Annual Report
2022

SND
Swedish National Data Service

Contents

Preface

During 2022, SND took steps forward with an increase in dissemination of research data, continued development of e-systems for research data management, new training materials and courses, a wide range of network activities, and participation in international projects. We have also prepared for the 2023–2026 period of operations, which places an emphasis on an increase in training activities and legal advice. For that purpose, SND has employed two training coordinators and increased our access to legal officers to respond to higher demands from the SND network.

On a consortium level, SND's operations in 2022 were characterized by continued development of the SND consortium thanks to active efforts by SND's Steering Committee. Open Science activities, particularly regarding research data, at the consortium universities and across the SND network, provide a clearer profile for the competencies and infrastructure that have to be developed together. This gives the Steering Committee better opportunity to govern and evaluate the operations for the greatest benefit.

Of special importance in 2022 was to finalize the new consortium agreement for the 2023–2026 period and to further structure the operations by renewing SND's vision and other regulatory documents. A working group in the current Steering Committee also prepared a suggestion for a new Steering Committee for the coming period of operations. Like in other organizations that receive funding from the Swedish Research Council, the new committee members do not represent the consortium universities, but are elected based on their merits as specialists. Our goal was to create a group of members with representation from different disciplines, infrastructure experience, and genders, but also from the private sector and with Nordic representation.

All in all, SND has had a good development in 2022 and move strengthened into the next period.

Max Petzold,
Director of SND

Members of the SND Network

At the end of 2022, the SND Network consisted of the following members (consortium members in bold text).

1. Blekinge Institute of Technology
2. **Chalmers University of Technology**
3. Dalarna University
4. Halmstad University
5. Jönköping University
6. Karlstad University
7. **Karolinska Institutet**
8. Kristianstad University
9. **KTH Royal Institute of Technology**
10. Linköping University
11. Linnaeus University
12. Luleå University of Technology
13. **Lund University**
14. Malmö University
15. Mid Sweden University
16. Mälardalen University
17. National Veterinary Institute
18. RISE Research Institutes of Sweden
19. Royal College of Music
20. Sophiahemmet University
21. Stockholm School of Economics
22. **Stockholm University**
23. Swedish Polar Research Secretariat
24. **Swedish University of Agricultural Sciences**
25. Södertörn University
26. Swedish School of Sport and Health Sciences
27. **Umeå University**
28. University College Stockholm
29. University of Borås
30. **University of Gothenburg**
31. University of Gävle
32. University of Skövde
33. University West
34. **Uppsala University**
35. Örebro University

SND Network Activities

After the COVID-19 pandemic forced us to organize all of the SND network meetings as virtual events, we could meet in person again in 2022. SND organized two on-site network meetings and continued the tradition of hosting regular webinars.

11 February

EOSC – what's going on and how do Swedish stakeholders contribute to it?

A webinar that gave some insights into how far the work with EOSC has come, and which related initiatives are under way in Sweden.

16 March

The data puzzle – which pieces need to be in place?

A webinar about the workflow of research data, taking the OAIS model and CoreTrustSeal certification as a starting point, and what can be the DAU-functions' role in this.

26-27 April

Network meeting in Gothenburg

This event offered various sessions over two half days, and SND hosted a dinner in the evening. During the meeting, seven working groups were presented, which the participants were invited to join. The event ended with a selection of three workshops.

23 May

Research data about indigenous peoples – ethics and support

Members of the DAU at Umeå University and Uppsala University organized this webinar on specific questions that arise when you manage research data from indigenous populations.

28 September

"Where should I share my data?" Possibilities for sharing data

A webinar on different platforms and repositories for research data dissemination, and what requirements that publishers and funders place on them.

19-20 October

Outreach – reaching out to researchers

A two-day on-site network meeting at Karolinska Institutet with presentations from several HEIs about their work in reaching out to researchers to create know-how about good research data management and open access to research data. Three workshops were offered as a side event the day before the meeting.

Alessandra Soro from 4TU.ResearchData participated digitally at the two-day network meeting at Karolinska Institutet, presenting strategies on how to build communities in order to achieve change in the attitudes among researchers to the idea of open science.

8 November

How to create a MOOC: Methods and pedagogy

A webinar led by Umeå University on how to create a Massive Online Open Course (MOOC) for educational puposes.

7 December

How can my organization use SND to disseminate data?

A webinar about how members of the SND Network can use the SND system to describe and disseminate data.

