of ISSN data with searchable, downloadable and displayable records for external users in various formats. This is the central part of the "MVP" (minimum viable product), which should be available to some users in July 2024. This MVP has itself been divided into 4 consecutive "stages", and the first stage is now complete.

The team is now tackling one of the most challenging parts of the project, namely "advanced" or "expert" search. To ensure that our developments match user expectations, we have scheduled a series of interviews on this specific topic with five different institutions that have been using our services for a long time.

2.4.4 Deployment of IT tools

The ISSN International Centre uses the following tools to facilitate its daily processes and improve its efficiency.

- **Gitlab**

Applications, services and scripts (including the ISSN portal, ISSN+, etc.) are managed in a common "Gitlab" account. This also means that a "code of good practice" has been established concerning the procedure to be followed when any modification needs to be made to a piece of code.

- **Freescout**

The external ticketing service (Freescout) has been extended and improved. Thanks to this application, International Centre staff can now share and process all requests submitted by national centres and other partners in a fully transparent way. It also enables better tracking of outstanding issues and improves cooperative working between staff members.

- **OpenProject and Jira**

The OpenProject project management system used by the development team was replaced at the end of 2023 by Jira, a cloud-based system, after a careful evaluation of the various alternatives. This change was deemed necessary as the complexity of the workload increased considerably after the launch of the new "portal project" (see below).

- **Xwiki**

This tool is used to host three different services (as specific "Wikis"):

- identification of multinational publishers with national centres,
- ISSN Manual,
- ISSN Plus help pages.

With the support of a senior Xwiki consultant, a direct link has been established between the MARC21 metadata schema maintained for ISSN Plus (the "HiMarc" schema) and the relevant pages of the ISSN Manual. The various tables corresponding to the relevant MARC21 fields are now automatically generated for this authoritative source. This update avoids discrepancies between the production tool and the ISSN Manual made available to the ISSN Network.



A Glossary tool has also been activated and will be used for the ISSN Manual and ISSN Plus help pages. This glossary should make it possible to produce authoritative multilingual definitions and improve automatic translations into different languages. There is also a plan to introduce a simplified machine translation module linked to the Deep-L API, which should make it easier to manage versions in other languages.

A file upload module has also been implemented to better manage screenshots and other illustrations used in ISSN Plus help pages.

- **Weblate**

This application was set up to manage multilingual translations of the ISSN+ software interface.

- **Mailjet**

The International Centre team regularly uses this service to manage mass e-mailings to our partners and contacts.



Conclusion

The International Centre continues to invest heavily in applications and services to enhance its productivity and that of its network. It relies both on a professional team that benefits from regular training, and on service providers who have been working for the Centre for many years. The main objective is always to provide the best service and most reliable data to its partners and subscribers. Positive feedback from subscribers and colleagues is a source of great satisfaction for the Centre International Centre team. These positive assessments are extremely stimulating for us to continue this concerted process of modernization and adaptation in the global context of the development of open science, which emphasizes the central role of identifiers.

Today, the International Centre and its network are working together to identify areas of progress for the period 2025-2029, focusing on strengthening the ISSN network, opening centres in strategic countries, finding new customers, expanding the Keepers Registry and ensuring a smooth integration into the ecosystem of current and future identifiers. The new portal will be a key element in this strategy, and the entire team is mobilized to make this transition a success, in a way that is transparent to all our partners and subscribers.



APPENDICES

APPENDIX 1: Usage statistics for the ISSN institutional website and ISSN portal in 2023

APPENDIX 2: Examples of advertisements, "Did you know" and press releases; list of communication initiatives in 2023



APPENDIX 1: Statistics on use of the ISSN institutional website and ISSN portal

1/ Use of the corporate website (<https://www.issn.org>)

Over the past few years, the ISSN International Centre has enhanced its corporate website, providing information in all six official languages of the United Nations. As a result, statistics show that the site is now widely used.

