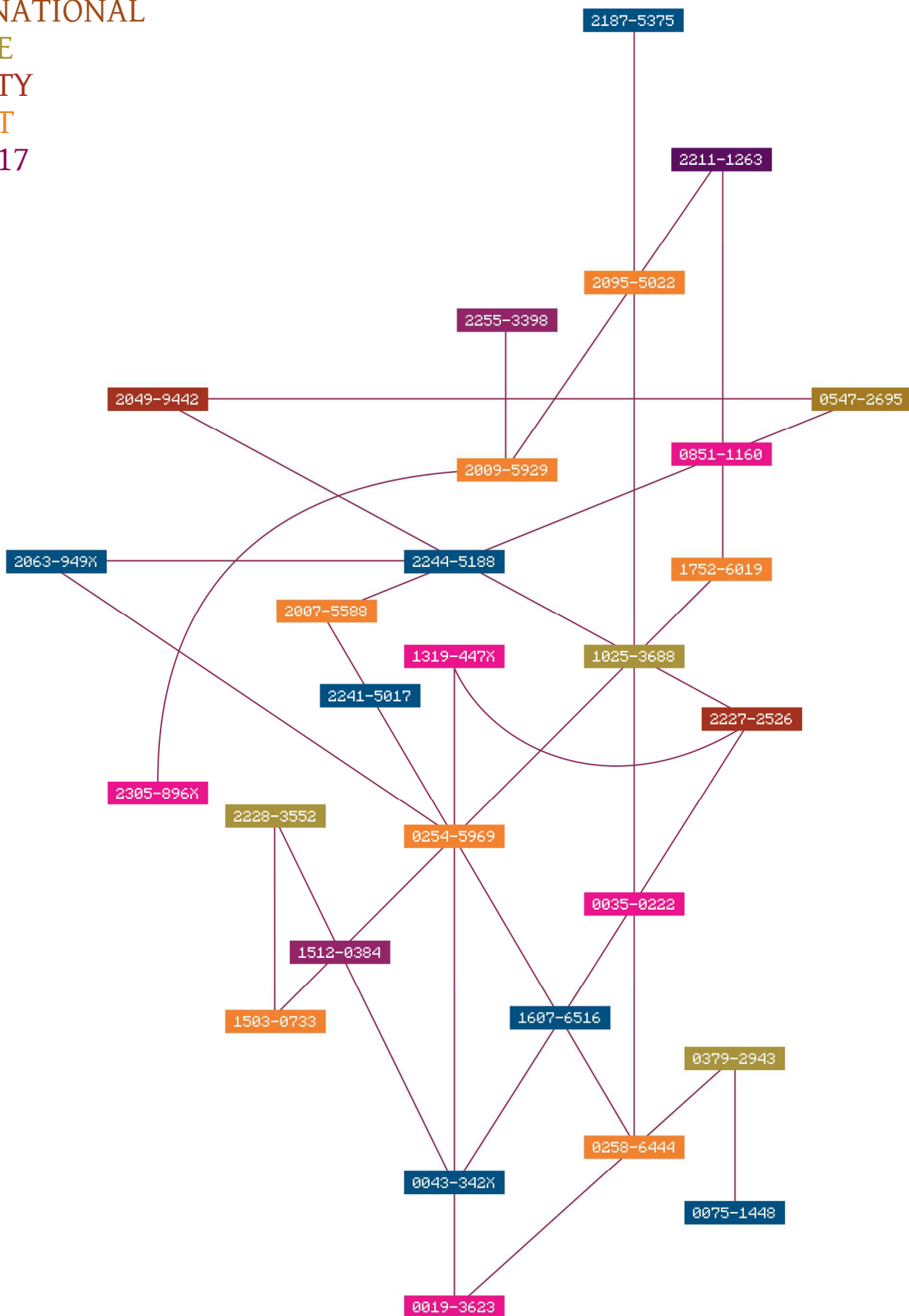
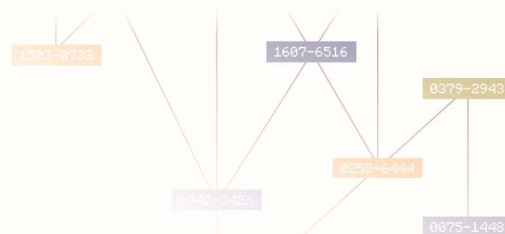


ISSN
INTERNATIONAL
CENTRE
ACTIVITY
REPORT
FOR 2017

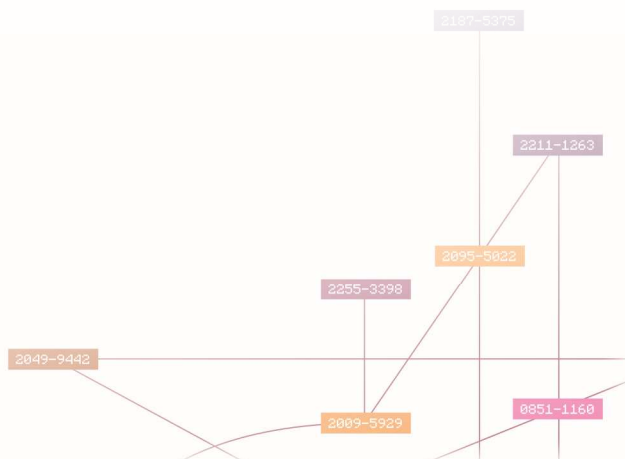


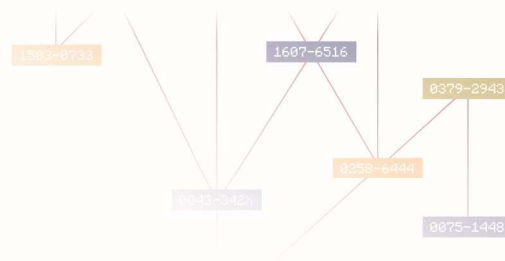


The first highlight of year 2017 was the project led by the ISSN International Centre to completely revamp the ISSN Portal and develop a new ISSN Extranet. Monthly meetings were organised between the contractor and the product owners at the ISSN International Centre who implemented agile methods to move the project forward. Presentations of the new tools were delivered at the Directors' Meeting (Nov. 8th, 2017) and to ISSN Governors (Dec. 5th, 2017). The first version of the new Portal and the new Extranet was launched on January 4th, 2018. A second version shall be released in July 2018. This is not the end of the project since the ISSN International Centre shall further develop these tools by adding new functionalities.

A second important project was the revision of ISO 3297 standard. In 2016, the ISSN International Centre took action towards NISO - secretariat to ISO TC46/SC9 - to launch a ballot about a minor revision to ISO 3297 standard (ISSN) in order to delete a paragraph dealing with fees. The international vote was positive and the fifth version of ISO 3297 standard was published by ISO in 2017. This fifth version is currently under revision and this process shall last about three years before the sixth version is published.

The 2017 Meeting of ISSN National Centre Directors (7 - 10 November 2017) took place in Rabat, Morocco at the kind invitation of the National Library of the Kingdom of Morocco. Attendance was good with 53 delegates attending either in-person or online. ISSN Directors had the opportunity to discover the new ISSN portal and extranet and to enjoy the hospitality of our Moroccan colleagues.





