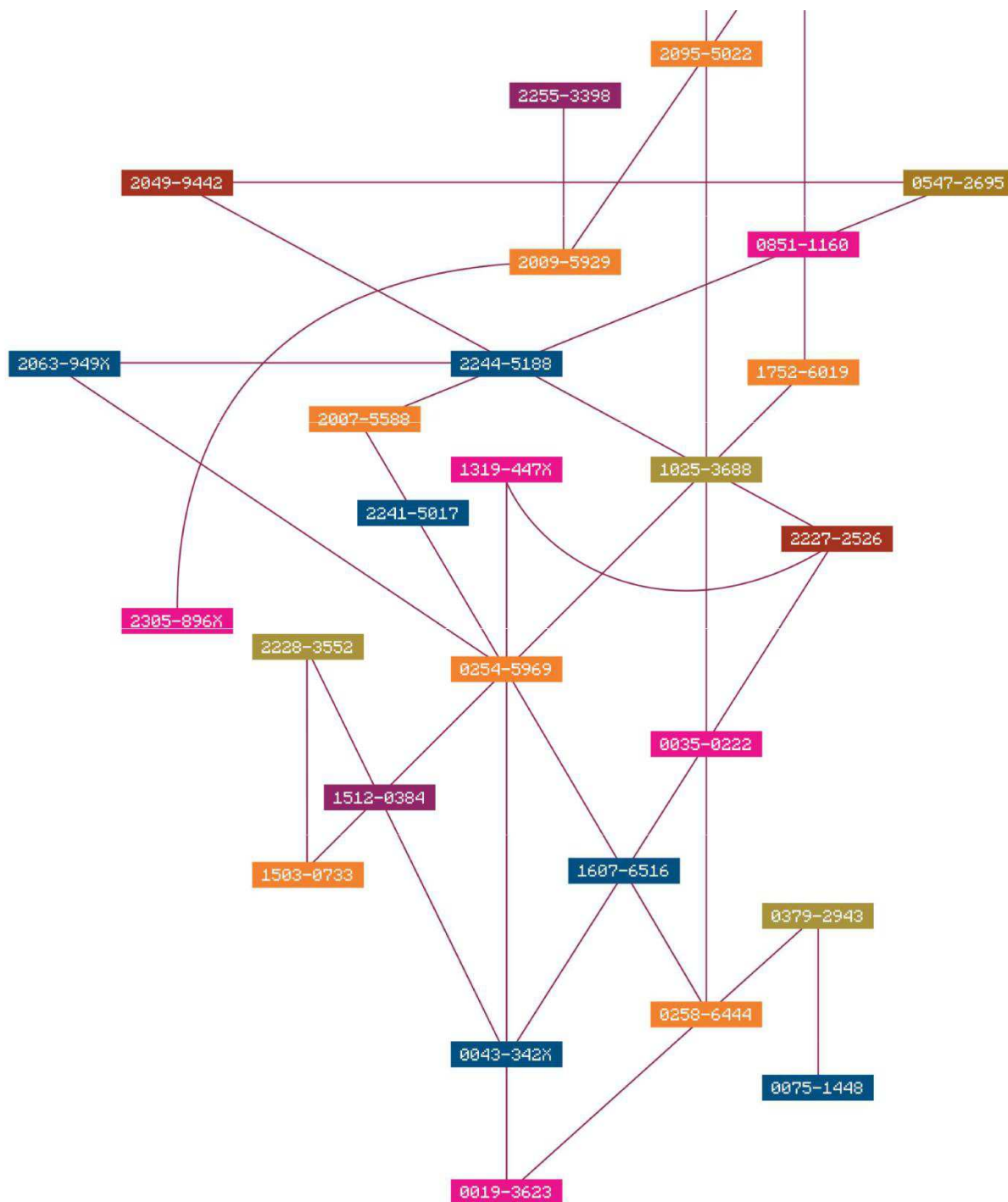


ISSN INTERNATIONAL CENTRE ACTIVITY REPORT FOR 2018



INTERNATIONAL
STANDARD
SERIAL
NUMBER
INTERNATIONAL CENTRE

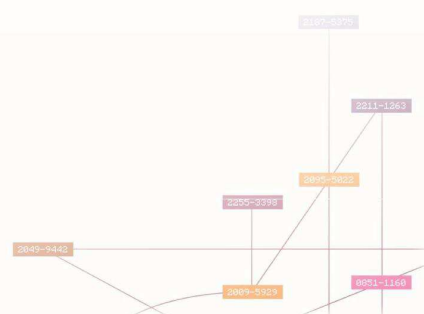


Introduction

The opening of the new ISSN portal in January 2018 is the result of a one-and-a-half year IT design and development project carried out in conjunction an IT contractor via agile software development. This structuring project for the ISSN International Centre (ISSN IC) is in line with the objective of partial opening of metadata specified in the 2015-2018 Strategy. It is indeed crucial that information relating to the ISSN, the key identifier for serial publications, be disseminated on the Internet to give it better visibility and encourage its reuse by publishers, librarians, content providers, abstracting and indexing services and other stakeholders. This is also a major step in the upgrading of ISSN IC services that should be pursued in the coming years. Thanks to the portal, new partnerships can be explored with complementary services in the field of information management.

This important evolution of the ISSN International Centre's service offer has been supported by the ISSN IC team who organized several training sessions for ISSN National Centres in 2018. In addition, these new services were presented at various professional events throughout 2018 and the feedback from professionals was very positive. ISSN IC customers renewed their subscriptions in 2018 and publishers located in countries without any ISSN National Centre started registering on the Publishers' Extranet to request ISSN assignments. ISSN National Centres were accustomed to the former ISSN portal based on VTLS Virtua software implemented in 2004 but in 2018, they became more familiar with the new portal and started using it as part of their daily metadata creation routine.

Members of the ISSN network participated in the various meetings organized in 2018, thus proving the dynamism of cooperation within the network. International standardization was another important topic in 2018 with the continued revision of the ISO 3297 standard and cooperation with RSC/RDA on the issue of bibliographic processing of serial publications.





1. The ISSN Network

1.1 Coverage and extension of the ISSN Network

In 2018, the ISSN Network comprised 90 member states. Discussions about new accessions took place with representatives from Botswana, Kenya, Mongolia, and Ukraine. Unfortunately, preliminary discussions held with Austria and Kazakhstan have not yielded any positive results so far.

The review and update of all working agreements between the ISSN International Centre and the organisations hosting the ISSN National Centres started in 2017. A new template working agreement was approved by a vote of Member states during the 2018 General Assembly Meeting. About thirty working agreements were signed in 2018 with Latin American and European countries. In 2019, negotiations will start with African, Arab, Asian and Oceanian member states.

1.2 Activities of the ISSN Network

1.2.1 Governance bodies

The 22nd meeting of the ISSN General Assembly was held in Paris on 26 and 27 April 2018 at the Ecole nationale d'administration, located at 2, avenue de l'Observatoire, 75005 Paris, whose auditorium was rent for this purpose. On the first day, an international conference entitled "An International Perspective on Open Access in Scholarly Communication: Achievements and Challenges" was organised by the ISSN International Centre. The conference was a great success with good attendance and excellent presentations which were video-recorded and posted on CNRS-INP2P3 website where they are still available (<https://webcast.in2p3.fr/container/issn-conference-2018>). On April 27th, 2018, the General Assembly dealt with ISSN network matters.