1,385,113 pages were consulted during the period, and **1,174,302** unique pages were viewed, compared with 1,187,914 last year (+15%).

539,557 users were registered in 2023 (stable figure), including **532,222** new users.

User languages are mainly **English and Chinese** (39% and 22.94% of users respectively), followed by **Spanish** (6.57%) and **French** (2.38%).

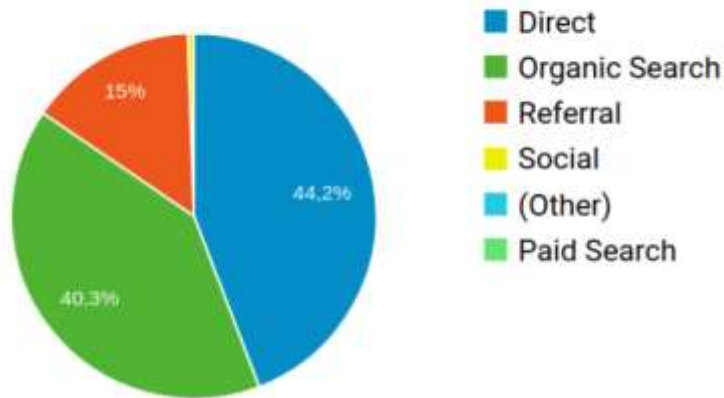
Table 1 - Breakdown of visits to the corporate website for the 10 most active countries in 2023

Country	Percentage of total visits
<i>China</i>	23,38%
<i>India</i>	9,64%
<i>United States of America</i>	9,05%
<i>Spain</i>	3,76%
<i>Mexico</i>	3,59%
<i>Brazil</i>	2,63%
<i>France</i>	2,51%
<i>South Korea</i>	2,39%
<i>Indonesia</i>	2,24%
<i>Germany</i>	2,13%

Visits to the ISSN institutional website come from direct access (44.2%), search engines (40.3%) and other websites (15%), in particular elsevier.com (50% of referrals from other websites). Social media are not widely used (0.5%). Around 25% of the most-visited pages are still those relating to the List of Title Word Abbreviations (LTWA).



Fig. 1 - Corporate site acquisitions in 2023



2/ Using the ISSN portal (<https://portal.issn.org>)

In 2023, **3,624,085 visits** (+17% on 2022) were recorded on the ISSN portal, with an average visit duration of 3 min 4s (541,579 using a smartphone, i.e. around 15%). **61% of visits** bounced, i.e. left the site after one page. On average, there were **2.7 actions** (page views, downloads, outbound links and internal site searches) per visit.

Visitors come mainly from the **USA** (12.4%), **India** (12.3%), **Brazil** (5.7%), **Indonesia** (5.2%) and **China** (4.6%).



Table 2 - Breakdown of visits to the ISSN portal by country in 2023

COUNTRY	VISITS
United States	12.4% 447,692
India	12.3% 447,182
Brazil	5.7% 206,462
Indonesia	5.2% 186,925
China	4.6% 167,028
France	3.3% 118,236
United Kingdom	3.1% 112,160
Spain	3.1% 111,454
Mexico	2.3% 84,981
Russia	2.3% 83,742
Turkey	2.3% 82,800
Germany	2.2% 80,607
Iran	2% 70,940