Other events

The SND IT forum is a recurring event that addresses IT related questions about research data. During 2022, there have been two meetings. There have also been three workshops for DAU staff about how to provide support for data management plans, as well as seven Q&A webinars for researchers, mainly organized by SND Domain Specialists. As the Swedish RDA node, SND has been a co-organizer for three RDA events.

Working groups

SND has invited participation in seven working groups during the year and the interest from the network was so high that all groups could be established. The purpose of these groups is to produce deliverables that benefit the work with open access to research data.

The following groups were established:

- Roadmap for research data activities at universities and research organizations
- Routines for the disclosure of restricted research data
- Storage solutions for research data
- The DAU handbook
- Terminology work – a glossary for research data management terminology
- Reference group for researchdata.se
- Exchange of and access to training resources

The DAU handbook

The working group for the DAU handbook continues to develop the DAU handbook further and to make it more used by the DAU. A questionnaire was sent to the network members who use DORIS or who in other ways work with questions relating to research data. The response rate was high, and the replies will be used to make the DAU handbook more user friendly.

Following up with the SND Network's Data Access Units

During the year, representatives from the SND office have had on-site meetings with more than half of the members of the SND Network. The goal is to visit all members annually to discuss practical matters regarding research data management and access to research data, as well as to address more general questions.

New regulatory document

During 2022, the SND Steering Committee has adopted a new policy: the SND Collection policy for SND CARE. The policy describes which research data that can be deposited with SND CARE.

SND Consortium

SND is governed by a consortium consisting of nine universities. University of Gothenburg is the host university of SND, and the SND main office is located in Gothenburg.

As part of the preparations for the coming period of operations, the SND Annual General Meeting, the highest decision-making party of SND, has adopted a new strategic plan where SND's vision and objectives are established as a direction for the work in the consortium.

The Annual General Meeting has also, in accordance with the requirements of the Swedish Research Council, adopted an updated devolvement plan that details how a possible devolvement of SND should be made in order to safeguard that no research data are lost.

Furthermore, the Annual General Meeting has discussed the new consortium agreement for the 2023–2026 period, which regulates the consortium universities' responsibilities to one another in the SND collaboration.
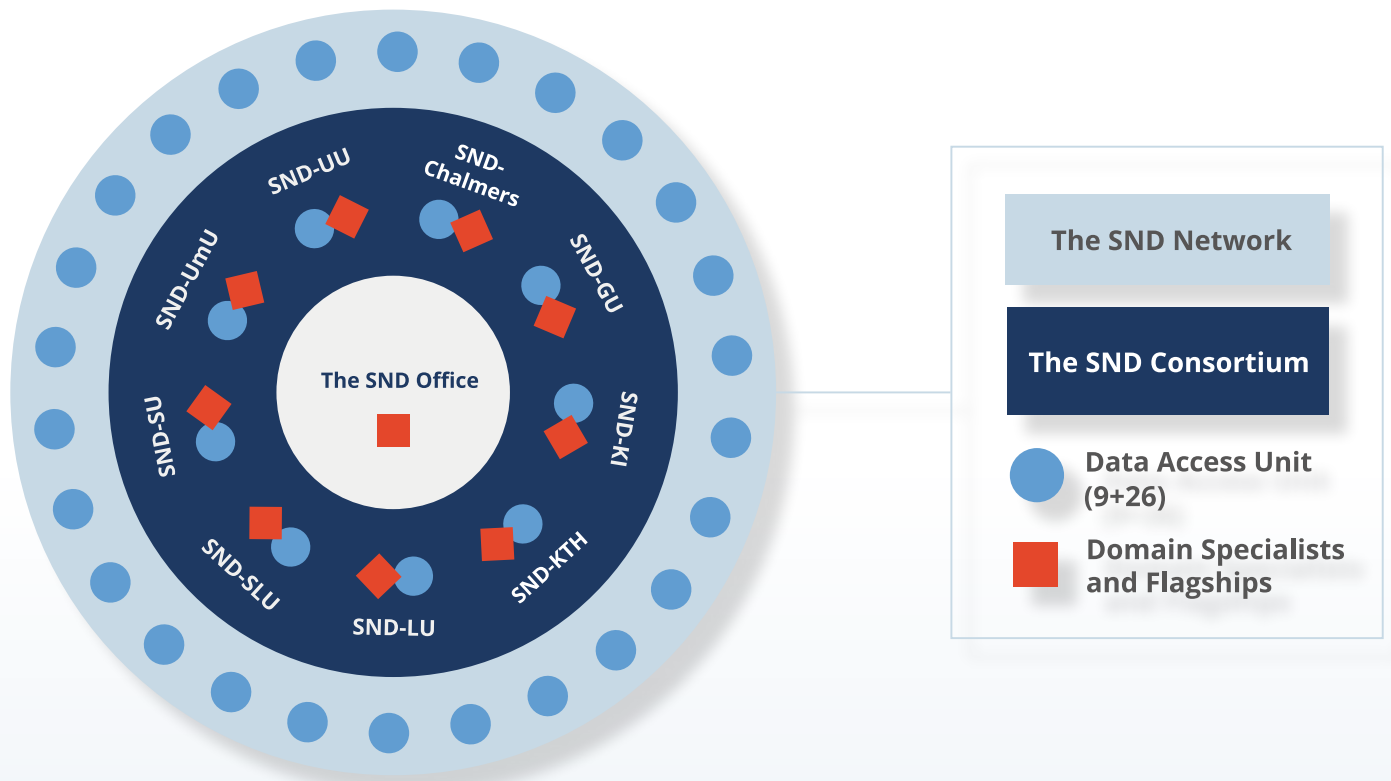
SND's Steering Committee has had four meetings in 2022, one of which was a residential meeting to facilitate more in-depth discussions. The Steering Committee has taken initiative to the following documents and activities that strive to provide SND with a high-quality long-term stability:

- **A collection policy** that governs which research data SND handles and under which conditions;

- **A collaboration agreement** that regulates the commitments between SND's network members and the SND operations;

- **A quality assessment.** This was done during 2022 with two external experts from corresponding operations in Norway and Denmark, and two researchers with data dissemination experience from Umeå University and Lund University. The results of the assessment have been integrated into the operations at the SND main office;

- **A Flagship pilot.** The consortium universities have during the current period of operations

co-funded the SND operations with Domain Specialists, who have primarily been researchers with good knowledge of management and dissemination of research data in their scientific fields. In 2022, there has been a pilot project where the universities could choose to fund a so-called Flagship instead of a Domain Specialist. A Flagship is a more comprehensive project, but limited in time, to develop routines, knowledge, and technology for research data management, and where a clearly stated objective is that other higher education institutions shall be able to benefit from the results. The pilot project took place at Chalmers, KTH Royal Institute of Technology, and Lund University and will be adopted in the next period of operations.

Internal Projects

During 2022, SND has continued to develop and improve our services. New features have been added to the DORIS system to increase its usability. We have also initiated an exciting project: to develop researchdata.se, a new national portal for research data.

Metadata profiles

Since 2019, SND has had several metadata profiles that are specific for various research areas to describe data that will be made accessible through the SND research data catalogue. SND aims to develop specific profiles for the top classification levels in the OECD classification Fields of Research and Development (FORD). In 2022, the work has continued with a profile for Agricultural and Veterinary Sciences. This profile is currently being evaluated by domain experts before it can be implemented in the SND system. During the year, all profiles have also been thoroughly documented and published in the SND community on Zenodo.