1. The ISSN Network

1.1. Coverage and extension of the ISSN Network

In 2017, the ISSN Network did not expand with 89 countries participating in the ISSN Network. However, in March 2018, Panama joined the ISSN Network. Discussions about new accessions took place with representatives from Austria, Belarus, Peru, and Ukraine.

The review and update of all working agreements between the ISSN International Centre and the organisations hosting the ISSN National Centres started in 2017. The new template working agreement was approved by a vote of Member Countries during the 2018 General Assembly. This approach was motivated by the renewal of the agreement between ISO and the ISSN International Centre. The content of this new agreement was completely reviewed by ISO and some of its provisions needed to be included in the new working agreement between the ISSN International Centre and ISSN National Centres.

1.2. Activities of the ISSN Network

1.2.1 Governance bodies

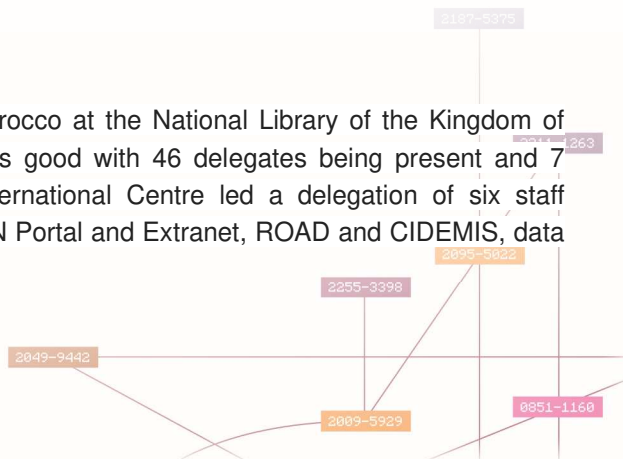
Ten representatives of Member Countries sit at the Governing Board beside the representatives for France and UNESCO. Three meetings of the Governing Board were organised in 2017. The 71st meeting (distant) was held on January 26th, 2017. The 72th meeting was held in Paris on 26-27 April 2017. The 73rd meeting (distant) was summoned on October 16th, 2017.

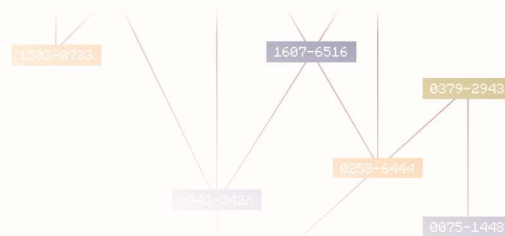
In 2017, Mr Karl Debus-López, Chief, U.S. Programs, Law, and Literature Division at the Library of Congress (U.S.A) was the Chair of the Governing Board. The Vice-Chair of the Governing Board was Ms Louise Howlett, Serial Record Handling/ISSN manager at the British Library (U.K.). Both were appointed in 2016 by the Governors during the Governing Board meeting which took place after the meeting of the General Assembly during which the new Governing Board was elected.

The election of the new Governing Board took place during the meeting of the General Assembly in April 2018. Ms Louise Howlett, Serial Record Handling/ISSN manager at the British Library (U.K.) was appointed Chair, and Mrs Philippa Andreasson, Head of User Services at the National Library of Sweden, was appointed Vice-Chair.

1.2.2 ISSN National Centres

The 42nd Directors' Meeting was kindly hosted by ISSN Morocco at the National Library of the Kingdom of Morocco in Rabat (7 - 10 November 2017). Attendance was good with 46 delegates being present and 7 participants attending online. The Director of the ISSN International Centre led a delegation of six staff members who notably gave presentations about the new ISSN Portal and Extranet, ROAD and CIDEMIS, data ingestion and data quality.





The Latin American ISSN Group / Red Regional Latinoamericana del ISSN held its first distant meeting on September 5th, 2017. The objectives of this Group are to foster cooperation between the ISSN Centres in the region, share good practices and develop professional skills. One group's appointed representative shall participate in annual international meetings held by the ISSN Network. In 2017, Brazil represented the group at the Directors' Meeting in Rabat, Morocco. This group should set up training sessions and commission a report about the current situation of ISSN Centres in the region in terms of services, funding, human resources and technical infrastructure. Two Latin American countries, Argentina and Brazil, have a seat 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 country representative 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 will be organised at the National Library of Malaysia in Kuala Lumpur in August 2018 prior to IFLA WLIC.

In this period of change, it is of uttermost importance to communicate with ISSN National Centres about the strategic objectives of the ISSN International Centre as voted by the Governing Board and the General Assembly and about the achievements and projects of the ISSN International Centre and the ISSN network. This is the reason why the ISSN International Centre's Director will schedule local meetings with colleagues from ISSN National Centres which do not regularly participate in Directors' meetings so as to inform them and their host institutions about the development of the ISSN International Centre.

Since 2014, the Director of the ISSN International Centre has visited the following ISSN National Centres: Brazil, Canada, China, France, Germany, Hungary, Morocco, New Zealand, Russia, Spain, U.K., U.S.A. Besides her participation in Directors' Meetings, the Director of the ISSN International Centre has also had meetings with representatives from the following ISSN National Centres: Argentina, Burkina Faso, Colombia, Korea, Lesotho, Nigeria, Sri Lanka, Uzbekistan, and Kyrgyzstan.

1.3. Progress made on strategic objectives

The first 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 an inclusive community by increasing cooperation and direct interactions between representatives of member countries. As announced last year, the cooperation with ISSN National Centers located in South America has been strengthened in 2017 thanks to the creation of the Latin American ISSN Group. In 2017, the ISSN Directors' Meeting took place in Morocco and the ISSN





International Centre supported the participation of representatives from African ISSN National Centers, i.e. Algeria, Burkina Faso, Egypt, Tunisia, Senegal.

A decision was also taken by the ISSN International Centre to award travel grants to Governors to participate in the face-to-face meeting held in Paris every year in April. This decision will certainly encourage more ISSN Member Countries to support applications for their representatives to be elected to the Governing Board.

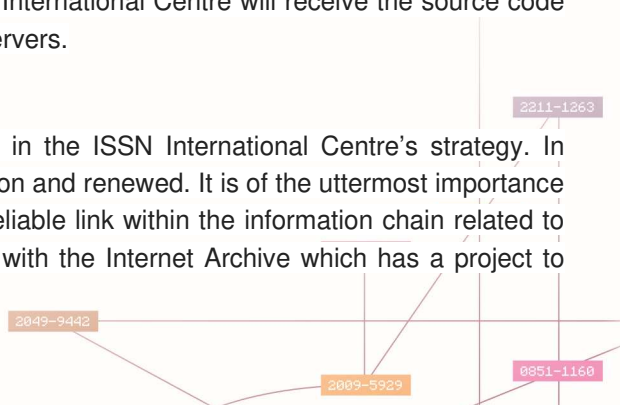
Inclusiveness is also achieved by providing online information in the six official languages of the United Nations. The ISSN International Centre is an intergovernmental organization and, as such, shall disseminate information about its activities to as many interested parties as possible around the globe. The official website of the ISSN International Centre is available in six languages. The interface of the new portal and extranet shall also be translated into six languages since the ISSN International Centre provides its services to a variety of non-member countries and since the ISSN National Centres may eventually use this interface.