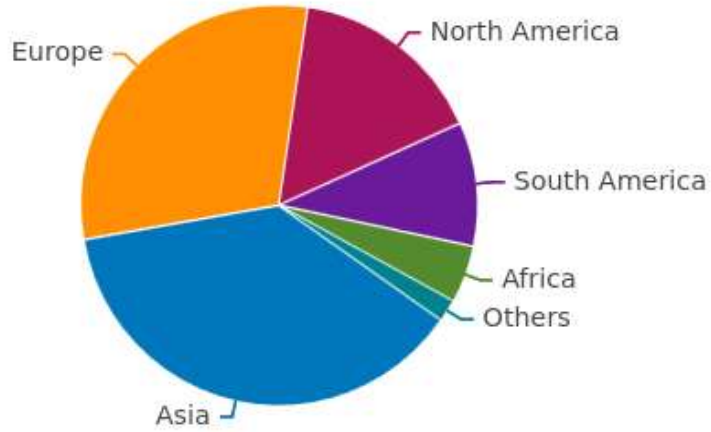
3,624,085 visits



7,625,359 pages were consulted during the period (-18% vs. 2022) and **5,813,277** unique pages were viewed (-7% vs. 2022). Users performed **1,239,119** searches on the portal (-10% vs. 2022) using **500** unique **keywords**. There were **51,699** downloads (+ 19%), including 47,531 unique downloads.

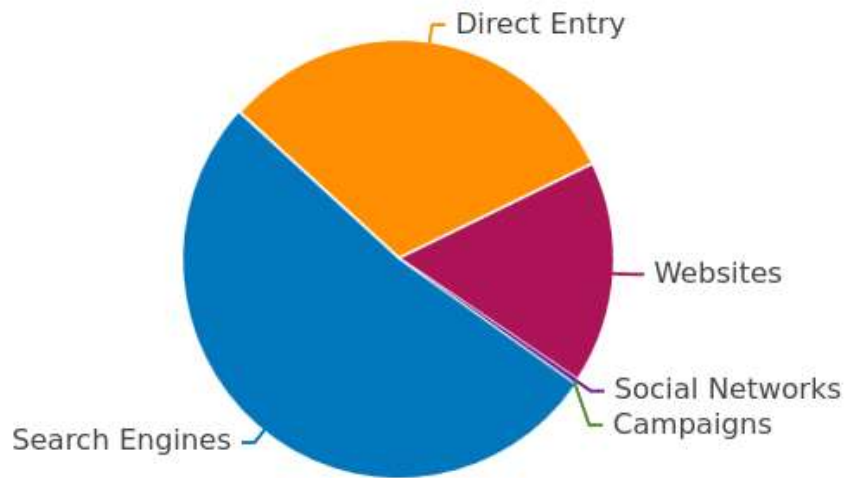


Fig. 2 - ISSN portal visits by continent in 2023



As the graph below shows, search engines are the main access route to the ISSN portal for users, direct entries the second access route and websites the third access route.

Fig. 3- ISSN portal acquisitions in 2023





Below is a list of the main websites providing access to the ISSN portal:

WEBSITE	▼ VISITS
doaj.org	11.9% 71,455
www.issn.org	4.7% 28,146
www.mendeley.com	4.7% 27,885
catalogue.bnf.fr	4.1% 24,442
www.doaj.org	2% 11,845
eurekamag.com	1.7% 10,438
es.wikipedia.org	1.5% 8,951
fr.m.wikipedia.org	1.5% 8,919
rsf.research.ac.ir	1.3% 7,533
es.m.wikipedia.org	1.2% 7,445
fr.wikipedia.org	1.1% 6,481



APPENDIX 2: Examples of ads, "Did you know" and press releases:

DISCOVER OUR NEW SERVICE!

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INTERNATIONAL CENTRE

Submit
Retrieve
Reuse

- **SUBMIT YOUR LIST OF ISSNS THROUGH A TABULAR FILE**
- **RETRIEVE CORE ISSN METADATA, KEEPERS AND PARTNERS DATA**
- **REUSE THE RESULTING FILE FOR YOUR OWN PURPOSES**

Contact sales@issn.org

again be trusted. Collaboration — across institutions, industry, and governments — is key. If we want to go far, we'll have to go together.

References

Bangani, Siviwe. 2021. "The Fake News Wave: Academic Libraries' Battle against Misinformation during COVID-19." *The Journal of Academic Librarianship* 47 (5): 102390. <https://doi.org/10.1016/j.acalib.2021.102390>.

