

Open Science Policy

The Department of Business & Management (DBM) wishes to ensure the widest possible access to its research. The value and utility of research outputs increase the more available they are for consideration and use by other scholars globally, by the public and private sector and by society in general. Wider access to DBM's research will also help to highlight its quality and relevance, attract scholars and students, foster collaboration, enhance public engagement and maximise its intellectual, social, cultural and economic impact.

Open Science (or more generally, Scholarship) is about increasing the visibility, transparency, accountability and re-usability of research, and making sure that publicly-funded research is as accessible as possible. Originating in the natural, medical and technical sciences, Open Science has been centred on notions of Open Data, Open Source, Open Methodology, Open Peer Review, citizen science, scientific social networks and Open Access. There are a number of components which are required to enable Open Science: appropriate planning and management of research projects (including the full data lifecycle), publication (including Open Access) and communication; these requirements place responsibilities on individual researchers, DBM as a department and SDU itself.

Researchers' responsibilities

First and foremost, all staff, students, visiting researchers, honorary and adjunct role-holders undertaking or supporting research at all SDU locations and external research sites must ensure that their scholarly activities comply with *The Danish Code of Conduct for Research Integrity* (2014)¹ and SDU's *Regulations for dealing with scientific misconduct and questionable research practices* (2019)². Colleagues new to academia are introduced to these principles as part of their on-boarding process, while existing staff are expected to keep abreast of changing legislation. Support and advice on the responsible conduct of research are available from SDU Library colleagues³.

All researchers should obtain an SDU-linked ORCID⁴ (Open Researcher and Contributor ID) unique author identifier with verified affiliation and use it at every possible opportunity including when submitting publications, applying for grants and in any research workflow, to ensure that they are credited for every citation of their work.

DBM expects colleagues to share and communicate their research (including data) as widely as possible, in accordance with SDU's *Open Science Policy*⁵, current legal, ethical and contractual constraints and best practice within the discipline.

Open Science emphasizes the importance of data (quantitative and qualitative, raw and analysed, interviews, recordings, along with analytical methods, procedures and coding) which is the object and subject of scholarship. The importance and value of such data is reflected in the requirement for a management plan describing its acquisition, storage, analysis, retention and disposal for every research project. A number of online tools⁶ are available to support the creation of data management plans which are increasingly required by funding bodies who typically provide appropriate templates. SDU Library's

¹ See <https://ufm.dk/publikationer/2014/the-danish-code-of-conduct-for-research-integrity> (retrieved 28/02/23)

² See https://www.sdu.dk/-/media/files/om_sdu/faellesadministrationen/rektorsekretariatet/juridisk+kontor/regelsaet_eng.pdf (retrieved 28/02/23)

³ <https://www.sdu.dk/en/bibliotek/forskere/responsibleconduct> (retrieved 28/02/23)

⁴ <https://sdunet.dk/en/research/scholarly-publication/orcid> (retrieved 28/02/23)

⁵ <https://www.sdu.dk/-/media/files/bibliotek/sdu+open+science+policy-09032018.pdf> (retrieved 28/02/23)

⁶ For instance <https://dmponline.deic.dk/> and <http://www.dcc.ac.uk/resources/data-management-plans> (retrieved 28/02/23)

Research Data Management support team⁷ assists with all aspects of the organisation, management and curation of research data to enhance its preservation and access now and into the future.

Research project data management plans should focus on ensuring that data is **F**indable, **A**ccessible, **I**nteroperable and **R**eusable⁸; using common formats and providing sufficient metadata to enable results to be recreated and verified and the data to be incorporated into other studies. DBM is committed to practicing and promoting data handling in line with the FAIR principles, and therefore supports the *Sorbonne Declaration*⁹ on research data rights. As a minimum and in the case of sensitive data, researchers should provide an overview of the project and metadata along with their contact information¹⁰. It should be noted that negative results which contradict a given hypothesis can also be valuable and should be made available where possible to inform or augment the work of others.

In compliance with the EU's *General Data Protection Regulation*¹¹ researchers should note that they are required to register projects which involve the processing of data identifying individual persons with SDU's Research & Innovation Organisation (RIO)¹². RIO can also advise on appropriate contractual arrangements with external partners, non-disclosure agreements, intellectual property rights and patents.

