Guidelines for management of research data at Nord University

1. Objectives and purposes

The purpose of the guidelines is to ensure good management and sharing of research data at Nord University.

Nord University adheres to the Ministry of Education¹, the Research Council of Norway² and EU³ principles for sharing research data – 'As open as possible, as closed as necessary' and 'Open as standard'. The general rule is that all research data should be made openly available. Exceptions to the rule apply when concerns like security, privacy protection, commercial or legal issues, require access restrictions.

Nord University supports the FAIR principles for proper management of research data⁴. The international FAIR principles have been developed as a set of guidelines to facilitate reuse of research data. FAIR is an acronym for *findable*, *accessible*, *interoperable* and *reusable*. In other words, research data must have a level of quality that makes them digitally accessible, discoverable and reusable. Furthermore, the concept of interoperability presupposes that both data and metadata are machine-readable and that consistent vocabulary is used.

2. Ownership of research data

As a general rule, Nord University has ownership of all research data generated by its employees, in accordance with the <u>Regulations governing the management of intellectual property at Nord</u> <u>University</u>. This also applies to PhD students and researchers employed in temporary positions.

As a general rule, Nord University does not have ownership of students' research data, except when the student is employed by Nord University (PhD students), or when this is specifically stated in the agreement between the student and the university. This also applies to exchange students and guest researchers.

As a general rule, Nord University should have access to use all research data generated at the institution.

In research projects that are partially or fully financed by a third party, ownership and rights to the use of data and research results must be regulated by contract.

3. Definitions and delimitations

The principles and guidelines in this policy apply to all research conducted by Nord University employees, as well as in cases when the research is fully or partially funded by Nord University and this has been agreed upon.

¹ National strategy on access to and sharing of research data

² The Research Council of Norway: Open Science

³ <u>Guidelines to the rules on open access to scientific publications and open access to research data in Horizon</u> 2020

⁴ FAIR principles

Research data entails any registries, records and reports in the form of numbers, texts, images and audio that are generated or occur during the research process and that are considered to be scientifically interesting and/or have scientific potential.

A *research project* entails research work that is carried out by means of scientific methodology with the aim of generating new knowledge in a field of study. A research project is often limited in terms of time and resources, has a project manager and a limited number of participants. Research projects may consist of several sub-projects and have different sources of funding.

Storage and archiving are defined as:

• Storage: short-term storage of data that are being processed (working data).

• *Archiving*: long-term storage of data that have already been analysed and used in a research project. Here, a distinction is made between the archiving of sensitive data that must be closed (exceptions to the general rule, see above) and archiving of data that may be made openly available.

Openly accessible research data entail data that are made openly available to everyone. Access to the data should be simple, user-friendly and Internet-based.

Metadata is defined here as data that defines or describes other data.

4. Responsibilities of Nord University

4.1 Nord University shall provide secure basic services for management, storage and archiving of research data.

4.1.1 Basic services shall either be hosted centrally at the institution or in other suitable quality-assured infrastructures for storing and/or archiving data.

4.1.2 Nord University shall provide employees with training and support for using such services.

4.2 Nord University shall provide guidance and support for the development of data management plans (DMPS) and procedures for the approval of such plans.

4.3 Nord University shall offer the research data archive **Nord Open Research Data** for data that may be made openly available. When appropriate, research data may also be archived in another reliable external repository.

4.4 Nord University shall provide training and support for researchers so that they can archive and make their data openly available in **Nord Open Research Data** or in another reliable external research data repository.

4.5 All training, support and guidance Nord University offers for the management of research data shall reflect best practice in the field.

5. Guidelines

5.1 The project manager is responsible for the management of research data in a project.

5.1.1 For research that is not part of a project, the employee conducting the research is responsible for ensuring that research data is managed in accordance with the guidelines.