During this meeting, Ms Louise Howlett, Serial Record Handling/ISSN Manager at the British Library (U.K.) was elected President of the Governing Board, and Ms Philippa Andreasson, Head of Section, Public Programs Department, User Services Section at the National Library of Sweden, was elected Vice-President of the Governing Board.

Ten representatives of member states sit at the Governing Board beside the representatives for France and UNESCO. Four meetings of the Governing Board were organised in 2018. The 74th meeting (distant) was held on January 22nd, 2018. The 75th meeting was held in Paris on 24-25 April 2018. The 76th meeting was summoned on April 27th, 2018 after the General Assembly Meeting in Paris. The 77th meeting (distant) convened on October 9th, 2018.

1.2.2 ISSN National Centres

The 43rd ISSN Directors' Meeting was kindly hosted by ISSN U.S.A. at the Library of Congress in Washington D.C. (18-21 September 2018). Attendance was good with 36 participants including 29 delegates from 23 National Centres, 4 representatives from ISSN U.S.A., 1 delegate from the Publication Office of the European Community (OPE), 2 representatives from the ISSN International Centre and the Director of the Panamanian National Library.

The Latin American ISSN Group / Red Regional Latinoamericana del ISSN held its second distant meeting on June 6th, 2018 with 10 network representatives attending. The agenda focused on the ISSN conference and the outcomes of the General Assembly Meeting. As from April 2018, two Latin American countries, i.e. Argentina and Brazil, are represented on the Governing Board.

As per a resolution of the ISSN International Centre Governing Board voted in April 2016, the ISSN Award Program ended in December 2016. It was replaced by a new programme which supports the organisation of face-to-face regional information and training sessions for existing ISSN Centres and potential new ISSN Centres. One participant per country receives a grant which covers travel and accommodation expenses. A first session was held in November 2016 at the Instituto Brasileiro de Informação em Ciência e Tecnologia in Brasilia (Brazil) with participants from Argentina, Brazil, Colombia, Cuba, Panama, and Peru. A second session was held in April 2017 at the National Library of Kazakhstan in Almaty with participants from Belarus,



Kazakhstan, Kyrgyzstan, Russia, Ukraine, and Uzbekistan. A third session was hosted by the Library of Malaysia in Kuala Lumpur in August 2018 prior to IFLA WLIC. 16 representatives from Asian ISSN centres (i.e. Indonesia, Malaysia, Nepal, Philippines, Singapore, Thailand, Vietnam) participated in this ISSN Regional Information session held on August 23rd & 24th, 2018.

In this period of change, it is of uttermost importance to communicate with ISSN National Centres about the current strategic objectives of the ISSN International Centre. Since 2014, the ISSN IC Director has had meetings with ISSN Colleagues from the following ISSN National Centres: Argentina, Brazil, Burkina Faso, Canada, China, Colombia, Croatia, France, Germany, Hungary, Ireland, Korea, Kyrgyzstan, Lesotho, Malaysia, Morocco, New Zealand, Nigeria, Russia, Spain, Sri Lanka, U.K., U.S.A., and Uzbekistan.

1.3 Progress made on Strategic Objectives 2015-2018

The first strategic goal of the ISSN International Centre is to **improve the operations of the ISSN Network** by supporting existing ISSN National Centers through communication, advising and training.

The foremost objective is to turn the ISSN Network into a more inclusive community by increasing cooperation and direct interactions between representatives of member states. Regional training and information sessions held in Brazil, Kazakhstan, and Malaysia have been instrumental in achieving this objective. This program will continue in 2019.

A decision was approved by the Governing Board in 2017 to award travel grants to Governors to participate in the face-to-face meeting held in Paris every year in April. The objective is to increase diversity and foster representatives from various member states to apply for governor positions. As a result, the new ISSN International Centre Governing Board which was elected in 2018 to serve for two years is more diverse. It comprises four representatives of European member states (Croatia, Germany, Sweden, United Kingdom), two representatives of Latin American member states (Argentina, Brazil), two representatives of African member states (Mauritius, Tunisia), two representatives of North American member states (Canada, U.S.A.).

Inclusiveness is also achieved by providing online information in the six official languages of the United Nations. The ISSN International Centre is an intergovernmental organization and, as such, shall disseminate information about its activities to as many interested parties as possible around the globe. The official website of the ISSN International Centre is already available in six languages. The interface of the new ISSN portal and extranet has been translated into French and Spanish. Arabic, Chinese and Russian portal interfaces will be implemented in 2019.

In 2018, the implementation of the ISSN Portal and of the Electronic Transfer Alerting Service (ETAS) web site triggered the organization of several training sessions in various languages for ISSN National Centres, ISSN users and publishers. Presentations were recorded and made available on the ISSN community extranet. A few were also published on Slideshare.

Another goal of the ISSN International Centre is to **enhance its data, products and services** and consequently better promote the ISSN brand. Quality of ISSN data is a key element to increase future usage on the new portal and the corporate extranet, attract new customers and set up partnerships with database vendors, aggregators and other information providers. The ISSN International Centre has been working with several ISSN National Centres to jointly amend incorrect records which were not visible in the ISSN Register, notably with ISSN Algeria, IDICT Cuba, ISSN Egypt, ISSN Mexico, ISSN Morocco, ISSN Nigeria, ISSN Turkey, and ISSN Venezuela.

The adherence to international standards promoted notably by ISO, IFLA, RSC/RDA and the contribution to the development of these standards are crucial for the ISSN International Centre and the ISSN Network which are acknowledged as centers of expertise for the identification and description of serials and continuing resources. The revision of the ISSN standard within the ISO TC46/SC9/WG5 started in September 2017. A working group comprising more than 20 experts from ISSN National Centers, academic and research bodies and the publishing industry, has held monthly meetings to discuss improvements to the ISSN standard. A draft international standard was circulated by ISO for ballot early 2019 and the vote was positive and many comments were made that will be addressed by the working group. The ISSN



International Centre signed its new Registration Authority Agreement with ISO in September 2018 which will allow for a quick publication of the ISSN standard when it is approved. Another significant achievement was the contribution provided by the ISSN Network to the revision of RDA and the participation of the Director of ISSN U.S.A., and the Head of ISSN IC Data, Network and Standards department in the RSC Aggregates Working Group.

The third goal of our current strategy is to **enhance the ISSN International Centre's IT infrastructure**. In 2018, the ISSN International Centre implemented a mirror portal on its own servers. The Information Systems Department worked with a French consultancy company to draft a call for tenders for the new ISSN + system. The ISSN IC issued on December 21st, 2018 a "Request for Information" concerning the development of the new ISSN production tool.

Setting up new Partnerships is the fourth goal mentioned in the current ISSN International Centre's strategy. In 2018, the partnership with DOAJ was renewed and the cooperation with ProQuest stalled because of staff changes and technical issues on their side. It should resume in 2019. Internet Archive shared with the ISSN International Centre a report regarding the effectiveness of URLs in ROAD records. The ISSN International Centre plans to amend ROAD metadata by adding in a local field a set of links to the web pages where the publication is made available on the basis of the information provided by Internet Archive. Last but not least, the ISSN International Centre, with the support of NISO Transfer Group, started hosting the new ETAS service (<https://journaltransfer.issn.org>) as from September 2018. This cooperation will continue in 2019 with regular meetings and a project to standardize Transfer publishers' denominations.