DORIS

Development of SND's system DORIS has continued throughout 2022 to create a better system for describing and disseminating research data. Most of this work has been dedicated to creating a function that makes it possible to send messages about a data description between researchers and reviewers in DORIS. With this function, you can trace a case over time in a more transparent way than what is possible in e-mail communication. Alongside this function, we have developed an administration interface where you can manage and administer user accounts.
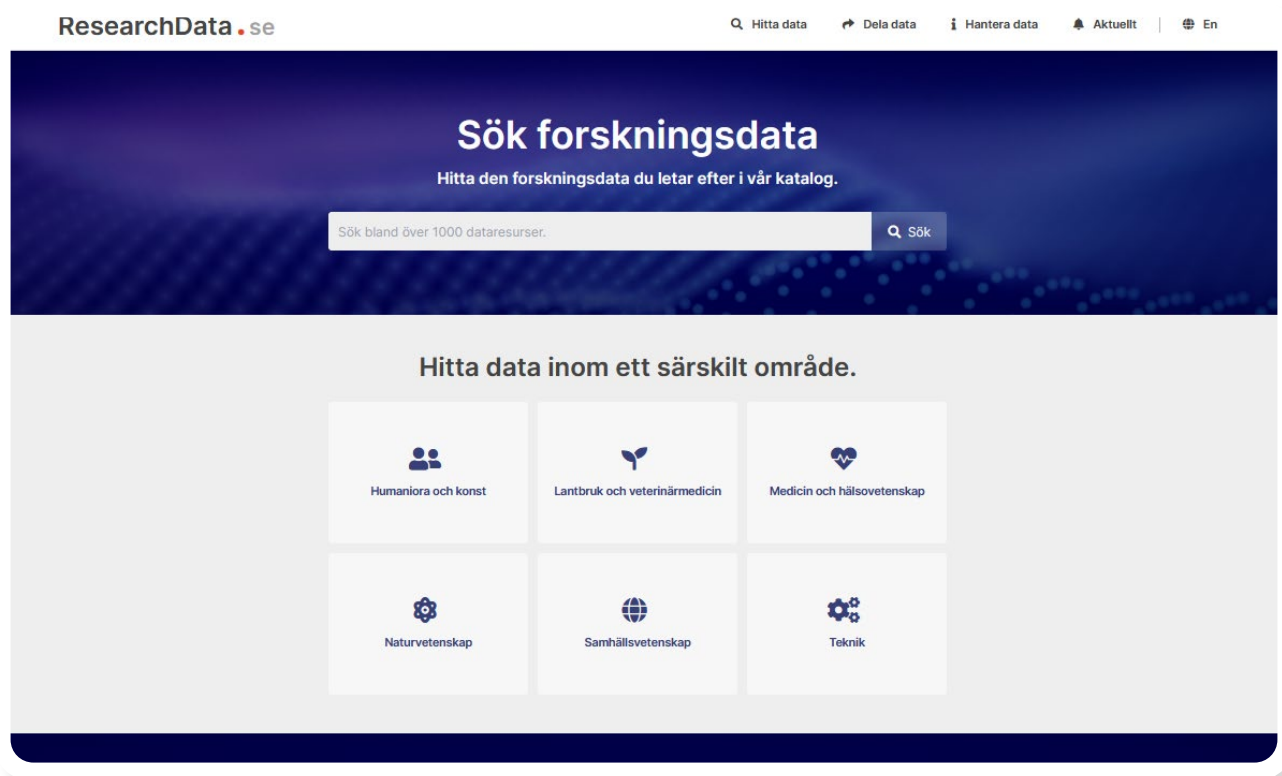
Focus has also been on the integration with local storage solutions in order to progress to an entirely distributed operation. While the work with integrated storage continues with representatives for the HEIs, SND has developed a possibility to share sensitive data without integrated storage, using functions and routines for manual management of file information.

Researchdata.se

At SND, we believe that there is a need for a first point of call, or a key service, for researchers and organizations who search for Swedish research data. Therefore, we have initiated an exciting development project: developing researchdata.se. This new website (also reachable as forskningsdata.se) will become a centralized data portal to easily find, access, share, and reuse various types of research data created by researchers across Sweden. The portal will offer an advanced search function, the option to share data via the SND repository or other alternatives, and information on appropriate ways to share data. There will also be training materials and other resources and tools that are useful for researchers at various career stages. The main focus of the portal, however, will be on its search functionality.

Whilst the portal is an SND initiative, it will remain neutral in that all partners and infrastructures invited to cooperate in developing the portal are equally visible. Further, we plan to create two reference groups with members from the SND Network and researchers from different fields, to receive feedback from them.

The current snd.gu.se website will offer information, guides, news, and resources more specific to research data support staff and the general SND Network, while the search function and the entire catalogue will be moved to the new portal.