Another goal of the ISSN International Centre is to enhance its **data, products and services** and consequently to 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 who will subscribe to ISSN services and set up partnerships with database vendors, aggregators and other information providers.

The adherence to international standards promoted notably by ISO, IFLA, RSC/RDA and the steady 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 ISSN International Centre strives to keep abreast with the changes occurring in the publishing industry and with the evolution of cataloguing practices in libraries. This is the reason why the revision of the ISSN standard within the ISO TC46/SC9/WG5, a working group comprising more than 20 experts from ISSN National Centers, academic and research bodies and the publishing industry, is so important. The Director of the ISSN International Centre is the convenor of this working group which has held distant meetings on a monthly basis since September 2017. An opinion survey was circulated among ISSN users in December 2017 and 1,491 responses were collected. These comments shall be reviewed by the working group to decide upon new avenues for the development of the ISSN standard.

The third goal of our strategy is **to enhance the ISSN International Centre's IT infrastructure** including office and business hardware and software facilities. The new contractor in charge of the maintenance of the ISSN International Centre's IT infrastructure has proved to be reliable and active. Several IT devices were replaced and upgraded in 2017 thus facilitating the activities of the three departments. In 2018, a few IT projects will be linked to the implementation of the new portal since the ISSN International Centre will receive the source code of the portal and implement a mirror system on its own local servers.

Setting up new Partnerships is the fourth goal mentioned in the ISSN International Centre's strategy. In 2017, the partnerships with DOAJ and ProQuest were carried on and renewed. It is of the uttermost importance that the ISSN Register is acknowledged as an efficient and reliable link within the information chain related to serials and continuing resources. Contacts have been made with the Internet Archive which has a project to





archive OA journals identified in ROAD. NISO Transfer Group has agreed that the ISSN International Centre would host the new ETAS service that shall be fully operational by mid-2018.

Improving the governance of the ISSN International Centre is the fifth strategic objective. The Governors are regularly informed about the activities of the ISSN International Centre via intermediate reports. Enhancing corporate communication to raise the ISSN International Centre’s profile is a key aim. The annual report has a new layout and is published online every year. The corporate website is now available in six languages. An international marketing campaign shall be launched in 2018 to widely promote the new portal.

Our most substantive goal 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. This crucial goal includes several distinct objectives which were approved during the 68th Governing Board meeting and the 21st General Assembly meeting which took place in April 2016. Our governing bodies decided 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. The new portal and extranet were launched in January 2018. Further developments are scheduled in 2018 to implement management functionalities which are notably requested by ISSN National Centres.

1.4. The New Portal and Extranet: Project assessment

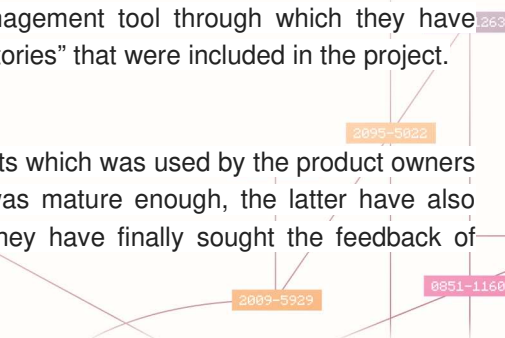
1.4.1 Timetable

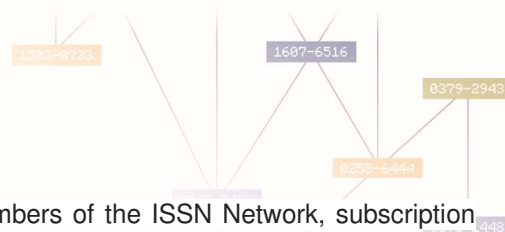
Although the initial timetable planned a public release of the portal and extranet in September 2017, there have been delays in the development of functionalities. In January 2018, a first version of the new portal and extranet was released. The production servers (one for Drupal, one for ElasticSearch, one for the triplestore) 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 will be released in the second version of the application that shall be available as from July 2018.

1.4.2 Project workflow

The project development has used agile methods – a method of project management based on a close cooperation and quick feedback between developers and “product owners”, staff in charge of the definition of user requirements and specifications. Sprint reviews, i.e. meetings to review and validate software developments, were held every three weeks, either online or face-to-face. They were attended by the two product owners, their substitutes, the contractor’s project manager, and whenever possible by the Director of the ISSN International Centre. During the sprint periods, the product owners have been in contact with the developers to provide them with detailed specifications regarding the functionalities to be implemented as well as test the functionalities developed by the contractor during the previous sprint. The two product owners have been granted access to OpenProject, an open-source project management tool through which they have monitored the progress made on the various functionalities or “User Stories” that were included in the project.

The contractor has also provided a platform for computer developments which was used by the product owners to review progress and perform tests. As soon as an application was mature enough, the latter have also involved ISSN International Centre staff to perform further tests. They have finally sought the feedback of





external parties, such as international organizations, publishers, members of the ISSN Network, subscription agencies, and ISSN Portal users. The product owners usually presented the scope of the project and then asked members of the user panels to define their present or potential requirements towards the ISSN Portal and the ISSN Extranet. The members of the panel were then invited to test the functionalities and report on their user experience.

Other stakeholders have also been associated to the project. The web design company which had previously created the graphical layout of the ISSN International Centre corporate website and of ROAD, has designed the templates for the ISSN Portal and Extranet, with the objective to ensure graphical consistency between the different websites managed by the ISSN International Centre. The product owners have also worked with a consultancy company to build the various ISSN linked data models and services.

2. Activities of the ISSN International Centre

2.1. The development of the ISSN International Register

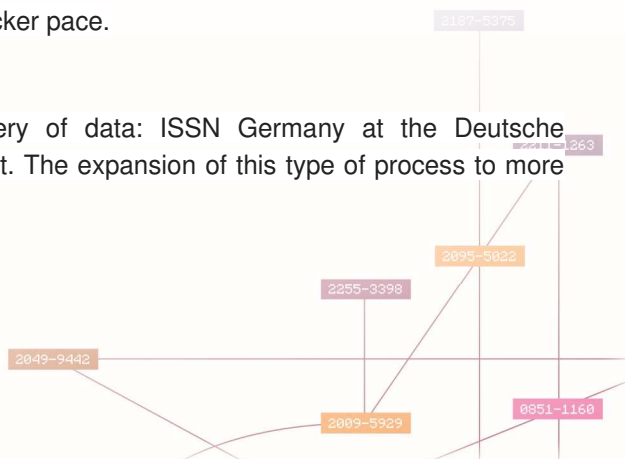
At the end of 2017, the ISSN International Register contained 2,005,090 records in category “confirmed” which are also labelled as “Register” records. The 2 million records threshold was reached on November 30th, 2017. 61,670 new records were added in the ISSN Register in 2017, i.e. 5% increase compared to 2016 figures with 58,696 new records.