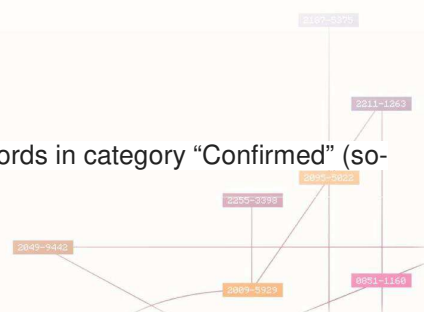
Improving ISSN International Centre's governance and awareness is the fifth strategic objective. The Governors are regularly updated on ISSN IC activities through interim reports and the annual report with its new layout is published online every year and sent to ISSN National Centres and their host institutions. The 2018 international marketing campaign was instrumental in the promotion of the new ISSN services with presentations delivered at UKSG in Glasgow, U.K., ALA Annual Conference in New Orleans, U.S.A, IFLA WLIC in Kuala Lumpur, Malaysia, Charleston Library Conference, U.S.A, Frankfurt Book Fair, Germany. Several advertisements were published in professional journals to raise awareness on the new ISSN portal. The ISSN IC Director delivered presentations in French and English about predatory publishing and document identification at the European Interdisciplinary Seminar organized by Lille University, France in March and November 2018. In September 2018, the ISSN IC Director was invited by the Ibero-American Institute – Prussian Cultural Heritage Foundation in Berlin, Germany to participate with the Director of Latindex in a Spanish-language round-table discussion entitled *La revista electrónica desde una perspectiva transregional*.

The sixth goal of the current strategy is **to share ISSN data with a wider community** while reconciling Open Access and Linked Data principles with financial revenues drawn from products and services. ISSN IC governing bodies decided in 2016 to have the ISSN International Centre expose part of ISSN data as linked open data, implement a Customer Relationship Management tool and a new ISSN portal and develop packages of enhanced services using ISSN data. In January 2018, a first version of the new portal and extranet was released. The production servers hosted by Gandi (one for Drupal/API/Piwik, one for ElasticSearch, one for the triplestore Apache Jena) started operating although functionalities such as user profiles and carts, CSV export, index browsing and responsive design were not yet implemented. These functionalities and a few more were released later in 2018.

2. Activities of the ISSN International Centre

2.1. The development of the ISSN International Register

At the end of 2018, the ISSN International Register contained **2,063,390** records in category "Confirmed" (so-called "Register" records in Virtua).





58,497 new records were added to the ISSN Register in 2018, a 5% decrease compared to 2017 figures of 61,670 new records but in line with 2016 figures of 58,696 new records.

Furthermore, ISSN assignments to digital resources continued to grow. **22,098** new online resources were identified in 2018: compared to 2017, the figure is stable. It stands for almost 38% of the total of ISSN assignments. Globally, **247,225** online resources in the ISSN Register as of January 2019.

36 ISSN National Centres used the production system provided by the ISSN IC in 2018, thus updating the ISSN Register on a daily basis.

The number of files received from ISSN National Centres and ingested into the ISSN Register increased in 2018: 1,085 files were provided by 58 centres; they contained a total of 213,807 records (against 1,011 files provided by 49 centres and containing a total of 197,563 records in 2017; and 870 files and 170,482 records in 2016). The bibliographic records are either new or modified records. These files are loaded on a daily basis. This increase is the result of a more careful monitoring of ISSN National Centres with a view to get fresher metadata at a quicker pace (see Annex 1 for details).

2.2. Data, Network and Standards Department

2.2.1. ISSN Assignment

The assignment activity of the department continued to be very active, with a total number of 3,150 new ISSN assigned (including 2,957 Confirmed or “Register” records and 193 Provisional or “Work” records). These figures are inferior to those from 2017 and 2016 (respectively 3,920 and 4,036 new records).

The figures below do not include the modification of existing records.

Table 1: Number of ISSN assigned by the ISSN International Centre in 2016, 2017 and 2018, sorted by status and medium

	Confirmed records				Provisional records				Total
	Print	Online	Other*	Total confirmed records	Print	Online	Other*	Total provisional records	
2016	2,111	1,306	35	3,452	433	143	8	584	4,036
2017	2,139	1,424	26	3,589	254	73	4	331	3,920
2018	1,917	1,019	21	2,957	142	46	5	193	3,150

*Any other type of media: CD, DVD, USB sticks, etc...

The number of provisional records diminished drastically compared with 2016. This is the result of follow-up actions with publishers, which were undertaken in 2017 and further automated in 2018, leading to a higher rate of validation for provisional ISSNs.

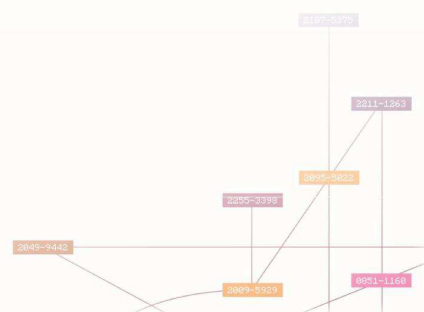




Table 2: Number of ISSN assigned by the ISSN International Centre in 2018, sorted by countries (over 100 ISSN / year), register + work records

COUNTRY	Number of records
	2018
Cuba	504
Ukraine	468
Hong Kong, SAR	424
International	308
Pakistan	162
Taiwan, POC	106
Bangladesh	105
Peru	105
Austria	104
United Arab Emirates	89
South Africa	83

Additional statistics about the activity of the ISSN National Centres can be found on the [ISSN website](#)

The number of records created for Cuban publications is especially high in 2018 based on a specific data quality project led by the ISSN International Centre in cooperation with the Cuban Instituto de Información Científica y Tecnológica (IDICT).

2.2.2. Relationships with publishers

On January 4th, 2018, the Publishers Extranet was launched. After a few days of use, the service improved and since then has been running well. No major technical issue has been encountered so far.

A total number of 3,464 requests were received, out of which 2,953 were fully processed (“processed” and “provisional” statuses). Other requests may have been rejected or are still awaiting completion (status: “pending”, “in-process”, “incomplete”).

As of January 11th, 2019, **1,557** publishers were registered on the Extranet, from 90 different countries.