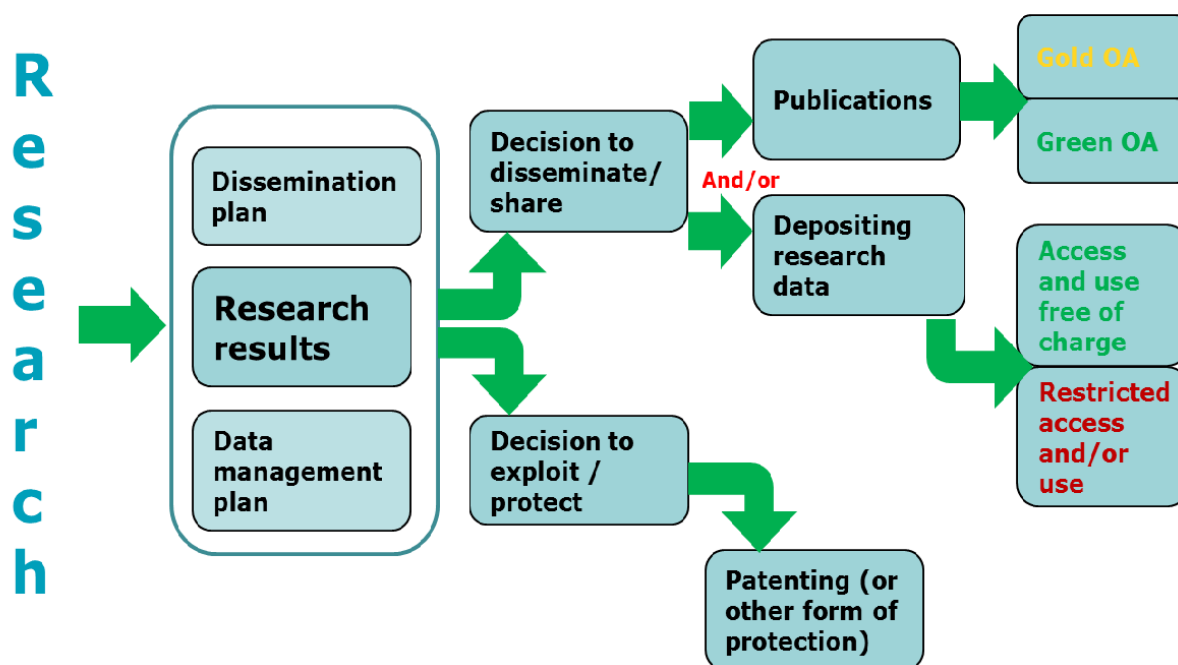


Figure 1. Research project dissemination decision diagram (after EU H2020 Open Access Guidelines).

⁷ <https://www.sdu.dk/en/bibliotek/forskere/research+data+management+support> (retrieved 28/02/23)

⁸ For more information on the FAIR data principles see <https://www.nature.com/articles/sdata201618> and <https://www.force11.org/group/fairgroup/fairprinciples> (retrieved 28/02/23)

⁹ See <https://www.leru.org/files/Sorbonne-declaration.pdf> (retrieved 28/02/23)

¹⁰ Anyone interested in any aspect of IMM's research output should be able to contact the researcher responsible who will provide copies of publications and data as appropriate. In the absence of an SDU data repository a number of alternatives are available including Zenodo (<https://zenodo.org/>) and SSOAR (<https://www.gesis.org/en/ssoar/home/>) (retrieved 28/02/23).

¹¹ See https://ec.europa.eu/info/law/law-topic/data-protection_en (retrieved 28/02/23)

¹² See https://www.sdu.dk/en/forskning/service_til_forskere/juridiske_spoergsmaal/anmeldelse_til_datatilsynet (retrieved 28/02/23) for further details and a link to the form to be completed.

Data, research outputs and process descriptions should be retained for a minimum of five years after the conclusion of a project; before deletion they should be offered to the Danish National Archives¹³.

Colleagues are encouraged to publish the findings of their research in journals¹⁴ which support Open Access¹⁵ (for example *Green Open Access*¹⁶ which permits open archiving in SDU's institutional repository Pure¹⁷ of the author's post-print version). Combined with a strong reputation and high-impact factor.

Checklist

1. Obtain and use an open ORCID, registered in your Pure profile
2. Create and maintain a data management plan for each research project
3. Register projects which will involve processing personal data with SDU RIO
4. Ensure research output (both data and publications) is as openly accessible as possible

DBM's responsibilities

The Department recognises the goal of providing open and free access to all research outputs. In the course of the regular updating of the information held in SDU's institutional repository (Pure) DBM's Secretariat will ensure that all research outputs have as much public access as possible.

While each Supervisor/Principal Investigator is responsible for ensuring that an appropriate data management plan exists for each of her/his projects and that all outputs¹⁸ are made as widely available as possible, Research Unit Heads are expected to have oversight of these activities within their group as part of the management of the Unit's research portfolio.

When staff leave the Department it is the responsibility of the staff member together with their Research Unit head to ensure that data for which they are responsible are managed appropriately with export, transfer of ownership, archiving or deletion depending on the nature of the data and the status of individual projects.

The Department supports the principles of the *San Francisco Declaration on Research Assessment* (DORA)¹⁹, namely the responsible use of appropriate metrics in the evaluation of scholarly output that align with core academic values and promote consistency and transparency in decision-making.

SDU's responsibilities

In accordance with its *Open Science Policy*²⁰ SDU undertakes to provide appropriate services, policies, support and consultancy to facilitate best practice in Open Science and is committed to offering data storage facilities and a research data catalogue.

¹³ <https://www.sa.dk/da/forskning-rigsarkivet/anmeldelse-aflevering-forskningsdata/> (in Danish, retrieved 28/02/23) especially in the case of sensitive and confidential (personal) data; non-personal data should also be offered to the National Archives if they are unique. The National Archives are not under obligation to accept all data – alternatives include local or research community repository solutions. Personal data should be deleted or anonymised at the end of the project.

¹⁴ Journal policies can be found via <http://www.sherpa.ac.uk/romeo/index.php> (retrieved 28/02/23)

¹⁵ <https://sdunet.dk/en/research/scholarly-publication/open-access> (retrieved 28/02/23)

¹⁶ <https://www.sdu.dk/-/media/files/bibliotek/pure/quick+guide+to+green+open+access.pdf> (retrieved 28/02/23)

¹⁷ <https://sdunet.dk/en/research/scholarly-publication/pure> (retrieved 28/02/23)

¹⁸ <https://www.sdu.dk/en/forskning/forskningspublicering> (retrieved 28/02/23)

¹⁹ See <https://sfedora.org/> (retrieved 28/02/23)

²⁰ <https://www.sdu.dk/-/media/files/bibliotek/sdu+open+science+policy-09032018.pdf> (retrieved 28/02/23)