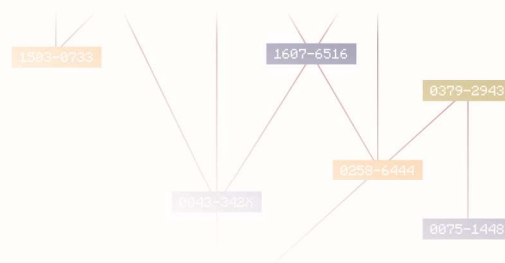
Furthermore, identification of digital resources continues to grow. 22,820 online resources (plus 740 resources on a digital carrier) were identified in 2017. It represents almost 40% of the total of ISSN assigned in 2017. 224,761 online resources and 19,269 resources on a digital carrier are recorded in the ISSN Register as of January 2018.

35 ISSN National Centres are currently using ISSN Virtua system, thus updating the ISSN Register on a daily basis.

The other ISSN National Centres provide the ISSN International Centres with files containing the new and amended records. The number of files received from ISSN National Centres and ingested into the ISSN Register dramatically increased in 2017 with 1,011 files provided by 49 ISSN Centres and containing a total of **197,563** records (compared with 870 files and 170,482 records in 2016). The records are either new or updated records. These files are loaded on a daily basis into the ISSN Register thus supporting the objective of the ISSN International Centre to get fresher metadata at a quicker pace.

Two ISSN National Centres implemented OAI-PMH delivery of data: ISSN Germany at the Deutsche Nationalbibliothek and ISSN Norway at the Nasjonalbiblioteket. The expansion of this type of process to more ISSN National Centres is on the agenda.





2.2. Data, Network and Standards Department

2.2.1. ISSN Assignment

The assignment activity of the department continued to be high, with a total number of 3,920 new ISSN assigned in 2017 (including 3,589 confirmed records and 331 provisional records). This is in line with the figures recorded in 2015 and 2016. It should be specified that amendments of existing records are not included in these statistics.

Table 1: Number of ISSN assigned by the ISSN International Centre in 2017 (sorted by status and medium)

Confirmed records			Provisional records			Total
Print	Online	Other*	Print	Online	Other*	
2,139	1,424	26	254	73	4	3,920

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

Table 2: Number of ISSN assigned by countries by the ISSN International Centre in 2017, sorted by countries (over 100 ISSN / year), including confirmed and provisional records

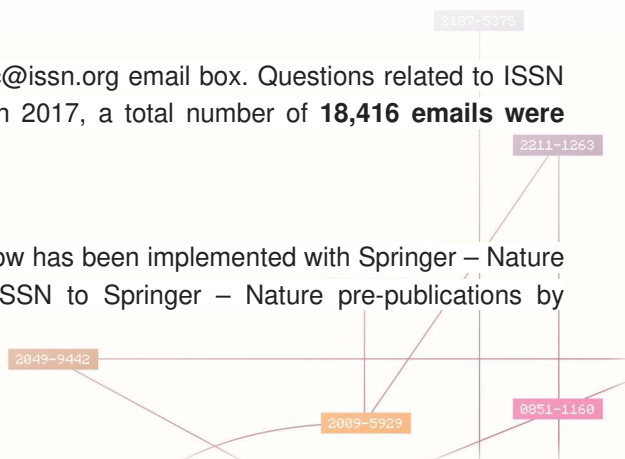
Country	Number of new ISSNs
Ukraine	571
International	534
Pakistan	396
Hong Kong SAR	351
Taiwan, Province of China	209
South Africa	203
Peru	193
Bangladesh	145
Austria	134
United Arab Emirates	117
Iraq	115

2.2.2. Relationships with publishers

The DNS Department maintained a high level of interaction with publishers, as part of its assignment activity, and as a reference centre for any questions related to identifiers and continuing resources.

General questions from publishers are collected via the issnic@issn.org email box. Questions related to ISSN assignments are collected via three different email boxes. In 2017, a total number of **18,416 emails were exchanged with publishers.**

After some experimentation in 2016, a semi-automated workflow has been implemented with Springer – Nature since January 2017. This process is designed to assign ISSN to Springer – Nature pre-publications by





ingesting the metadata provided by the publisher. A total of **510 ISSN** were assigned in 2017 to online and print periodicals and monographic series published by Springer – Nature.

2.2.3. Relationships with ISSN National Centres

Provision of bibliographic expertise

The email address bibquestions@issn.org was still extensively used by ISSN National Centres for bibliographic, cataloguing or technical questions related to ISSN assignment. A total of about 5,000 emails were exchanged between the ISSN International Centre and ISSN National Centres in 2017.

Training sessions

The DNS Department has set the emphasis on training sessions held with Russian-speaking colleagues. A training session was organized prior to the International Book Fair in Almaty (Kazakhstan), from 3 to 5 April 2017. Professionals from the ISSN National Centres of Kirghizstan and Uzbekistan, as well as colleagues from the National Library of Kazakhstan and the Book Chamber of Ukraine, attended the session.

Two remote follow-up training sessions were organized in May 2017 for the librarians of the National Centre of Kirghizstan, in order to show them how to use the cataloguing module in Cyrillic language, newly developed by the Information Systems Department on the ISSN Virtua system.

A remote training session was set up in November 2017 for a librarian employed by the Book Chamber of Ukraine so that she could check provisional records for Ukrainian publications and upgrade them to confirmed status.

Moreover, two series of training sessions were conducted as webinars. In October 2017, a tailor-made training in English was delivered to new staff members of the Indonesian ISSN Centre, i.e. 4 hours of training.

In November 2017, four training sessions (i.e. 9 hours) were delivered in Spanish and provided a complete training for new staff members from the Ecuadorian ISSN Centre. The Dominican ISSN Centre benefited from a comprehensive presentation of ISSN rules in order to better deal with requests from their publishers.

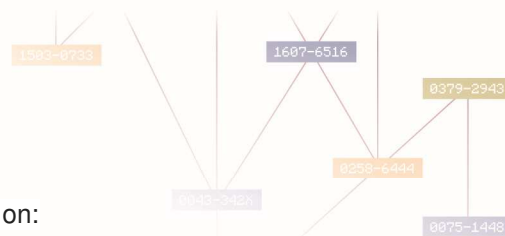
These webinars were recorded and posted on the ISSN Extranet, together with the slide presentations displayed during the training.

2.2.4. Standardization activities

ISSN Review Group (ISSN RG)

The ISSN Review Group met twice in 2017. A remote meeting was organized on April 28th, 2017 and a face-to-face meeting was held on Nov. 6th, 2017 prior to the Directors' Meeting in Rabat.





Among the various topics addressed, the ISSN Review Group worked on:

- the harmonization between RDA, ISBD and ISSN, which was the main topic of discussion (see below, sections “IFLA” and “RDA”);
- the use of the ISSN by abstracting and indexing services;
- how ISSN National Centres could use the Electronic Transfer Alerting Service (ETAS), a service designed to inform all stakeholders of the serials supply chain whenever there is a transfer of publication ownership from one publisher to another;
- various bibliographic issues.

Besides, members of the ISSN Review Group were invited to test the new Portal. Tests were performed in October 2017 and findings were reviewed during the November meeting. The bugs that were identified and the evolutions that were requested have been reported to the contractor.