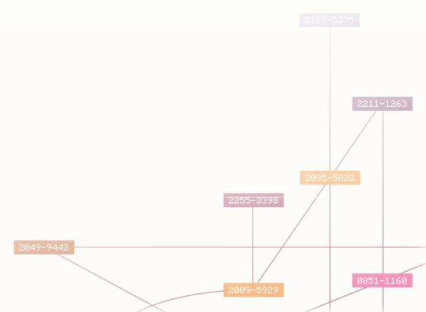
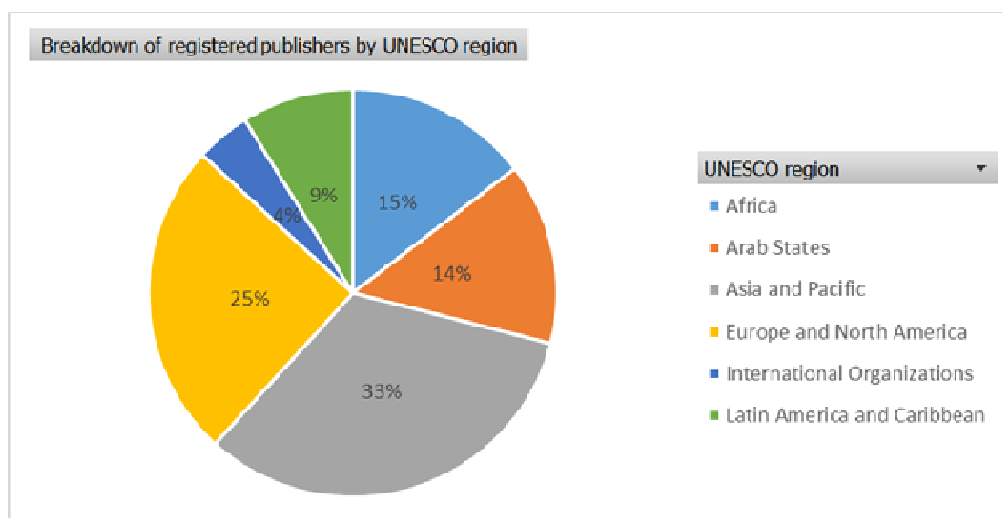




Fig. 1: Breakdown of registered publishers per UNESCO region



A complete set of guidelines was produced in order to answer questions from publishers.

An extensive documentation was made available on the Extranet FAQ (<https://portal.issn.org/node/82>).

Three Guidelines were drafted on the following topics:

How to register to the Extranet and how to request an ISSN assignment?

What are the conditions for ISSN assignment?

How to use the different services of the Extranet?

These guidelines are available in English, French, Spanish and Russian; the first guideline is also available in Arabic and Chinese.

Publishers not registered in the Extranet may use the contact web form at <https://portal.issn.org/node/32> to request information from the ISSN IC.

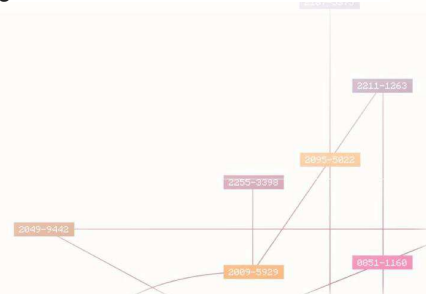
After experiments in 2016, a semi-automated workflow has been up and running since January 2017. This process is designed to assign ISSN to Springer Nature pre-publications, by ingesting the metadata provided by the publisher. The new workflow has worked without major troubles.

1,399 ISSN records were assigned through this process from January 1st, 2017 to November 15th, 2018.

The outcomes of this project were discussed at the 2018 Directors Meeting, and a report on this pilot project was submitted to ISSN Governors in January 2019. Continuing in 2019, ISSN Germany and the ISSN International Centre will consider various options to improve the confirmation of Springer-Nature provisional records.

Implementation of the new Enhanced Transfer Alerting Service

Further to the implementation by the ISSN International Centre of the new workflow for ETAS, two webinars for Transfer publishers were organised in September 2018 with an average attendance of 15. The slides have been made available on the ISSN IC Slideshare account.





2.2.3. Relationships with ISSN National Centres

Provision of bibliographic expertise

The flow of requests and questions from the National Centres using the bibquestions@issn.org inbox remains steady. A total of around 3,500 emails were exchanged with National centres in 2018.

Training sessions

The training of ISSN National Centres was strengthened in 2018.

The functionalities of the new ISSN portal were presented in English and in Spanish. These sessions were attended globally by about 15 National Centres.

Four training sessions in Spanish were set up for ISSN Panama to provide them with a complete overview of ISSN rules in order to launch their cooperation within the ISSN Network. A complete training session on the production system was also set up for Panama and Uruguay. As a result, the Panamanian ISSN Centre is now autonomous, and a fruitful cooperation has been established.

A tailor-made, complete training program in English was delivered to ISSN Gambia. A supplementary session was performed for the Indonesian Centre, as a complement to the sessions provided in 2017. As a result, a real improvement in the quality of Indonesian records has been noted.

A webinar on ROAD and the specificities of online resources was delivered in English for new members of staff of ISSN Indonesia, and in Spanish for ISSN Uruguay.

Seven series of training sessions were conducted as webinars in 2018. All these webinars have been recorded and are available to the ISSN Network on the ISSN Community Extranet, together with their slide presentations.

2.2.4. Standardization activities

ISSN Review Group (ISSN RG)

The ISSN Review Group met twice in 2018:

The day before the General Assembly meeting in Paris (April 23rd - 24th), The day before the Directors Meeting in Washington (September 17th).

Among many different topics, the ISSN RG has been working on:

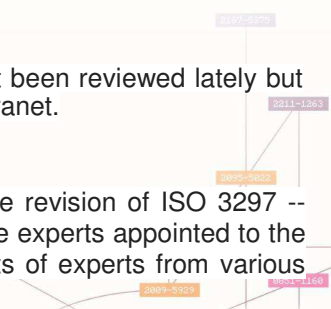
- the harmonization between RDA, ISBD and ISSN and the final report of the Serials Task Force (see below, section "RDA");
- the relationships between ISSN National Centres and multinational publishers (notably through an examination of the outcomes of the Springer-Nature project);
- the use of the Electronic Transfer Alerting Service (ETAS) by ISSN National Centres (see the dedicated section);
- the policy related to the addition of classifications in ISSN records;
- several other bibliographic issues, either during the meetings or by email (please refer to the ISSN RG meeting minutes for more details).

ISSN Manual

The ISSN Manual is available in English, French, Spanish and Russian. It has not been reviewed lately but Supplementary guidelines have been regularly posted on the ISSN Community extranet.

Activities in the framework of the International Standard Organization

Since September 2017, the ISSN International Centre has been involved with the revision of ISO 3297 -- International Standard Serial Number and has organized monthly meetings with the experts appointed to the working group in charge of the revision (ISO TC46/SC9/WG5). The latter consists of experts from various





sectors including representatives from ISSN National Centres. In December 2017, an opinion survey based on a questionnaire developed by these experts was circulated so as to get feedback from users on a series of proposals.

The ISSN IC Director chaired the 2018 ISO TC46 Plenary meeting which was held in Lisbon, Portugal (May 14-18, 2018) at the kind invitation of Instituto Português da Qualidade and National Library of Portugal. A meeting of ISO TC46/SC9/WG5 took place during this event and in October 2018, the working group eventually agreed on a draft document which was submitted to ISO Central Secretariat. The latter launched a Draft International Standard ballot in January 2019. The working group will address the comments received and submit a Final Draft International Standard to a second ballot in the course of 2019. Meanwhile, negotiations between ISSN IC and ISO led to the signature of two Registration Authority Agreements stating that the management and the implementation of ISO 4 and ISO 3297 were entrusted to the ISSN International Centre.

ISSN IC staff and representatives of the ISSN Network are members of the working group on the revision of ISO 8, Presentation of periodicals. This standard, intended to explain how to present and display identification elements on a periodical (e.g. title, ISSN, enumeration...) had not been revised since 1977 and needed to take into account digital publishing. A Draft International Standard (DIS) was produced and distributed for ballot from May to July 2018, with a positive outcome. The group addressed the comments and submitted the FDIS (Final Draft International Standard) to ballot starting December 2018. The FDIS was eventually approved in February 2019 and the standard was published in English and French.

