

Open Science Policy, Open Research Data, and Data Management Plans

The National Research, Development and Innovation Office (NRDIO) has actively been supporting open science since 2018. Open access to publications from NRDIO-funded projects is now mandatory. The next step in the development of open science is to make research data publicly available, which benefits science by increasing data use and promoting transparency and accountability. NRDIO embraces the FAIR data principles, which call for research data to be findable, accessible, interoperable, and reusable. This includes persistent identification, description using rich metadata, storage for easy access, structure for data combination, and licensing terms for use.

However, not all data can or should be preserved in the long term. In some cases, only derived data products can be archived, however, the metadata should remain FAIR. Data management plans should include detailed criteria for prioritising, appraising and selecting data for preservation. In cases where data raise privacy or security concerns, controls and restrictions on access may be necessary. Researchers need to consider, describe and make available their research data for the benefit of science and society.

Legal aspects of data protection, including relevant national regulations and the EU General Data Protection Regulation, must be taken into account in the implementation of the research project and in dissemination of its results.

The data management plan may change during the course of the project as it is directly linked to the research plan. Therefore, the plan outlined in the proposal will be compared with the actions taken to implement it. If changes to the content of the project are justified, changes to the format or size of the data will also be justified. It is important for the NRDIO that the data are properly archived in accordance with the FAIR principles (manual or automated access must be guaranteed), and that they are made publicly available under what conditions.

NRDIO requirements

Applicants for each NRDIO project that generates research data must submit a Data Management Plan (DMP), deposit their data in a repository, and provide open access to the data, including associated metadata, for validation in publications. The DMP describes how a proposal will follow NRDIO's policy on the management, dissemination and sharing of research results. NRDIO-funded researchers are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the primary data, samples, physical collections; and other supporting materials created or collected in the course of work under NRDIO grants.

The preparation of a DMP should not be seen as a purely administrative exercise. Rather, it should provide a positive stimulus for thinking about how the data generated by a project will be stored, managed, protected, and where appropriate shared for reuse. It should be part of the research process from the outset. As a project progresses, type and volume of data generated may change. It is, therefore, useful to think of a DMP as a dynamic framework that should be maintained and modified as research progresses. Planning for submission early in the research cycle will facilitate the publication process. Good data management saves time, protects information, and increases the visibility and impact of research results.