

Research Data Management

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What is Research Data Management?

Research Data Management (RDM) is a general term covering how you organize, structure, store and care for the information used or generated during a research project.

It includes **how you deal with information on a day-to-day basis** over the lifetime of a project as well as **what happens to data in the longer term** - what you do with it after the project concludes.



Why should you manage your data?

- Reduce risk of data loss,
- Improve research processes and continuity of work,
- Facilitate sharing and re-use of research data for future research (within a research group or with the whole scientific community to deliver best value for (funding) money).



Why should you share your data?

- Improves research integrity and validation and reproducibility of results
(RCUK principles on data: “*published results should always include information on how to access the supporting data*”),
- Enhances visibility of all your research outputs and increases citations,
- Provides opportunities for collaboration,
- Enables compliance with funders and journal policies
(e.g. RCUK principle “*Data should be made openly available with as few restrictions as possible in a timely and responsible manner.*”).



Where to start? -

Data Management Plans

- A data management plan (DMP) is a document that describes how data will be collected, organised, managed, stored, secured, backed-up, preserved, and where applicable, shared.



Key points of a DMP

What? Are your data and how are they documented?

Why? Do you need to manage and share them?

Where? Will you store them?

When? For how long do you need to keep them?

Who? Can access the data and under which conditions?



Funder expectations

□ NERC:

- **DMP**: outline DMP upon application, full DMP three months into the project.
- **Costs**: resources needed to implement the DMP must be identified in the application.
- **Data deposit**: Data should be shared through one of the NERC data centres.



Funder expectations

□ BBSRC:

- **DMP:** 1 page DMP required upon application
- **Data deposit:** Data should be released in a timely and responsible manner, no later than the publication of main findings or within three years of data generation.



Funder expectations

□ EPSRC

- **DMP:** No DMP required upon application, but EPSRC expects one to be in place.
- **Data deposit:** Metadata describing research data needs to be published within 12 months of data generation. Research data should be published no later than the publication of findings.



Funder expectations

□ ESRC:

- **DMP:** A DMP of max. 3 pages is required.
- **Costs:** funding will be provided if costs have been included in the DMP.
- **Data deposit:** Data should be made available through the ESRC data service providers (UK Data Service) or an appropriate repository within 3 months of the end of the grant.



Funder expectations

- Wellcome Trust:
 - **DMP**: required as part of the application.
 - **Costs**: Resources for data management can be requested.
 - **Data deposit**: Data should, if possible, be made available at the same time as the findings are published.
- Leverhulme Trust: no formal data policy



Referee feedback

“Such testing requires a plan for archiving and accessing experimental findings”

“Without adequate DMP in place at the very start of these large, multidisciplinary projects, data transfers among working groups can be constrained”

“I would urge the applicant to give further thought to planning their data management and model tests”

“[projects] in which data archiving was planned in advance of field operations have enabled important advances in model development and testing”



Institutional expectations

- UoB Research Data Management Policy; new version approved in January 2017
- Code of Practice for Research
- UoB Data Protection Policy



UoB support services

- DMPOnline: <https://dmponline.dcc.ac.uk/>
- Browser based tool, providing
 - DMP templates for all RCUK funders, H2020, Wellcome Trust and CRUK,
 - DCC guidance on best practice DMPs and, if available, funder specific guidance,
 - Collaboration and export functions,
 - links to UoB specific guidance and standard answers if you use UoB services for storage or data publication.



UoB IT Support for storage and backup

- BEAR Data Share – Dropbox-like solution which allows you to share data internally or externally. Currently 20 GB FREE.
- Research Data Store – is where you can store up to 3TB FREE for working data for up to 5 years. If you require more space, contact IT Services.
- Research Data Archive – is where you can store data underpinning your publication.



Further questions?

- Library Services intranet pages on Research Data Management:
<http://intranet.birmingham.ac.uk/rdm>
- Online training:
<https://canvas.bham.ac.uk/enroll/CHEEPR>
- Contact email: research-data@contacts.bham.ac.uk