International Federation of Library Associations (IFLA)

At IFLA, the ISSN International Centre is represented in various sections and working groups:

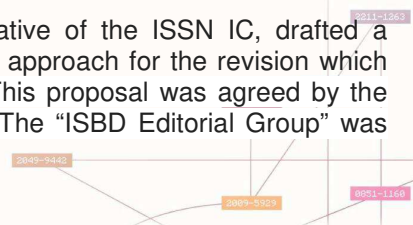
- the Serials and Other Continuing Resources Section (SOCRS),
- the Standing Committee of the Cataloguing section,
- the ISBD Review Group,
- the Permanent Unimarc Committee,
- the Bibliographic Conceptual Models Review Group,
- the ISBD Review Group,
- the PRESSoo Review Group.

The ISSN International Centre is involved with IFLA SOCRS whose professional scope has been expanded to include scholarly communication and whose geographical coverage has been extended in 2018 with librarians from Brazil, Canada, Denmark, France, Iran, Mexico, Nigeria, U.S.A. being elected. The SOCRS 2018 Open Program on Scholarly Communication was well received and concluded with a good discussion on Open Access. Papers resulting from the presentations were deposited in the IFLA Library. SOCRS Standing members along with the Science and Technology Libraries Section created a successful joint program on Open Access. In 2019, the Open Session will focus on standards and good practices for serial management.

PRESSoo is an extension of FRBRoo (the “object-oriented”, i.e. linked-data oriented, version of FRBR). As a “formal ontology intended to capture and represent the underlying semantics of bibliographic information about continuing resources”, it is intended to help institutions publishing the description of continuing resources in the linked data. This model was thoroughly used by the RDA “Serials task force” (see below) to update the RDA instructions related to serials.

The IFLA Library Reference Model (IFLA-LRM, <https://www.ifla.org/publications/node/11412>), was published and officially endorsed by IFLA in 2017. It replaced the FRBR model. This was an important event as the two main cataloguing standards (ISBD and RDA) are supposed to be aligned with the LRM.

In 2018, a dedicated sub-group of the ISBD RG, including a representative of the ISSN IC, drafted a proposal for the revision of the ISBD. This document proposed a two-step approach for the revision which should take at least two years plus an optional step of two more years. This proposal was agreed by the IFLA Committee on Standards during the IFLA 2018 annual conference. The “ISBD Editorial Group” was





launched in 2018 and held its first meeting in Paris in November 2018 with two staff members of the ISSN International Centre attending.

RDA

In June 2015, the ISSN International Centre signed an agreement with the RDA Steering Committee (RSC) in order to “support the maintenance and development of functional interoperability between data created using the RDA and ISSN instructions and element sets”.

As part of this agreement, and in order to study the impact of the publication of IFLA LRM, the Chair of RDA Steering Committee and the ISSN IC issued a discussion paper summarizing common views about the modelling of serials and other continuing resources. It was published on RSC website in June 2018 (<http://www.rda-rsc.org/sites/all/files/RSC-Chair-20.pdf>).

Within the RSC, these questions are under the responsibility of the Aggregates Working Group (AWG), as serials are aggregates in IFLA-LRM terms. In 2018, the AWG set up an ad-hoc group called the “Serials Task Force” to investigate further the bibliographic processing of this kind of resource. The Serials Task Force consisted of experts from the ISSN Network, from CONSER, and from the RSC. This Serials Task Force issued recommendations which were influential in shaping the new version of the RDA toolkit, that launched as a beta version in June 2018.

For more information, please refer to the presentations about serials at the new RDA toolkit event held during the 2018 annual conference of the American Library Association (<http://www.rda-rsc.org/node/560>). The report of the Serials Task Force was presented at 2018 IFLA WLIC (<http://library.ifla.org/2235/>).

Other standardization activities

The ISSN International Centre is a member of EDItEUR, the UK-based organization in charge of developing and maintaining standards for the publishing industry, such as ONIX for serials.

2.2.5. Quality Plan for ISSN Data

In 2017, the Data, Network and Standards Department defined how the Quality Plan would be implemented according to the objectives, the context and the resources available at the ISSN International Centre and within the ISSN Network. On a theoretical side, the Quality Plan identified the various domains where quality should be improved: quality of the bibliographic data (i.e. the ISSN records themselves), quality of the ISSN coverage (are most continuing resources identified by an ISSN?), quality of the processes and workflows (within the Network and with users of ISSN services).

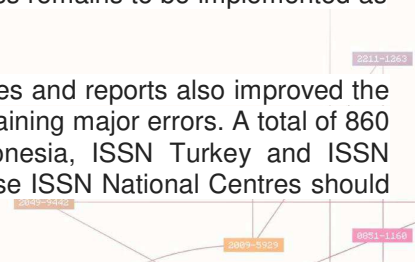
Within these three domains, several criteria have been defined with their associated indicators. On a more practical side, the Quality Plan helps identifying, prioritizing, and assessing the outcomes of quality projects. In 2017, the focus was set on the alignment of key metadata elements (places of publication and subject classification) with authoritative linked data providers.

Pursuant to this project, the 2018 objective was to improve the richness of bibliographic data through links with other identifiers and authoritative linked data providers.

The alignment with external data contractors was improved, to obtain a refined geolocation and classification. A process was set up to add automatically a subject classification and a geolocation to new ISSN records in the Portal.

In 2018, International Standard Name identifiers (ISNI) were added semi-manually to ISSN records, thanks to the ISSN International Centre membership with ISNI International Agency. The display and the use of ISNIs (through bounces) in the Portal has been improved. Specifically, ISNIs have been ingested in the new Spanish ISSN records since March 2018. A retrospective enrichment process remains to be implemented as a test.

Checking the structural validity of ISSN records thanks to automated routines and reports also improved the quality of ISSN bibliographic data. The goal is to sort out ISSN records containing major errors. A total of 860 ISSN records describing online resources and produced by ISSN Indonesia, ISSN Turkey and ISSN Venezuela were corrected by the Data, Network and Standards team. These ISSN National Centres should





correct records describing the corresponding print resources, with some guidance from the Data, Network and Standards team.

In order to improve the ISSN coverage, several mini-projects have been implemented to switch provisional ISSNs to the Confirmed status. The priority was given to resources published by International organizations and 187 ISSN records were eventually validated.

Specific operations were performed in order to improve the identification of unreported ISSN, and correct outdated data. In cooperation with IDICT (Instituto de Información Científica y Tecnológica, Cuba), 500 unreported ISSN assigned in the 1970's were matched with a key title, updated and corrected in the Register. Moreover, 63 ISSN records corresponding to ceased titles were updated.