"Framework for Information Literacy for Higher Education." Association of College & Research Libraries (ACRL). February 9, 2015. <https://www.ala.org/acrl/standards/ilframework>.

"Confidence in Research — Elsevier." n.d. [Confidenceinresearch.elsevier.com](https://confidenceinresearch.elsevier.com/). <https://confidenceinresearch.elsevier.com/>.

Elsevier. n.d. "Paving the Way to Increase Diversity in Journals — and Research." Elsevier Connect. Accessed August 28, 2023. <https://www.elsevier.com/connect/reviewers-update/paving-the-way-to-increase-diversity-in-journals-and-research>.

San Diego Circuit. (2023, February 10). Library Toolkit for Addressing Health Misinformation. <https://libguides.sdsu.edu/library-toolkit-addressing-health-misinformation>.

"Joint Commitment for Action on Inclusion and Diversity in Publishing." n.d. Royal Society of Chemistry. Accessed August 28, 2023. <https://www.rsc.org/policy-evidence-campaigns/inclusion-diversity/joint-commitment-for-action-inclusion-and-diversity-in-publishing/>.

Saunders, Laura. 2023. "Librarian Perspectives on Misinformation: A Follow-up and Comparative Study | Saunders | College & Research Libraries, v.84, n.4." *Crl.acrl.org*. Accessed August 28, 2023. <https://crl.acrl.org/index.php/crl/article/view/25976/33915>.

"US Library Survey 2022." n.d. Ithaka S+R. Accessed August 28, 2023. <https://sr.ithaka.org/publications/us-library-survey-2022/>.

Author's note: The personal quotes used in this article are from direct conversations with academic librarians. Each individual quoted has given consent to have their commentary published as part of this piece. 🐾

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COMPUTERS IN LIBRARIES | Uncovering Their History: Building a Photographic Inventory Database of Grave Markers

Tools Used

- Data cleaning and publication: Google Sheets—no cost with a Google/Gmail account (sheets.google.com)
- Local development environment: Local by Flywheel—no cost (flywheel.com)
- Visual Studio Code for PHP editing/customization of CSS, etc.—no cost (code.visualstudio.com/download)
- Presentation layer for database: wpDataTables—\$69–\$389, annual or lifetime tiers available (wpdatatables.com)
- ACF Pro—\$49–\$289, annually (advancedcustomfields.com/pro/)
- Custom Post Type UI—no cost (wordpress.com/about/custom-post-type-ui/)
- Customized free theme: Influences (from SiteOrigin)—no cost (siteorigin.com/themes/influences/)
- WordPress Importer—no cost (wordpress.org/about/wordpress-importer/)
- WordPress Ultimate CSV/XML Importer Pro custom fields importer by Smashcode—\$149–\$199 (smashcode.com/wp-ultimate-csv-importer-pro.html)

In Part II, I'll cover the challenge of deploying an even larger database that serves as a photographic inventory of the Ancient Burying Ground's monuments, gravestones, plaques, and other site-based artifacts on a newly redesigned WordPress website. 📍



Sharon Clapp is the digital resources librarian at Central Connecticut State University's Eshu Burnett Library. She has an M.L.I.S. and has worked with library systems, virtual reference, user experience design, and website development since 1998. Clapp received herms and a promotion to associate librarian in 2019. She is also an avocational archaeologist and long-serving former museum trustee for the Institute for American Indian Studies Museum in Washington, Conn.