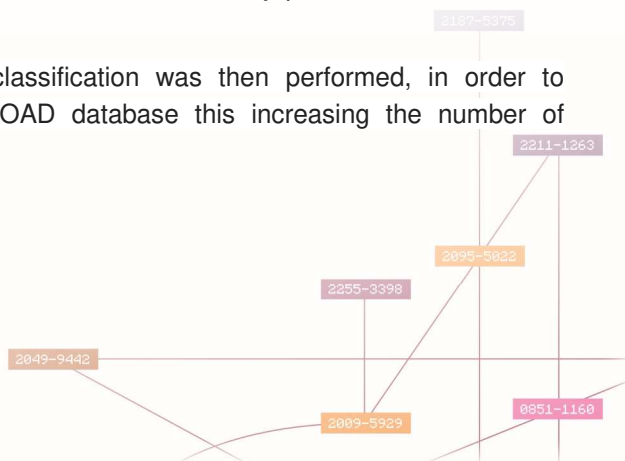
Quality Plan for ISSN Data

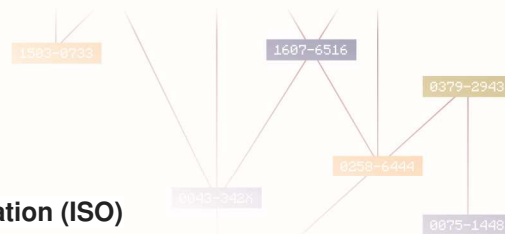
In 2017, the DNS Department started to implement its Quality Plan. The first goal of this project was to offer a pragmatic definition of “quality”: a definition that would be related to the objectives, the context and the resources of the ISSN International Centre and the ISSN Network.

On a theoretical side, the Quality Plan identified the different domains where quality processes should be implemented: quality of bibliographic data (i.e. the ISSN records themselves), quality of ISSN coverage (are all continuing resources identified by an ISSN?), quality of processes and workflows (within the Network and with users of ISSN services).

Within these three domains, various criteria were defined and linked to indicators. The Quality Plan has helped identifying, prioritizing, and assessing the outcomes of quality projects. In 2017, three important projects were completed to support the release of the new Portal:

- The publication places specified in ISSN records were aligned with the data from Geonames database, in order to georeference them and set up a cartographic search in the Portal;
- A common classification was applied to all Portal records through a mapping from the UDC and Dewey classifications available in ISSN records, to the UDC Summary, the simplified and linked data version of UDC (see <http://www.udcsummary.info>). This proved effective for all ISSN records already provided with a UDC or Dewey classification, i.e. more than 90% of ISSN records;
- A mapping between UDC Summary and ROAD classification was then performed, in order to automatically ingest records for open access serials in ROAD database this increasing the number of resources indexed in ROAD (see below).





Activities in the framework of the International Standard Organisation (ISO)

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 survey was made available in 7 languages and triggered 1,491 responses, among which 800 from libraries, 400 from publishers, and 150 from scholarly societies. These findings are under discussion within the WG5.

In 2017, the ISSN International Centre participated in a working group on the revision of ISO 8 -- Presentation of periodicals. This standard defines how to present and display identification elements on print and digital periodicals (e.g. title, ISSN, enumeration) and it had not been revised since 1977. A Committee Draft was distributed for ballot from August to October 2017 and was approved. Regular meetings were held from October 2017 to January 2018, to review the comments received during the CD phase, improve the document, and prepare the Draft International Standard which will be balloted in March 2018.

The Director of the ISSN International Centre chaired the 2017 ISO TC46 Plenary meeting which was held in Pretoria, South Africa (May 21-26, 2017). During this meeting, the ISSN International Centre was confirmed as Registration Authority for ISO 4 and ISO 3297 through a resolution taken by SC9 Committee on Identification and Description. Further to this resolution, ISO Council adopted a resolution by correspondence (Council Resolution 25/2017) approving that ISSN International Centre charges fees on a cost-recovery basis in the operation of the Registration Authority for ISO 4 and ISO 3297.

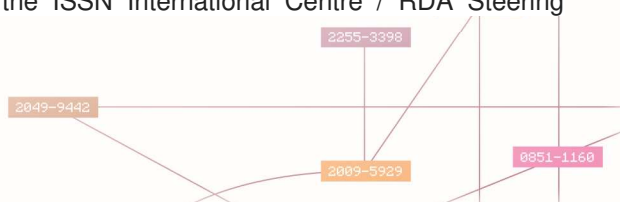
Activities in the framework of the International Federation of Library Associations (IFLA)

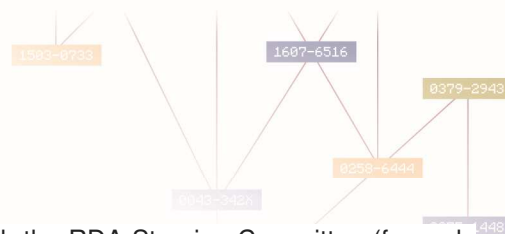
At IFLA, the ISSN International Centre is represented in various sections and working groups:

- the Serials and Other Continuing Resources Section,
- the Standing Committee of the Cataloguing section,
- the FRBR Review Group,
- the ISBD Review Group,
- the PRESSoo Review Group.

PRESSoo was endorsed as an official IFLA standard by IFLA Professional Committee in March 2018 (<https://www.ifla.org/publications/node/11408>).

In 2017, IFLA published its Library Reference Model, or IFLA LRM (<https://www.ifla.org/publications/node/11412>), a conceptual model which covers all the entities of the bibliographic environment and an overarching model for all cataloguing rules and formats, including the ISSN Manual. The specific impacts of LRM for the handling of serials were discussed during a one-day meeting held on August 25th, 2017. This discussion had an impact on the ISSN International Centre / RDA Steering Committee discussion paper (see below).





RDA

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

As per this agreement, and in order to take into account the impact of the publication of IFLA LRM, the RDA Steering Committee and the ISSN International Centre have issued a discussion paper summarizing common views about the modelling of serials and other continuing resources. The statements of this discussion paper should influence, on the one hand, the RDA Toolkit Restructure and Redesign project, and on the other hand, the evolution of the ISSN Manual. The RSC Aggregates Working Group has also produced a detailed report on the modelling of aggregate publications, which include continuing resources, and that will have an impact on ISSN activities.

Both documents were reviewed and approved during the RSC Annual Meeting in October 2017. The RSC/ISSN International Centre discussion paper was reviewed by the ISSN Review Group during its meeting in Rabat in November 2017 and this paper should be published shortly on the RSC website.

EDITEUR

The ISSN International Centre is a member of EDItEUR, the organization in charge of developing and maintaining the standards of the publishing industry, including ONIX and ONIX PC (ONIX for serials). The ISSN International Centre participated in two ICEDIS meetings in April and October 2017.

2.2.5. The development of ROAD in 2017

As of 31 December 2017, ROAD has crossed a threshold with **24,060** registered publications, showing a global increase of **6,710** new publications compared to December 2016. The number of scholarly open access publications in the ISSN database has tripled since the ROAD website was opened in December 2013.

Among the five types of resources referenced in ROAD, journals are mostly represented. The breakdown in types of publications demonstrates a clear evolution in favour of scholarly blogs. Indeed, this type of resource has risen tremendously from 85 in 2015 to 1332 in 2017. This is due to the ISSN assignment policy in favour of the OpenEdition scholarly blogs. The breakdown by academic disciplines and types of resources shows that all fields of knowledge are covered, with a strong prominence in social sciences and STM (sciences, technology and medicine). This trend has not curbed since 2014.