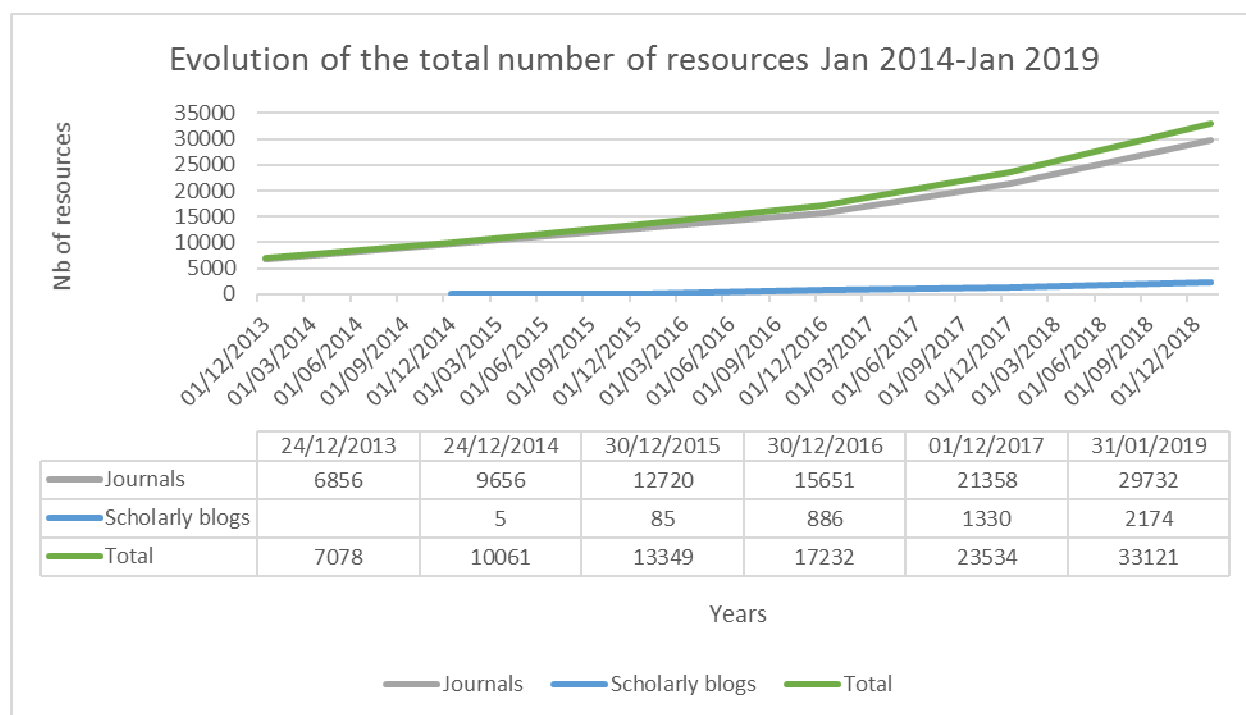
The Data Network and Standards team is sometimes requested by publishers or data producers to assess the quality and update batches of ISSN records that contain inconsistencies (mainly missing ISSNs, invalid ISSNs, open access status). This has a double impact: the ISSN Register is updated, and so are the external databases. Upon a request from Elsevier, 460 ISSN records were corrected, missing e-ISSN were also assigned with the cooperation of a few ISSN centres. As a result, 520 journal titles published by Elsevier are now correctly referenced in ROAD.

2.2.6. The development of ROAD in 2018

In June 2018, ROAD web site was embedded into the ISSN Portal and ceased to be a stand-alone web site. Thus it now benefits from a better technical maintenance, a regular ingestion workflow and an enhanced metadata enrichment process adapted to the new ISSN Portal infrastructure.

9,000 new ISSN records describing Open Access (OA) resources were added to ROAD in 2018. The number of scholarly open access publications in the ISSN Register has increased fivefold since the ROAD website launched in December 2013.

Fig. 2 – Evolution of the number of resources





Among the five types of resources referenced in ROAD, journals are still the most numerous. The breakdown by types of publications shows a growing trend for scholarly blogs.

Fig. 3 – Types of publications breakdown

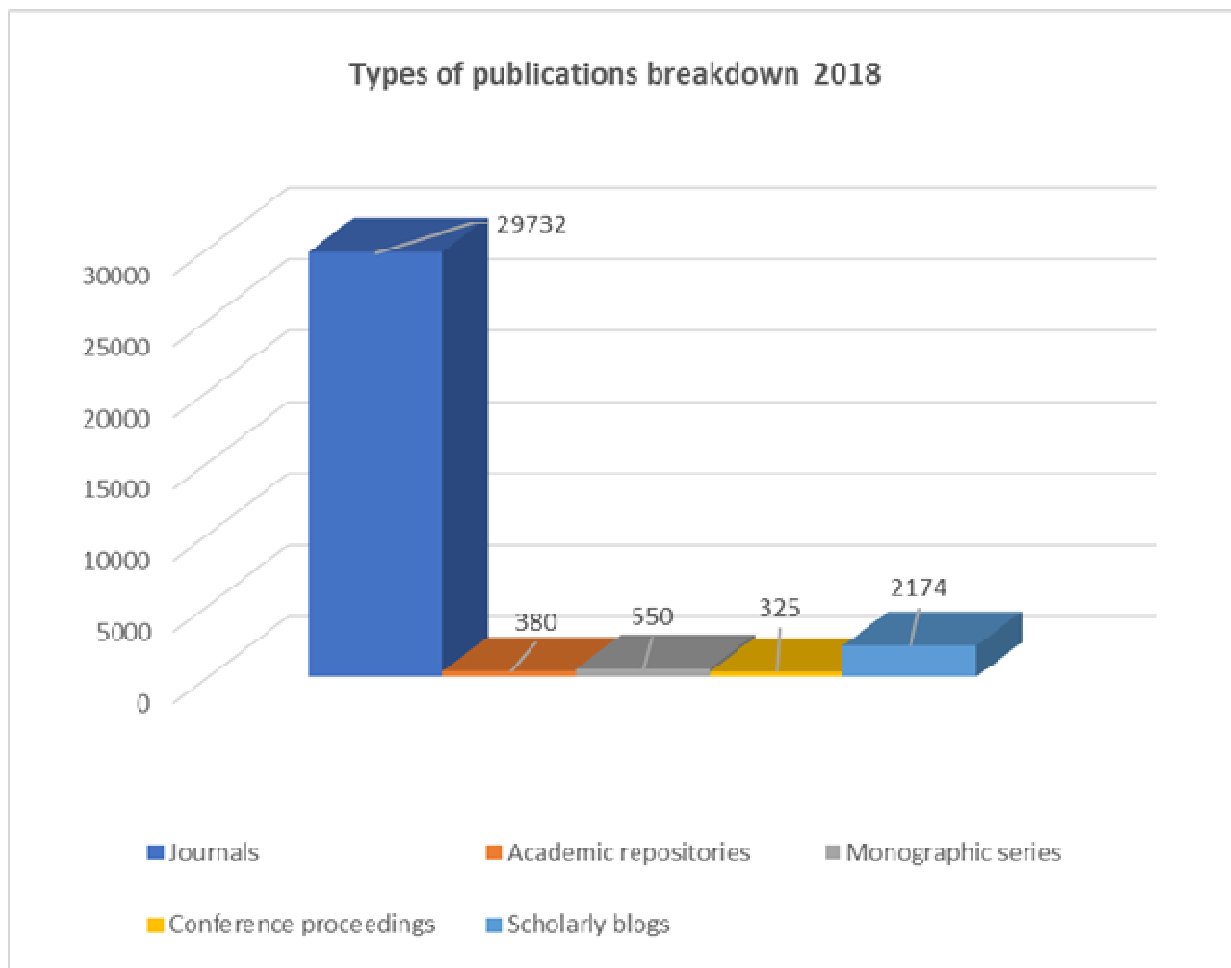
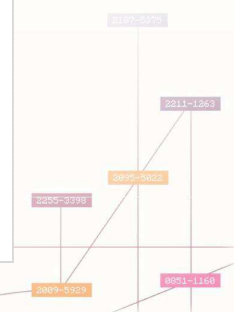
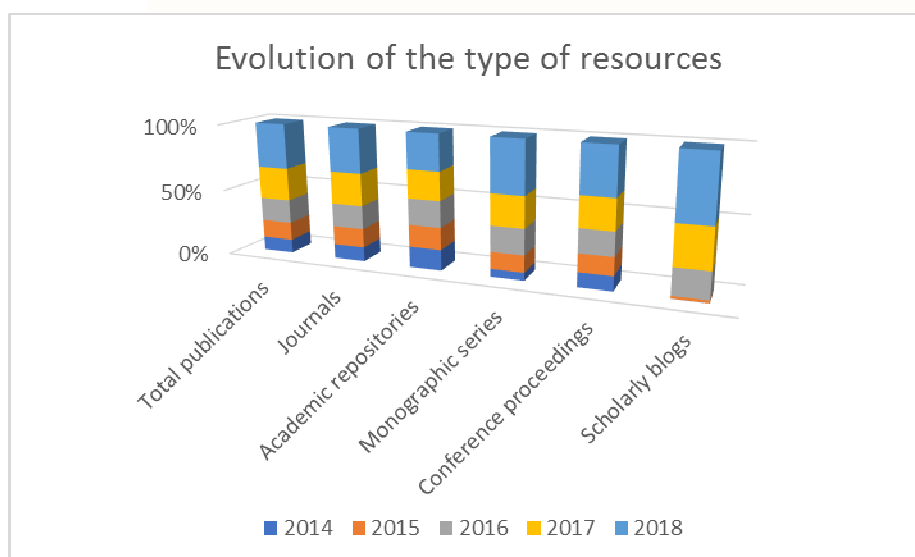