During 2022, a demo version of the new research data portal, researchdata.se, has been developed.
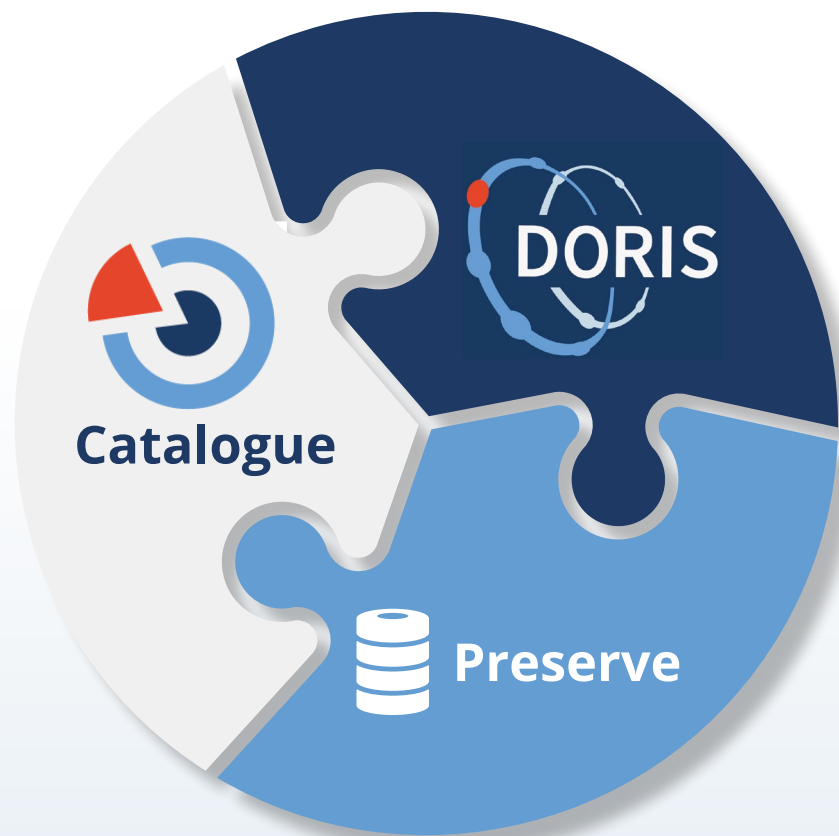
Collaboration with Sunet on storage solutions

The collaboration with Sunet regarding various integrations between the storage services at Sunet and SND's DORIS system has continued during the year, with the main goal to make data stored at Sunet accessible through SND. The focus over the year has been to create an integration between the new service Sunet Drive and DORIS, where several HEIs are waiting for this integration to make their data accessible through DORIS.

During the year, work has progressed at SND with producing an architecture and design of the storage API in DORIS. This API will be used by any external storage solution where data are stored and where the data should be published through DORIS. At Sunet, a third-party module has been chosen for Sunet Drive, which will be responsible for sending the required metadata to the storage API in DORIS.

Additionally, collaborations have been established with HEIs that are non-users of Sunet Drive to get feedback on the storage API and input on how the API should be enhanced with additional features.

Development of the storage API and the Sunet Drive module will continue in the upcoming year.

International Collaboration and Projects

SND is part of a global infrastructure, where collaboration plays a central part. SND's collaborations fall into two main categories: initiatives from the European Union, such as EOSC and CESSDA ERIC, and organizations that provide essential services or expertise related to research data management and repositories.

EOSC

The objective of the [European Open Science Cloud (EOSC)](#) is to federate existing research data infrastructures in Europe and realize a web of FAIR data and related services for science.

The EOSC Association is the legal entity established to govern EOSC. It was formed in 2020 and now has close to 250 members and observers. SND, with the University of Gothenburg as host university, is a member, as well as eleven other Swedish organizations, seven of which are SND consortium universities.

CESSDA ERIC

[The Consortium of European Social Science Data Archives (CESSDA)](#) is an ERIC, a European Research Infrastructure Consortium, that provides large-scale, integrated, and sustainable data services to the social sciences. It brings together social science data archives across Europe, to promote the results of social science research and support national and international research and cooperation. Sweden is a member of CESSDA ERIC and SND is appointed Swedish Service Provider.

In 2022, the work continued to complete the eleven tasks included in the CESSDA Agenda 21–22. Two tasks were led by SND: Widening of CESSDA European Coverage, and Trust Activities. SND was also involved in the tasks Journals Outreach, Data Archiving Guide (DAG), and CESSDA Resource Directory.

SND has also fulfilled an appointment as Content Contact for the upcoming European Question Bank (EQB), and taken part of the technical committee

as a non-executive contact. Furthermore, SND is responsible for the Swedish language translations of the multilingual ELSST thesaurus and the controlled vocabularies in CESSDA.

RDA/RDA Sweden

The Research Data Alliance (RDA) is driven by more than 13,000 members. Most of the practical work in RDA happens in the interest and working groups.

In 2022, it was decided that the 20th RDA Plenary should be held in Gothenburg, and co-hosted by Chalmers University of Technology, University of Gothenburg, and SND. The theme is "A Decade of Data: Celebrating 10 Years of the Research Data Alliance", and the event will be held 21–23 March 2023, with side-meetings on the 20th and 24th of March.