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Name of e-mailing	Date	Target	Open rate	Clicks
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Did you know? "List of multinational publishers	19/04/2023	Network	40,80%	83,94%
New codes to identify the type of continuous resources	28/09/2023	Network	32,98%	54,49%
Do you know the "ISSN IC contacts"?	February and April 2023	Network	N/A	N/A
Did you know about customer "subscription renewals"?	September and November 23	ISSN portal customers	48,00%	112,50%
Did you know that "The importance of the place of publication"?	06/12/2023	Network	29,47%	62,14%
Do you know the "ISSN API"?	15/06/2023	ISSN portal customers	40,43%	47,37%
ISSN CUSTOMER SURVEY				
English ISSN portal survey	24/04/2023	ISSN portal customers	33,05%	88,61%
Survey of the French ISSN portal	24/04/2023	ISSN portal customers	32,81%	57,14%
ISSN Spanish portal survey	24/04/2023	ISSN portal customers	41,82%	113,04%
ISSN portal survey - English reminder	04/05/2023	ISSN portal customers	24,37%	100%
ISSN portal survey - French reminder	04/05/2023	ISSN portal customers	36,51%	52,17%
Portal ISSN Spanish survey Reminder	04/05/2023	ISSN portal customers	30,91%	135,29%
Portal ISSN Spanish survey Reminder	15/05/2023	ISSN portal customers	30,91%	129,41%
ISSN portal survey - French reminder	15/05/2023	ISSN portal customers	25,40%	50%
ISSN portal survey - English reminder	15/05/2023	ISSN portal customers	24,47%	96,55%
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Meet the members of the ISSN network! BEL	28/07/2023	Network	38,77%	48,09%
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Meet the members of the ISSN network! ARG	10/10/2023	Network	34,59%	32,12%
Meet the members of the ISSN network! BRAZIL	27/11/2023	Network	32,63%	37,66%
Customer prospecting (promotion of ISSN + SRR portal)				
ISSN services - prospecting Germany	15/05/2023	prospecting	19,48%	40%
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Subscribe to the ISSN portal! UNITED KINGDOM	18/09/2023	prospecting	73,63%	108,21%
Subscribe to the ISSN portal! Germany	18/09/2023	prospecting	10,67%	75%
Subscribe to the ISSN portal! Spain	19/09/2023	prospecting	58,51%	114,55%
Board of Directors				
Photos of the CISO Board of Directors	15/05/2023	Network	31,22%	34,46%
E-mails to ISSN publishers and new international organizations				
ISSN credits e-mailed to ISSN publishers	12/05/2023	ISSN portal customers	66,93%	2,35%
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Get more ISSN credits! International organizations	08/09/2023	Registered ISSN publishers	55,09%	31,21%
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English subscription renewal	12/09/2023	ISSN portal customers	48,63%	116%
Subscription renewal Agencies	12/09/2023	ISSN portal customers	44,79%	109,30%
Renewal Subscription data file	12/09/2023	ISSN portal customers	58,82%	140%
Renew your ISSN portal subscription!	01/12/2023	ISSN Customer portal	52,35%	91,72%
Send an e-mail to publishers already registered for ISSN transfer				
1,2...TRANSFER!	12/09/2023	Contact transfer	45,45%	40%
E-mails to customers and contacts prior to ISSN exhibitions				
Let's meet! FBF English	18/09/2023	ISSN portal customers	35,50%	40,24%
Let's meet! French FBF	18/09/2023	ISSN portal customers	31,15%	26,32%
Let's meet! Spanish FBF	18/09/2023	ISSN portal customers	34,43%	23,81%
Let's meet! FBF English publishers	18/09/2023	Registered ISSN publishers	54,60%	18,70%
Discover ISSN services! IFLA	03/10/2023	Ifla contact list	29,60%	31,06%
Emails to prepare the CISO directors' meeting				
D-38 before the ISSN directors' meeting in Brussels	15/09/2023	DM delegates	56,52%	23,08%
Welcome to Belgium for the ISSN directors' meeting	28/09/2023	DM delegates	78,72%	40,54%
5 days to go until the ISSN directors' meeting in Brussels	18/10/2023	DM delegates	50%	55,17%



Welcome to Belgium for the ISSN directors' meeting	19/10/2023	DM delegates	67,24%	66,67%
Take our survey to improve our awareness campaign!	27/11/2023	DM delegates	32%	125%
Emailing for the Christmas season				
Best wishes for the festive season!	18/12/2023	Network	32,05%	70%