Fig. 4 - Evolution of the type of resources





The top 10 contributing countries are the same as in 2017, with a slightly different breakdown in favor of Indonesia, France and India that represent one third of the total OA publications.

Table 2 - Top 10 participating countries (ISSN National Centres)

Indonesia	4,920
France	2,912
India	2,410
Turkey	1,749
United Kingdom	1,666
United States	1,655
Iran	1,456
Brazil	1,286
Poland	1,219
Spain	926

Thanks to a partnership with the French database *Où Publier ?* (Where to publish?), managed by CIRAD (Centre for International Cooperation in Agronomic Research for Development, France), 700 records have been assessed and corrected, as part of a Data Quality project. Almost 600 new resources indexed by CIRAD have been integrated into ROAD.

Open access resources only represent 1,6% of the total ISSN records, and 13% of online publications described in the ISSN Register. As a matter of fact, numerous online continuous resources remain unidentified by an ISSN, notably in Africa, the Arab States, and in Latin America. This lack of identification for online resources can be observed as well on regional open access platforms like AJOL for the African continent, and Scielo and Latindex for Latin America.

2.3. Sales, Marketing and Communication Department (SMC)

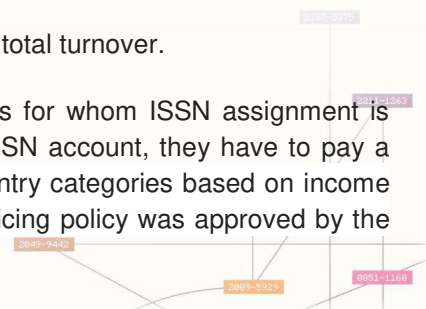
In 2018, SMC department actions focused mainly on implementing the new ISSN extranet, responding to user enquiries, and promoting the new ISSN portal

2.3.1. Sales

The 2018 turnover increased by 11.6% compared to 2017. The revenues from ISSN subscriptions were rather stable with an increase of 1,14% whereas 10,4% of this year-on-year increase can be contributed to a new source of revenue from charging for ISSN assignment.

The most popular services are still the subscriptions to the full ISSN Portal (51,60%) and the ISSN Data File (29,64%). The distribution of the turnover slightly changed in 2018:

- The ISSN Portal turnover increased significantly due to customer renewals and ISSN Portal pricing policy adjustments.
- The ISSN Data File turnover decreased compared with 2017 figures. A public administrative agency decided to unsubscribe to the ISSN Data File in 2018. As a result, there was a substantial loss in revenue.
- In 2018, OAI-PMH turnover increased and represented 7,08 % of the total turnover.
- In January 2018, the SMC Department started to invoice publishers for whom ISSN assignment is managed by the ISSN International Centre. When publishers create an ISSN account, they have to pay a registration fee including one ISSN credit. The pricing fee depends on country categories based on income per capita as per the statistics issued annually by the World Bank. This pricing policy was approved by the ISSN Governing Board in July 2017.





- Some customers continue to use the ISSN Premium service. However, ISSN Premium only accounts for 1,02 % of the total turnover.

The SMC Department also promotes the APIs which have been implemented on the ISSN Portal and is in contact with several sales leads who are testing this service.

2.3.2. Contributions from Member States

In 2018, the actual contributions represented **96 %** of the total amount called up. The ISSN International Centre recovered overdue contributions (Bahrain, Burkina Faso, Benin, Luxemburg, Nigeria, Saudi Arabia). 2018 recovery rate was thus higher than the one achieved in 2017 (95%).

2.3.3. Communication and marketing activities

In 2018, the SMC Department was very active in promoting ISSN services at various professional exhibitions.

Professional events

In 2018, the SMC Department sent representatives to the following professional events:

- UKSG (April 2018, Glasgow): The ISSN IC rented a booth during this event and gave presentations of the ISSN Portal on the booth.
- ALA (June 2018, New Orleans, USA): The ISSN IC participated for the first time in this event which attracted more than 18,000 attendees and 900 exhibiting organizations. The ISSN IC held a booth for 3 days. A presentation about the new ISSN Portal and TRANSFER service was delivered at this event. This presentation is published on ALA slideshare: <https://fr.slideshare.net/ISSNIC40/issnala-2018-the-new-issn-portal-for-libraries-and-publishers>.
- IFLA (August 2018, Kuala Lumpur, Malaysia): The ISSN IC rented a booth, and a demo of the new services was presented at IFLA Expo Pavilion Lab (Aug. 26th, 2018);
- Frankfurt Book Fair (October 2018, Germany): The ISSN IC rented a table and had appointments with potential customers. A live demo of the new services was delivered at Frankfurt Book Fair (Oct. 10th, 2018) with approximately 10 people attending.

Communication

The new ISSN Portal went live in January 2018 and, consequently, the ISSN IC focused its communication on the new service by targeting professional publications and newsletters issued in various geographical areas.

The ISSN IC issued a press release translated in seven languages (English, French, Spanish, German, Japanese, Russian, Arabic) that was published in different media across the globe.

ISSN on Social Media

In March 2018, information in three languages (Arabic, Chinese, Russian) was issued on the ISSN institutional website in addition to the existing ones (English, French, Spanish). The ISSN IC website (www.issn.org) is updated weekly in the 6 languages with news about ISSN International Centre and ISSN National Centres.

The ISSN Facebook page (<https://fr-fr.facebook.com/ISSNInternationalCentre>) reached **2,244** likes and **2,293** followers in February 2019. The ISSN Facebook page is regularly updated with news, photos, and videos. Some followers comment on our publications and request information about ISSN IC events.