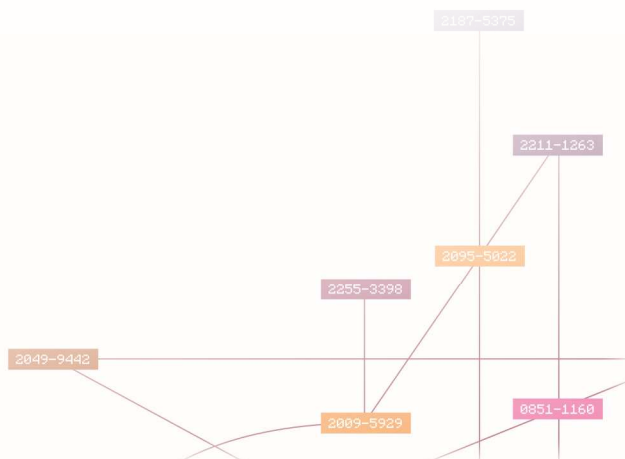


Table 3: Distribution by type of OA resources in ROAD (2014-2017)

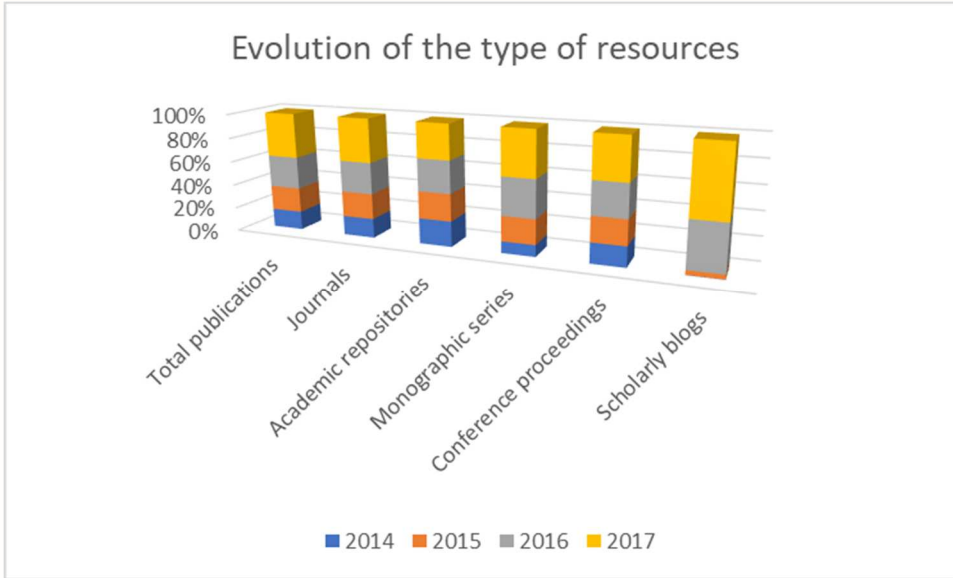
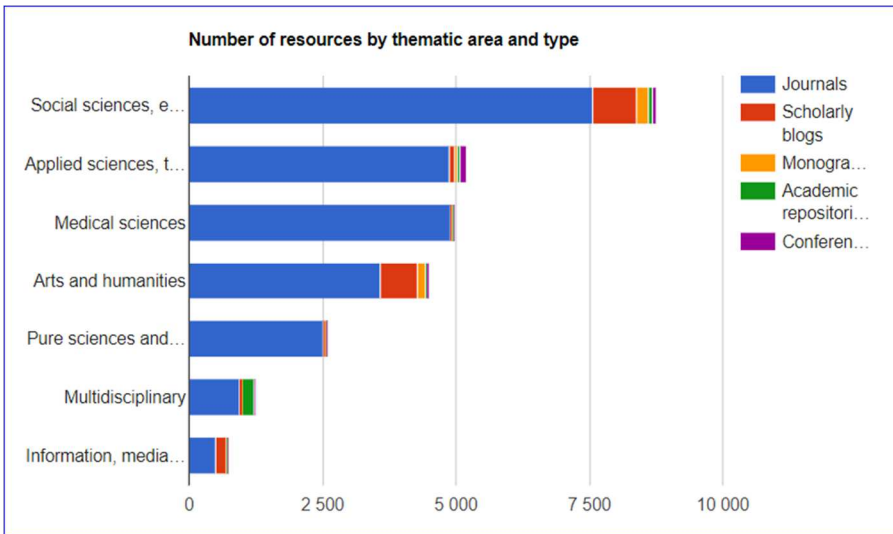
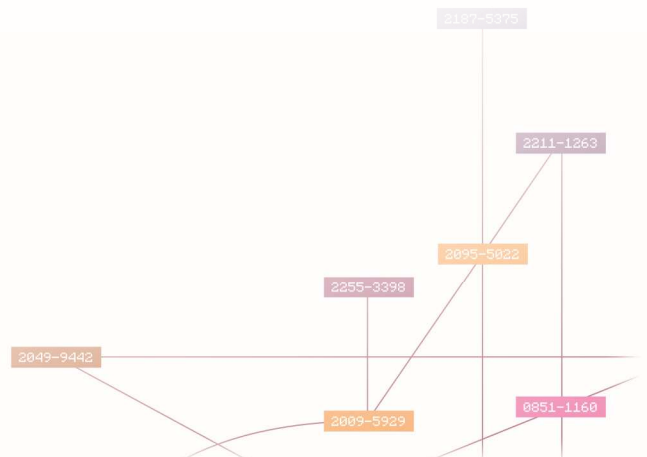


Table 4: Number of OA resources in ROAD by subject and type



The top 10 contributing countries have changed since 2014 with a strong development of French OA publications, and with the emergence of Iran and Indonesia. Moreover, a diversification of languages of the publications can be observed.



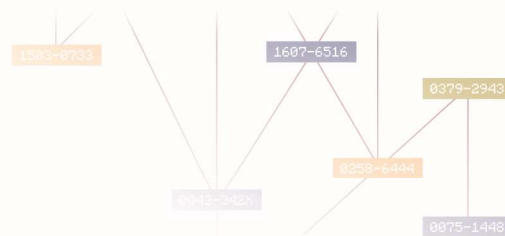


Table 5: Top 10 ISSN National Centres contributing to ROAD

<i>France</i>	2,296
<i>India</i>	2,154
<i>Indonesia</i>	1,627
<i>Brazil</i>	1,183
<i>Iran</i>	1,164
<i>United States</i>	1,122
<i>United Kingdom</i>	1,088
<i>Poland</i>	976
<i>Spain</i>	774
<i>Turkey</i>	764

Open access resources only represent 1% of the ISSN Register. As a matter of fact, numerous online continuing resources still remain unidentified by an ISSN, notably in Africa, in 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.

Therefore, the participation of all ISSN National Centres is crucial to develop the coverage of the ISSN database. ISSN National Centres should widen the scope of their ISSN assignments to online resources, and notably to open access scholarly resources. This is a way of developing the ISSN database in terms of geographic and thematic coverage, as well in terms of types of identified resources.