A pan-European RDA network consisting of 22 national nodes has been created. SND coordinates the Swedish RDA node and drives the RDA node work in Sweden. In 2022, RDA Sweden organized three webinars together with the Danish and Norwegian RDA nodes: Research Software and Reproducibility, Machine actionable DMPs, and RDA and Social Sciences.

SND staff, researchers, and research data experts in the SND network contribute to the development of RDA as individual members. Several of them are involved in various interest and working groups.

Other international Collaboration

SND's participation in international organizations in the fields of metadata standards and persistent identifiers has continued through the memberships in the DDI Alliance, DataCite, and ePIC.

SND has also been represented in the CoreTrustSeal Assembly of Reviewers. The Swedish membership in the Inter-university Consortium for Political and Social Research (ICPSR) is administered by SND. Other international memberships are the International Federation of Data Organization (IFDO) and the World Data System (WDS).

The IASSIST 2022 Conference with the theme "Data by Design: Building a Sustainable Data Culture" took place in Gothenburg 7–10 June 2022. The conference was originally planned for May 2020, with SND as host, but had to be postponed several times due to the COVID-19 pandemic. The event gathered a total of over 400 participants, of which roughly 200 were on site.

Other projects

Skills4EOSC, a three-year project funded by Horizon Europe, was launched in September 2022. The project brings together expertise from national, regional, institutional, and thematic Open Science (OS) and Data Competence Centres from 18 European countries. The goal of of the project is to unify the current training landscape into a common and trusted pan-European ecosystem, in order to accelerate the upskilling of European researchers and data professionals in FAIR and Open Data, data-intensive science, and scientific data management.

SND leads work package 8, Synergies, stakeholder engagement, advocacy and communications, and takes part in several other work packages and tasks. Other Swedish participants and affiliated entities are Chalmers University of Technology, Karolinska Institutet, and Umeå University.

SND also participates in one of the science projects, Climate neutral and smart cities, which is part of the EOSC Future project. It will demonstrate how environmental data and data on citizens' values, attitudes, behaviours, and involvement can be combined for social, political, and scientific analysis.

Three major Horizon 2020 infrastructure projects in which SND participated were completed during the year. In April 2022, the cluster project SSHOC (Social Sciences & Humanities Open Cloud) came to an end. During the project's 40-month lifespan, SSHOC worked on transforming the data landscape of the social sciences and humanities into an integrated, cloud-based network of interconnected data infrastructures. Through the discovery portal

Members of the Skills4EOSC project at the kick-off meeting in Pisa on 21-22 September.

SSH Open Marketplace, resources for the research communities in the social sciences and humanities, such as tools, services, training materials, datasets, publications, and workflows, were pooled and contextualized. SND took part in two tasks, Data and Metadata Interoperability Hub and Certification Plan for SSHOC Repositories.

After being extended by three months, EOSC-Nordic ended in November 2022. The aim of the project was to facilitate the coordination of initiatives relevant to EOSC within the Nordic and Baltic countries, and to exploit synergies to achieve greater harmonization in policy and service provisioning, in compliance with EOSC-agreed standards and practices. Resources and information collected during the project can be found at the Knowledge Hub. SND participated in two work packages: FAIR data, and Open Research data and services – demonstrators.

The project ARIADNEplus ended in December 2022. The project has been successful in bringing together and integrating existing archaeological data infrastructures in and outside of Europe. During two funding periods, SND has provided expertise and knowledge and thereby contributed to the creation of the ARIADNE portal, the development of standards, best practices including "guides to good practice", and controlled vocabularies. SND will continue to participate in the created network of experts who strive to make national and international research data FAIR. The results of ARIADNEplus will live on in the ARIADNE Research Infrastructure AISBL.

SND participates in the Cost Action project SEADDA (Saving European Archaeology from the Digital Dark Age). The project brings together an interdisciplinary network of archaeologists and computer scientists to create publications and materials that will set a state-of-the-art standard for archaeological archiving across Europe.

Statistics

The SND research data catalogue has 1,827 searchable studies from a variety of research areas. In 2022, 87 new posts were added.

Users

SND has 2,548 registered users. There were 648 new registered users in 2022.

Catalogue page views

There were 122,634 views (or 104,006 unique views) of catalogue pages during 2022.