The Slideshare page (<https://www.slideshare.net/ISSNIC40>) is also regularly updated with ISSN IC and ISSN Network presentations. It also includes the ISSN IC Guide for TRANSFER publishers. There are currently **36** presentations on Slideshare, and 10 followers.





As of January 2019, ISSN_IC twitter account (https://twitter.com/issn_ic) had approximately 600 followers, an increase by 140 followers compared to 2017 figures. The interests of followers are focused on professional matters in ISSN IC domains of expertise, i.e. scholarly matters and information science and technology.

ISSN Newsletter

The ISSN Newsletter is edited by the Data, Network & Standards department and it contains a press review about the topics relevant to the ISSN community and partners. As of January 2019, there were 8,112 subscribers, with a steady monthly increase of 83 new subscribers.

2.4. Information Systems Department (IS)

The IS Department continued to provide its technical services to ISSN IC staff, the ISSN Network and external customers and partners such as monitoring the web sites and applications, and providing regular data exports. The IS Department also took in charge several "ISSN Premium" activities over the year to check and update external partners' ISSN/Title lists.

2.4.1. Technical support to the ISSN International Centre

The cooperation with the contractor in charge of the monitoring and management of the local computer system infrastructure at the ISSN IC, was focused on the following projects:

- Final migration to the new server of all "old" services hosted on the former server;
- Installation of auditing software in order to monitor on a daily basis the status of shared files and folders.

2.4.2. The new ISSN Portal / Extranet

The IS department cooperated closely with an IT contractor for the final developments and testing of the remaining modules of the system, i.e. API, and OAI-PMH.

IS staff were trained how to install the contractor-developed portal system on a new server. Thanks to this training, they succeeded in installing a test version of the software on a server located on the ISSN IC premises. This mirror version can be used for testing purposes. It was used for instance in January 2019 to extract some accounting and statistical data from a "frozen" version of the SQL database.

IS staff were further trained later so as to learn how to contribute to the Portal /extranet code managed by the IT contractor. The first test attempts at code enhancements and modifications will concern bibliographical data display and conversion in the Portal.

The processing of bibliographic records exported daily from the production system for indexing by the new ISSN Portal was enhanced several times, in particular for management of ROAD tagged records and in order to improve the automated processing of data files produced by external partners. A special routine for the removal of ending punctuation was also implemented in order to obtain a better browsing of indexes in the Portal.

Work has started on the setting up of the framework for a consistent Search Engine Optimization process for the ISSN Portal. It entails the regular production of sitemap files as well as the inclusion of basic structured data inside the web pages of ISSN records, so as to make them directly "readable" by search engines. This last aspect will require some external expertise as well as some code adaptations.

2.4.3. Taking over the management of ETAS / TRANSFER notifications

Following the agreement with the NISO Transfer group, the ISSN International Centre took over the practical management of the alerting system. This was implemented through two IT operations:

- Addition of a "transfer declaration form" in the ISSN Portal / extranet for registered "Transfer publishers" with a corresponding new workflow for the cataloguers of the ISSN IC and of the National Centres concerned;



-
- | Año | Número de empresas |
|------|--------------------|
| 2004 | 1442 |
| 2005 | 1523 |
| 2006 | 1639 |
| 2007 | 1802 |
| 2008 | 1963 |
| 2009 | 1168 |



3. Cooperation with third parties

3.1 EDINA: The Keepers' Registry

The Keepers' Registry is a well-known international service that provides academic and heritage organisations with information regarding the preservation status of digital continuing resources. ISSN identification metadata is used by the service to support preservation reports from the Keepers and process user searches (<https://thekeepers.org/>). Until August 2017, the service was included by Jisc in their core services to UK-based academic libraries. Following a consultation with UK and Irish members, Keepers Registry was designated as an optional service for 2017-2018 as there was insufficient demand for it to be in the core subscription. Jisc is now willing to stop the service as from July 31st, 2019. The future of the Keepers Registry will be agreed upon by the current stakeholders, i.e. ISSN IC, EDINA, and the Keepers' Agencies.

3.2 CIDEMIS System

CIDEMIS is the French acronym for the dematerialized workflow for ISSN requests (Circuit dématérialisé des Demandes ISSN). This system was developed by ABES (French Bibliographic Agency for Higher Education), the National Library of France and the ISSN International Centre. It was launched in June 2015 and further improved in 2016.

This tool is intended to streamline the process of ISSN assignment and facilitate reporting between SUDOC cataloguing staff, ISSN IC and ISSN national centres. The objective is to assign more ISSN to serial resources, complete or update ISSN records, and thus improve the quality and the coverage of the ISSN Register.

In 2018, 1,942 requests have been sent to National Centres through CIDEMIS (1,696 assignment and 246 correction requests). A total of 253 requests have been processed (221 assignment and 32 correction requests), i.e. a rate of 13%.

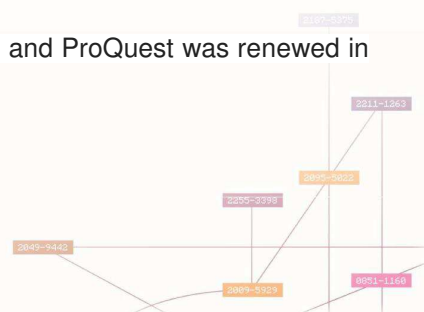
While these results may appear low, it happens that some requests are processed by ISSN National Centres but they do not report in Excel sheets. This is an issue that the ISSN International Centre wishes to solve with the support of ISSN National Centres.

On a more general note, this decrease in ISSN assignments requests through CIDEMIS marked 2018. This can be explained by an interruption in CIDEMIS workflow during several weeks in Autumn 2018. These problems were resolved in January 2019. Since January 2019, the system was technically up and running again, but a great number of requests dated 2018 need to be processed in 2019.

3.3 ProQuest: Enhancement of ISSN coverage in Ulrich's database

In 2017, the discussion with ProQuest-Ex Libris resumed after the 2017 Directors' Meeting during which ISSN UK and ISSN Netherlands made a presentation about their actions regarding the review of Ulrich's serials without ISSN. In January 2018, a meeting was scheduled with a representative from ProQuest and with colleagues from ISSN Netherlands, Sweden and UK. Excel files including the newly assigned ISSN have been sent to ProQuest for processing.

The Memorandum of Understanding between the ISSN International Centre and ProQuest was renewed in 2018.





Conclusion

2018 was a busy and productive year with big challenges and significant achievements such as the opening of the new ISSN portal, the hosting of the new Transfer service, the signature of the Registration Authority Agreement with ISO, and the evolution of ISSN IC sales policy regarding the ISSN Register and ISSN assignments.

To support these developments, ISSN IC organisational chart has recently been modified with the creation of a new position of Project Officer attached to ISSN IC Executive Office. The Data, Network and Standards department has been renamed Metadata and Technical Coordination of the ISSN Network.

The 2015-2018 strategy was approved by the ISSN IC Governing Board and the ISSN IC Member States. Although much has been accomplished, the project aiming at replacing Virtua by a full-web and up-to-date system is still before us with a provisional deadline set to April 2020.

Regarding the development of its 2020-2024 Strategy, the ISSN International Centre has just started working with a consultancy company on various options which will be discussed at the April 2019 Governing Board meeting and submitted to the General Assembly of Member States in April 2020.