2.3. Sales, Marketing and Communication Department

The main missions of the SMC Department are to promote ISSN, communicate about ISSN services worldwide, and sell ISSN services tailored to customers' needs.

2.3.1. Sales

Compared with 2016 turnover, the 2017 turnover is quite stable.

The main services invoiced are the access to ISSN Portal (52,17%) and the ISSN Data File (38,24%). The distribution of the turnover slightly changed in 2017:

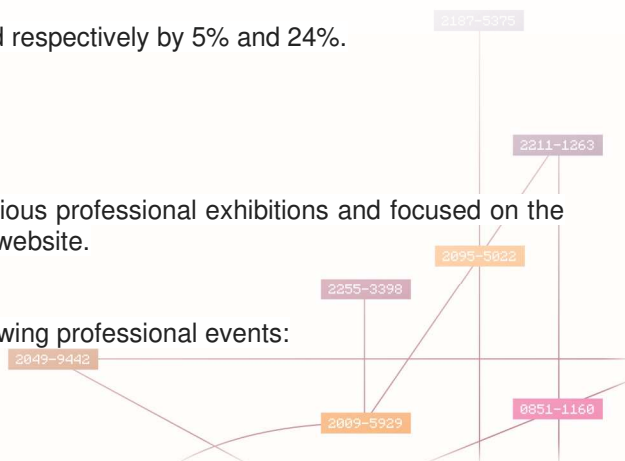
- The ISSN Portal turnover decreased slightly due to the fact that there were less new ISSN Portal subscriptions in 2017 compared with the year 2016;
- The ISSN Data File and OAI-PMH turnovers increased respectively by 5% and 24%.

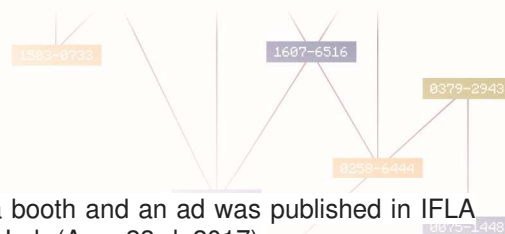
2.3.2. Promotion and Outreach

In 2017, the SMC Department promoted ISSN services at various professional exhibitions and focused on the development of a multilingual version of the ISSN institutional website.

Professional events

In 2017, the SMC Department sent representatives to the following professional events:





- IFLA (August 2017, Wroclaw, Poland): The ISSN IC rented a booth and an ad was published in IFLA booklet; A demo of the new services was set up at IFLA Expo Pavilion Lab (Aug. 23rd, 2017);
- Frankfurt Book Fair (October 2017, Germany): The ISSN IC rented a table and had appointments with potential customers; A live demo of the new services was presented (Oct. 13th, 2017) with approximately 15 people attending.

A specific event for French customers was organized in Paris on Dec 12th, 2017. The ISSN International Centre rented a conference room to deliver a presentation of the new platform. The event was widely marketed in the French professional press and 61 people attended.

ISSN on online media

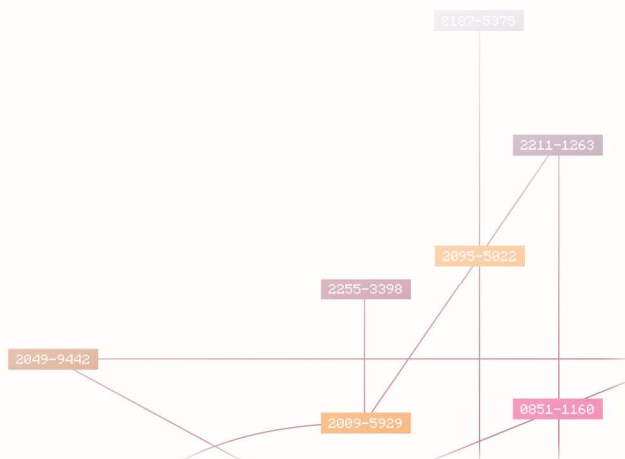
In 2017, the ISSN institutional website was available in three languages (English, French, Spanish). Three additional languages were added in March 2018 (Arabic, Chinese, Russian).

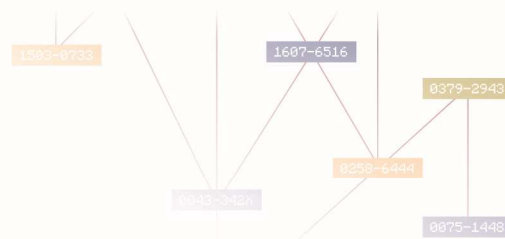
ISSN is a brand known on social media: The ISSN Facebook page (<https://fr-fr.facebook.com/ISSNInternationalCentre>) reached 1,959 likes and 1,977 followers as of February 2018. The ISSN Facebook page is regularly updated with news, photos, and videos.

The Slideshare page (<https://www.slideshare.net/ISSNIC40>) is also regularly updated with presentations about the ISSN International Centre and the ISSN Network. There are currently 34 presentations published.

The ISSN Newsletter, edited by the DNS Department, consists in a press review and announcements. Three special editions were posted in 2017 dealing with specific issues, i.e. Open Access in India, IFLA and libraries, and Open Access Scholarly Communication during the International Open Access Week. As of December 2017, there were 7,109 subscribers, with a steady monthly increase of 86 new subscribers.

As of 16 January 2018, ISSN_IC Twitter account had approximately 460 followers, an increase of about 50% compared to 2016 figures.





2.4. Information Systems Department

The IS Department continued to provide its current services to ISSN International Centre staff and to the ISSN Network and external customers and partners. 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’s Departments

The cooperation with the IT contractor in charge since 2016 of the monitoring of the local computer system infrastructure at the ISSN IC, focused on the following issues:

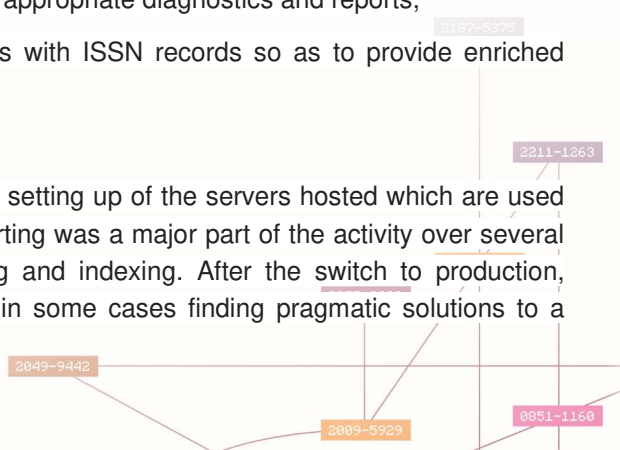
- Local servers: the main server of use for the office activities was replaced with a new and more powerful machine in mid-2018. This machine hosts a number of virtual servers, including in particular a new Linux server, used for developments and specific processing activities performed by the DNS;
- All the PCs used on the premises were fitted with SSD disks (instead of hard drives) and systematically upgraded to 8 gigabytes of RAM when appropriate. This extended the working life of the hardware concerned;
- After the positive results of initial testing, the internet connection was switched to a fiber line. This allows for very fast data transfer when needed (for instance, transferring the whole ISSN database can take less than two minutes). The cable connection is kept as a backup in case of a failure of the main one;
- Due to unexpected bugs in the local network which became more numerous at some point, the old switches were replaced by a single bigger unit supporting the whole wiring of the office, which solved the issues encountered;
- After lengthy checks, it was discovered that the antivirus application which was being used for the protection of the PCs was causing annoying “freeze situations”, caused by the new protection layer against cryptolockers. It was replaced by another antivirus application which solved the issue.
- More generally, an internal wiki is used to for the management of the documentation of the IT activities. It can also be used by other services as necessary.