5.2 Research data shall be accompanied by a Data Management Plan (DMP).

5.2.1 The plan shall describe how research data shall be managed during and after the project has ended.

5.2.2 The plan shall be developed early in the project and no later than six months after project start-up.

5.2.3 The data management plan shall be revised as required during the project.

5.3 The researcher shall ensure that research data is stored and archived in a secure manner.

5.3.1 The data shall be stored either at the institution or in other suitable and reliable archives, ensuring Nord University's continuous access to the data.

5.3.2 The data must be stored for a minimum of 10 years.

5.4 As a general rule, the researcher shall make research data openly available for further use by all relevant users.

5.4.1 Exceptions to the rule

There are several challenges concerning making certain datasets open. Reasons for restricting their availability may be:

- Security concerns: In cases where making the data available may threaten the security of individuals or national security, the data **shall not** be made openly available.
- Confidentiality of personal data: In cases where making the data available is in violation of current regulations concerning personal data, the data sets **shall not** be made openly available.
- Other legal matters: In cases where making the data available infringes other legal provisions, the data sets **shall not** be made openly available.
- Commercial matters: Data that have commercial value and are generated in projects with a company **may** be exempted from the general principle of open access. In these cases, it is recommended that the data are made available after a certain period of time, preferably after 3 or 5 years.
- Other circumstances: In cases where making the data available has major financial or practical consequences for those who have generated/collected the data, the data sets **may** be exempted from the general principle of open access, if this is satisfactorily substantiated.

5.5 Research data shall be made available as early as possible.

5.5.1 Data providing the basis for scientific articles shall be made available no later than at the time of publication.

5.5.2 Other data that may be of interest to other research projects should be made available within a reasonable period of time, and never later than three years after the completion of the project.

5.6 Research data shall be accompanied by standardized metadata.

5.6.1 Metadata shall enable others to search for and use the data.

5.6.2 The metadata shall comply with international standards where these exist.

5.6.3 Research data that cannot be made openly available shall also be accompanied by metadata.

5.7 Research data shall be accompanied by licenses for access, reuse and re-distribution.

5.7.1 Licenses should be internationally recognized.

5.7.2 Licenses should place as few restrictions as possible on access, reuse and re-distribution of the data, such as <u>Creative Commons licenses</u>.

5.8 Students and their supervisors shall ensure that the management of research data is planned and documented at the beginning of a research project in the form of a data management plan.

5.9 Supervisors have primary responsibility for ensuring that research data funded by Nord University or a third party are handed over to them when students finish their studies at Nord University.

6. Affiliation with other guidelines, strategies and processes at Nord University

The guidelines for management of research data at Nord University are affiliated with the following guidelines and strategies:

- <u>Regulations governing the management of intellectual property at Nord University</u>
- <u>Forskrift for graden philosophiae doctor (ph.d.) ved Nord universitet</u> (Regulations concerning the degree Philosophie Doctor (PhD) at Nord University, in Norwegian only)
- <u>Forskrift om graden doctor philosophiae (dr. philos) ved Nord universitet</u> (Regulations concerning the degree Doctor Philosophiae (Dr Philos) at Nord University, in Norwegian only)
- <u>Informasjonssikkerhet og forskningsdata</u> (Data security and research data, in Norwegian only)
- <u>Forskningsetiske retningslinjer for Nord universitet</u> (Guidelines for research ethics at Nord University, in Norwegian only)
- <u>Kvalitetssikringssystem for etikk og personvern</u> (Quality assurance system for ethics and privacy protection, in Norwegian only)
- <u>Ansvarsforhold i et forskningsprosjekt</u> (Responsibilities in research projects, in Norwegian only)
- Open Access policy for Nord University
- <u>Delstrategi digitalisering 2018</u> (Digitalisation strategy 2018, in Norwegian only)
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The guidelines will be evaluated and updated as required. This is to ensure that at all times they are up to date based on experience and new technological solutions, and that they comply with changes in national and international standards and guidelines.