

National strategy on access to and sharing of research data



Summary

1 Research data should be shared and reused more widely

The digital transformation is bringing change to the world of research. Work processes are being redesigned and new ways of improving research quality and increasing knowledge-intensive value creation are emerging. More open access to, and wider reuse of, research data promotes scientific advancement in that it equips individual researchers with a larger pool of data, facilitates replication and quality assurance of previous research findings, and prevents re-funding of the same type of data collection multiple times. A stronger culture of sharing enables students to work with interesting, relevant data and to contribute to research as well. Better access to research data can boost innovation and value creation by enabling actors outside the research community to find new areas of application. It can contribute to smarter service development in the public sector, new opportunities for business activity and expanded job creation. Another benefit that is important in its own right is that greater transparency and insight into research can help to increase confidence in researchers and research findings.

In order to make research data more available and increase reuse, researchers need the competence and tools to manage data in a sound, secure manner throughout all steps of the research process. They must to be able to find – and obtain access to – relevant data among the existing sources. They must have the infrastructure needed for collecting, analysing, archiving and sharing data, as well as access to clear information about this infrastructure. The infrastructure in place must lay a foundation for cooperation and knowledge-sharing that extends across countries and sectors. It should be easy for international researchers to find Norwegian data sets. User groups in the business or public sectors will have some needs that coincide with the needs of researchers. In order to achieve a strong culture of openness combined with essential security safeguards, for instance with regard to protection of personal data, it is important to direct adequate resources and attention towards ethical, legal and administrative considerations as well as the technical aspects of data management.

This strategy will enhance research quality and increase knowledge-intensive value-creation by establishing basic principles for the management and curation

of publicly funded research data, by clarifying what is expected of research institutions, and by presenting measures that create a better foundation for building on previous research efforts and compiling research data in new ways.

In Part I, the strategy deals with increased accessibility to and reuse of publicly funded research data. It describes the state of affairs on which the policy is based and the current situation at the research institutions. Three basic principles relating to the accessibility and sharing of research data are set out. The most important barriers to access and reuse of research data and measures to resolve these are described. The needs for a change in the underlying culture, increased competence, data management plans, better technical infrastructure, improved national coordination among subject fields and sustainable funding models are addressed.

Part II of the strategy deals with researchers' access to public data that comprise an important source of data for research purposes. The issue is discussed at a general level with special focus on two key areas. The first concerns researcher access to registry data under Statistics Norway. The second involves researcher access to data from health registries, biobanks and health surveys.

This strategy does not cover research data from privately funded research and development activity. According to the basic principles (see Section 3), in cases where private actors are granted public funding for research or cooperate with public research institutes, universities, university colleges or hospitals on research and innovation projects that are publicly funded, it is possible to restrict access to data to protect trade secrets or when this is necessary in connection with commercialisation of results. There may nonetheless be circumstances in which private actors find it desirable to share their data. Considerations relating to efficiency and replicability will also be pertinent for private actors, who may find it constructive to spread their risk by collaborating on investments in the data to be shared, and competing for the use of the data rather than for access to it. It will be up to private actors to assess this from case to case. The strategy's principles, instruments and follow-up may thus be of relevance to private actors as well. Instruments such as information, standards and tools for open data may be made freely available and may also be of interest to private actors. Last, but not least, it is of benefit to the business sector that publicly funded research data are more openly available, that research results are as solid as possible, and that public research funding is used efficiently.

The strategy is part of the follow-up to Meld. St. 27 (2015–2016), *Digital agenda for Norway – ICT for a simpler everyday life and increased productivity* (abridged version available in English). In the aim of increasing accessibility to open, public data, the Storting decided that strategies or action plans should be drawn up for the following five socio-economically valuable sectors: culture, public expenditure, transport and communications, maps and property (geodata) and research.

Developments are taking place at a rapid pace and there is still much to learn about how increased digitalisation and data sharing will affect research and the conditions underlying it. This strategy therefore applies for the period from 2018 to 2021. It will then be evaluated appropriately before being re-approved in keeping with new experience and understanding.

This English translation includes the summary of the basic principles, general expectations and measures set out in the strategy. More detailed discussion and clarification is provided in the subsequent sections of the strategy, which have not been translated.

What does "publicly funded research data" mean?

In this strategy, publicly funded research data refers to:

- (i) data collected or generated for use for or as a result of publicly funded research, and
- (ii) data underpinning publications that are the result of publicly funded research, regardless of the source of the data.

Figure 1 Data life cycle in research

