2021-00165 Max Petzold	Beredningsgrupp: NATFI-RAGA

Utlysningsnamn: Bidrag till forskningsinfrastruktur av nationellt intresse 2021 (Vetenskapsrådet)	**Bidragsform:** Forskningsinfrastruktur
	Sökt inriktning: Infrastruktur av nationellt intresse
Projekttitel (svenska): Svensk nationell datatjänst (SND)	

Yttrande

National interest   3

1 - Weak/Insufficient, 2 - Good with weaknesses, 3 - Excellent

SND is a distributed research infrastructure funded by VR, and fulfills the criteria of national interest. It works towards uniform, controlled and long-term access, sharing, use and re-use of research data across all HE faculties and research domains. Its consortium consists of nine large universities of Sweden, but its support also caters to the need of smaller and/or younger universities and makes sure that the know-how of making data FAIR are distributed evenly and uniformly across Swedish HE.

Ethical considerations

Research data are usually stored by the local HE universities owning the data. Access to such archives, where sensitive data are included, needs to be delimited, and SND offers guidelines and routines to support HE DAU's in that respect. In cases where SND itself temporarily stores data, routines are in place to make sure storage and access meet e.g. GDPR requirements. Metadata within the planned platform researchdata.se will not include sensitive data.

Scientific impact   6

1 - Poor, 2 - Weak, 3 - Good, 4 - Very good, 5 - Very good to excellent, 6 - Excellent, 7 - Outstanding

SND is in essence an e-infrastructure, whose scientific impact is more indirect. As such, it aims to enhance FAIR and longterm sustainable data across all disciplines, through portal, catalogues, statistics and metadata of available data, and by offering researchers and HE DAU's training, courses, guidelines and best practices. SND also serves an important task by informing and training researchers and HE DAU's on Data Management Plans to enhance e.g. grant applications.

Access to open research data has long been a problem within most disciplines. Data from finished projects have been stored in inaccessible sites and formats, if preserved at all. Reversely, researchers in many disciplines do not know how and where to find open and re-usable data - and what knowledge there is, is spread unevenly across disciplines. SND's efforts serve to strengthen and advance Swedish research as a whole in this respect, and scientific impact can therefore be said to be at the core of the infrastructure: to increase the availability and reuse of scientific data by other groups than the data producers.

However, given that a few research fields have in fact already come a long way in FAIRifying data and have minor resources in place with a similar (although domain specific) aim as SND, the application could have presented more concrete plans for how to incorporate or at least collaborate with those resources.

Socio-economic impact   3

1 - Weak/Insufficient, 2 - Good with weaknesses, 3 - Excellent

Resources such as SND contributes to better use and re-use of the results of Swedish publicly funded research. It also answers to the needs of longterm and sustainability goals for society, both from an economic, environmental and scientific point of view. Making Swedish research more transparent and usable internationally also pertains to impact.

A well functioning and easy-to-use infrastructure for sharing and reusing research data has benefits for the whole society. Efficient reuse of research outputs can accelerate new research and create opportunities for innovations in both academia and industry, and this includes the analysis of medical and population data, as well as historical and social science data.

Implementation, leadership and organisation   6

1 - Poor, 2 - Weak, 3 - Good, 4 - Very good, 5 - Very good to excellent, 6 - Excellent, 7 - Outstanding

SND already has a trained and efficient organisation in place, and the application accounts convincingly for the feasibility of the plans for the years in the upcoming period. The implementation steps, the time plan and the four modules are distinct and well motivated.

Organisationally, SND has a steering committee in place (representing all consortium members) and a director leading the strategic development and the international coordination. The steering group is assisted by a research data support council and an infrastructure advisory group.

A risk analysis has been performed and risk measures are properly accessed and realistic, although the cooperation with other infrastructures and existing similar resources could have been dealt with more clearly, including how to develop or tailorize tools and training for different domains with highly different needs and skills.

Consortium

The consortium covers most HE's in Sweden, including 9 of the largest as well as more than 30 research centers and relevant organisations, thus sufficiently representing the Swedish research community. Researchers within the consortium use the services att no cost, whereas extra-consortium users cover fees for consultation etc. The research data are usually stored by each consortium member, whereas SND itself mainly stores metadata and a few older databases.

E-infrastructure   3

1 - Weak/Insufficient, 2 - Good with weaknesses, 3 - Excellent

SND is in itself already an e-infrastructure, and contributes to the e-infrastructure of Swedish research at a national level.

FAIR and sustainability principles are at the very core of SND. By helping out where skills and competence at local universities are not sufficient, SND serves to stabilize a national e-infrastructure. A good e-infrastructure also includes joint practices and guidelines, the development of standards, controlled vocabularies for data and metadata, and these aspects are also included in SND's tasks. SND cooperates with key actors such as CESSDA, RDA, SUNET, SNIC, SEAD and DiVA.

It has a data policy and plan for data management in place and its technical solutions for e-infrastructure are appropriate.

Prioritisation between modules/functionalities

The application accounts for four modules, where each one must be considered core and is necessary for running and developing the infrastructure.

Overall grade and final comment   6

1 - Poor, 2 - Weak, 3 - Good, 4 - Very good, 5 - Very good to excellent, 6 - Excellent, 7 - Outstanding

SND is a well-functioning infrastructure, and the further development described in the application (mainly the new national portal for research data as well as intensified international cooperation) are justified and make good sense as next steps during the upcoming years towards an even more comprehensive resource for research and society. Costs for a planned regional office in the Stockholm-Uppsala area were however not sufficiently motivated in the application nor in the follow-up communication, and should be deleted from the budget.

Researchers and HE's meet increasing demands on transparent, open, FAIR, and long-term accessible data, and SND is the national common resource to help them meet these demands and to know what data can (and cannot) be shared.

Further, SND is a national service provider for CESSDA and collaborates with several international networks and associations within archiving and FAIRifying research (the membership fee in EOSC should however be covered by the University of Gothenburg). This commitment serves to harmonize and open Swedish research internationally, and vice versa.

A minor weakness in the application is that it is not entirely clear how SND intends to include or co- or interoperate with already existing similar but local resources within the fields of e.g. medical imaging, -omics, astronomy and earth sciences.