Downloaded material

Many studies in the SND catalogue are freely accessible to download. There were 59,076 direct downloads from the SND website in 2022.

Data requests

Many studies that are not accessible by direct download can be requested from the SND catalogue. In 2022, SND received 439 requests, resulting in the dissemination of 2,289 studies.

Collections

Studies that form part of a collection or series are among the most popular requests. The two series with the greatest number of data requests in 2022 were the National Society Opinion Media (SOM) surveys and the Swedish National Election Studies. The SVT Exit Poll Surveys and the Media Barometer were also popular.

+87
catalogue posts

59,076
direct downloads

122,634 views
(or 104,006 unique views)
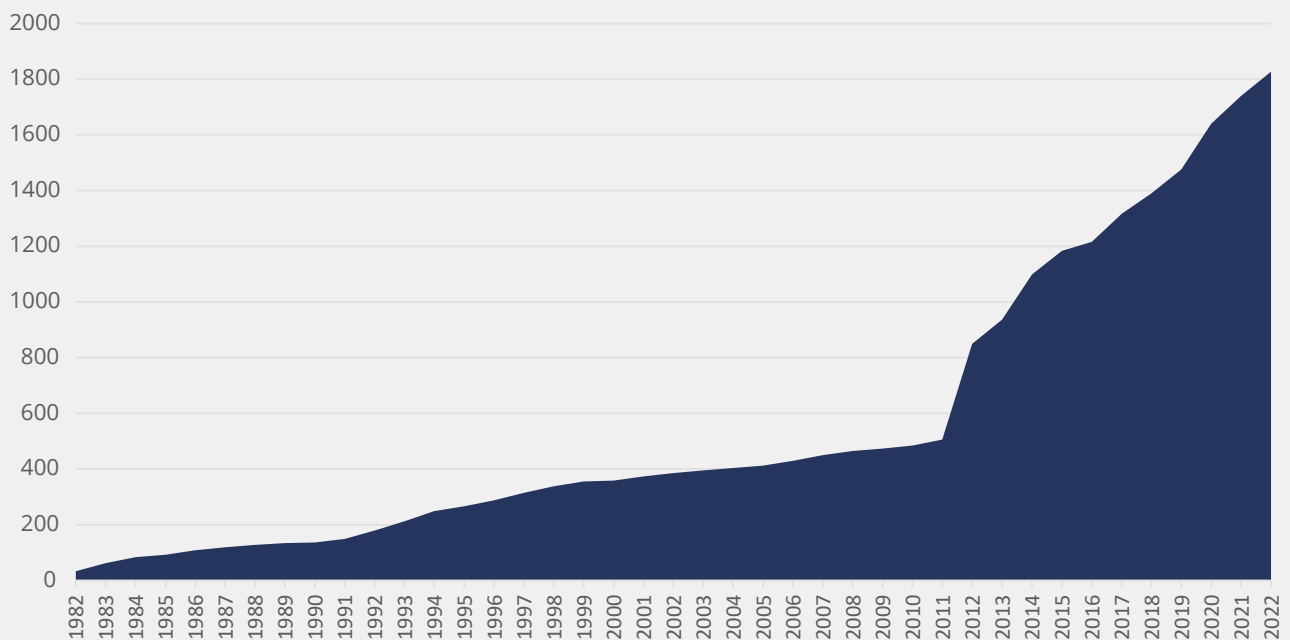**of catalogue pages**

+648
new users

Top 3 downloads

1 Snow ice particle microphysical properties and fall speed from particle images taken in Kiruna (Sweden) 2014–2018 – **42,961 downloads**

2 Dump truck object detection dataset including scale-models – **5,792 downloads**

3 The DREAM Dataset: Behavioural data from robot enhanced therapies for children with autism spectrum disorder – **1,506 downloads**

Top 3 requested collections

1 The National SOM Survey – **1,216 requests**

2 Swedish Election Studies - Parliamentary Elections – **349 requests**

3 SVT Exit Poll Surveys – **114 requests**

Number of catalogue posts 1982 - 2022

Economy

SND annual accounts 2022

Figures stated in thousand SEK

REVENUE	Results 2022	Budget 2022
Government grants	7,000	7,000
Revenue from services in the SND Network	1,690	1,690
Other sales	18	0
Co-funding of externally funded research	439	0
External research funding	15,334	16,050
Wage cost compensation from the SND Consortium	12,000	12,000
Exchange rate gains	3	0
Accruals	1,632	0
Depreciation coverage of grant-funded facilities	29	0
Total revenue	**38,145**	**36,740**