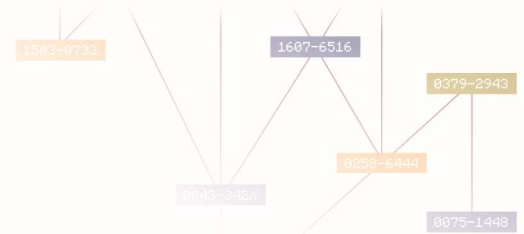
2.4.2. Other projects

The main thrust of the activities of the service was dedicated to the work on the development and planning of the new ISSN Portal in cooperation with the other services (DRN, SMC) and with the contractor. The head of the department cooperated on the agile conception of the different modules of the application. He also contributed the development of bridges between the Virtua application and the new Portal:

- An automated script for the export, conversion, modification and checking of the daily data files fed to new Portal from data exported from ISSN Virtua, together with appropriate diagnostics and reports,
- A script for the combination of external data sources with ISSN records so as to provide enriched records to Portal users.

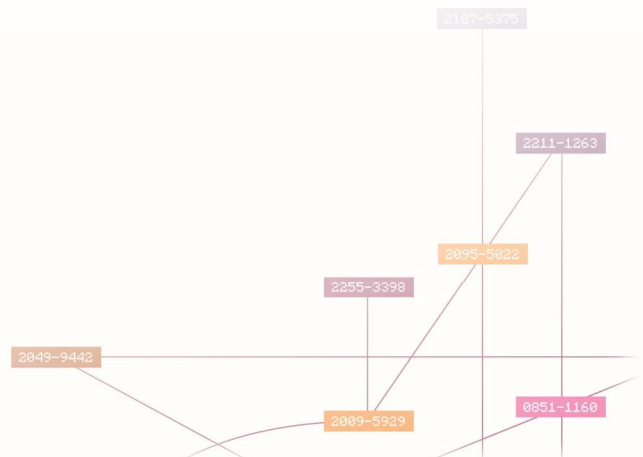
The IS department also cooperated with the contractor on the setting up of the servers hosted which are used for the production version of the Portal. Bug hunting and reporting was a major part of the activity over several months, in particular concerning issues related to searching and indexing. After the switch to production, monitoring the new system was an essential task, entailing in some cases finding pragmatic solutions to a number of configuration issues.

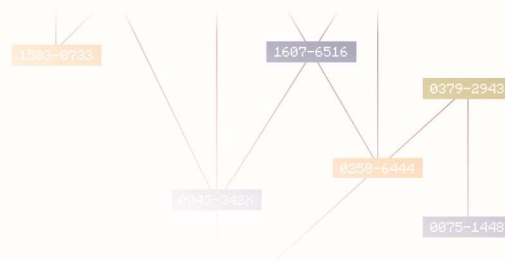




The IS Department cooperated with another contractor on the preliminary conceptual work for the prefiguration of a new production system (ISSN +) which would in due time replace the current ISSN Virtua system. This work was instrumental in launching an initial call for the expression of interest which took place in September 2017. The findings of this survey were presented at the 2017 Directors' Meeting. Since the project regarding the new Portal and Extranet was delayed, the ISSN International Centre has not yet launched the call for tender for the provision of ISSN +.

The IS Department cooperated with the University of Manchester which initially developed the current version of the TRANSFER web site in order to gain some knowledge about the application framework. On this basis, the head of IS Department developed a prototype for a new version of the web site, based on ElasticSearch, which will be under the responsibility of the ISSN International Centre following an agreement with NISO Transfer Group. This version is currently being tested before a switch to production which will also require a bridge from the new ISSN Portal.





3. Cooperation with other partners

3.1. EDINA: The Keepers' Registry

EDINA - 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 services to UK-based academic libraries. Since September 2017, the service has become optional and libraries can decide whether they subscribe or not. The future of the project shall be clarified in 2018.

3.2. CIDEMIS

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 was intended to streamline the process and facilitate reporting between SUDOC cataloguing staff, the ISSN International Centre and ISSN National Centres. The objective is to assign more ISSN to current and ceased serial resources, complete or update ISSN records, and thus improve the quality and the coverage of the ISSN Register.

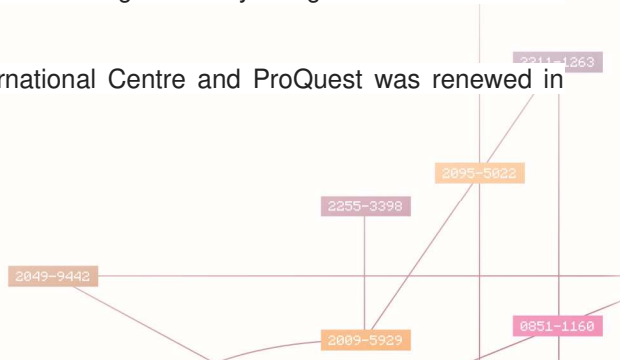
In 2017, **2,107** requests were sent to ISSN National Centres through CIDEMIS (**1,791** assignment and 316 correction requests). A total of **880** requests have been processed (814 assignment and 66 correction requests), i.e. a rate of **41%**.

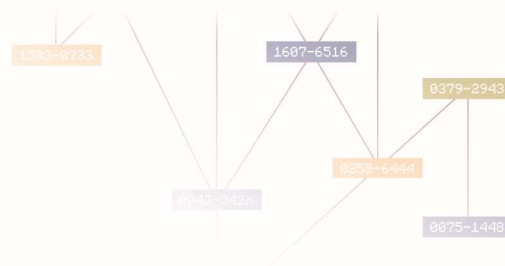
A survey on the scope of ISSN assignment by ISSN National Centres was circulated in order to identify the kind of resources the ISSN National Centres may exclude from ISSN assignment, and then inform CIDEMIS users and other partners.

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.





4. Conclusion

The strategic programme proposed by the ISSN International Centre management and voted by the Governing Board and the General Assembly in April 2016 shall continue to be deployed in 2018.

The delay in the implementation of the portal and the new extranet deferred the start of the project to replace the ISSN Register production tool. Indeed, all the departments are very mobilized on the definition of the services that the contractor has been implementing on the new ISSN Portal. Since January 2018, these tasks have been supplemented by support for users, with publishers requesting the identification of their publications and colleagues from the ISSN National Centres starting to use the new portal. At the Directors' Meeting in November 2017, it was decided to leave the old portal in operation for a while so that the ISSN National Centres could be trained and make a smooth transition to the new services.

Consequently, the work programme based on the strategic objectives should still require one or two years with the deployment of the new ISSN Register production tool in 2020. However, it is important to take stock and relaunch a dialogue on future objectives.