EXPENSES	Results 2022	Budget 2022
Salary costs	-20,095	-20,900
Salary costs for the SND Consortium	-12,000	-12,000
Holiday pay costs	334	-100
Travel and representation expenses	-425	-400
Purchase of services	-483	-710
Other staff costs	-461	-170
Other operating costs	-1,885	-1,790
University overhead costs	-2,886	-2,900
Co-funding of externally funded research	-107	0
Premises	-1,261	-1,230
Exchange rate losses	-6	0
Depreciation	-45	-80
Total expenses	**-39,320**	**-40,280**
Deficit/surplus for 2022	**-1,175**	**-3,540**
Opening balance 2022	**5,377**	
Ending balance 2022	**4,202**	

Staff

SND office

Administration and services

Director
Max Petzold

Administrator and
Language
Coordinator
Lisa Isaksson

Communications
Officer
Matilda Lindmark
(On leave)

Communications
Officer
Helena Rohdén

Financial Officer
Anna Maria
Eriksson

Legal Officer
Erica Schweder

Legal Officer
Anna Süpke

Legal Officer
Maria Skoglund

Senior Advisor
Iris Alfredsson

Senior Advisor
Birger Jerlehag

Repository and training

Deputy Director
Elisabeth
Strandhagen

Section Manager
Research Data
Services
Sara Svensson

Research Data
Advisor
Eira Brandby

Research Data
Advisor
Martin
Brandhagen

Research Data
Advisor
Joel Carlsten
Rosberg

Research Data
Advisor
Linda Härdelin
(On leave)

Research Data
Advisor
William Gothlin
Ilsley

Research Data
Advisor
Ulf Jakobsson

Research Data
Advisor
André Jernung

Research Data
Advisor
Rufus Latham

Research Data
Advisor
Dimitar Popovski

Research Data
Advisor
Arin Savran

Training
Coordinator
David Rayner

Training
Coordinator
Karin Westin
Tikkanen

Without picture:
Research Data Advisors Anneli Ambring and Ilze Lace.

IT and development

Head of IT
Johan Fihn
Marberg

Deputy head of
IT and System
Developer
Stefan Jakobsson

Acting IT
Architect, System
Developer
Pablo Millet

IT Architect
Olof Olsson

System Developer
Alireza Davoudian

System Developer
Hasse Lans

System Developer
Joakim Larsson

System Developer
Tobias Linde

Without picture:
IT Technician Alicia Rain Olsbänning
System Developer Fabian Samuelsson

Domain Specialists

Coordinator
Gustav Nilsonne
Karolinska
Institutet

Anna Axmon
Lund University

Anders
Brändström
Umeå University

Nicolo Dell'Unto
Lund University

Lars Eklund
Uppsala
University

Ulf Jansson
Stockholm
University

Marcus Lundberg
Uppsala
University

Anders Moberg
Stockholm
University

Karina Nilsson
Umeå University

Ida Taberman
Swedish
University of
Agricultural
Sciences

Without picture: Sudha Padmanabhan, MAX IV, Lund University

Ylva Toljander
Swedish
University of
Agricultural
Sciences

As well as Elisabeth Strandhagen and Iris Alfredsson, who are domain specialists at Univeristy of Gothenburg.

Steering Committee

Swedish National Data Service is governed by a consortium consisting of nine universities. The steering committee of SND is made up of representatives from each of these universities.

During 2022, the steering committee consisted of the following members:

Carina Mallard (Chair)
Deputy Vice-Chancellor and Professor, Institute of Neuroscience and Physiology, University of Gothenburg

Ann-Sofie Axelsson
Head of Department and Library Director, Chalmers University of Technology

Cecilia M. Björkdahl
Project Leader, Grants Office, Karolinska Institutet

Lars Burman
Chief Librarian, Uppsala University

Håkan Carlsson (from March)
Library Director, Lund University

Maria Haglund
Chief Librarian, KTH Royal Institute of Technology

Monica Lassi (until March)
Senior Data Governance Specialist, IKEA

Linda Vidlund
Chief Librarian, Swedish University of Agricultural Sciences

Wilhelm Widmark, Library Director, Stockholm University

Anders Wåhlin, Associate Professor and Director of Centre for Biomedical Engineering and Physics, Umeå University