

Guidance on UoB-provided storage for inclusion in Data Management Plans

The following can be used to add into your Data Management Plans, which can be included in your grant proposals.

BEAR

The Birmingham Environment for Academic Research (BEAR) is a collection of complementary IT resources managed by [Advanced Research Computing](#). These services are designed to help research and are free at the point of use for all bar those with exceptional needs. The development and operation of all BEAR services is overseen and governed by the [Research Computing Management Committee](#).

Data Storage

The working data will be stored on University of Birmingham (UoB) storage (BEAR Research Data Store), accessed via network shares mounted on the computers of the Principal Investigator (PI), Co-PI's and other researchers. Backups are made overnight from the Research Data Store (RDS) and any files that are created or changed that day will be backed up. Backups are also copied to a second location for disaster recovery purposes¹. Access to the data is restricted to those who have been granted access to the project by the PI and they must have a UoB username and password, which can be provided for collaborating researchers. Data can only be accessed off campus through use of the 2-factor authentication remote access service (VPN). Data storage of up to 5TB is provided free of charge.

Data Sharing

For data sharing between project participants (without the need for a UoB username and password), the UoB provides its researchers with access to the Microsoft 365 applications OneDrive and MS Teams, which allow UoB research staff and postgraduate research students to securely share files with external collaborators and sync data (up to 50GB for OneDrive) between different devices. Researchers can share a link with external users who can then upload using MS Teams, if given appropriate permissions. MS Teams/OneDrive is provided free of charge for UoB researchers.

If there is a requirement to share large data sets (up to tens or even hundreds of TB), then the BEAR Data Transfer Service can be used to transfer data quickly to and from the Research Data Store. The data transfer is controlled using the Globus web service, which automatically manages background data transfers, with integrity checks to ensure successful transfer of the data. Globus is used in a number of large international scientific organisations, for example ORNL, CERN, Sanger, Crick, EPCC's RDF and so is well suited for large inter-institutional data transfers.

For the sharing of data with the general public, data that underpins published work will be deposited in trusted digital repositories. To that end, UoB uses PURE which is the UoB's research information and management system; this gathers research outputs and data in a central database. PURE is designed to store and integrate information on research activity in a structured and standardised way. When research data (small files) is uploaded to PURE, the associated metadata is created automatically and PURE can

¹ Backup & Retention Policy for the Research Data Store is available here:
<https://www.birmingham.ac.uk/research/arc/policies/rds-backup-retention-policy>

act as a repository for smaller data files (an example being text files that contain numerical information). Members of academic staff and research students have PURE accounts and can update and add to their research profiles.

When a paper is published as a result of this research, the data that underpins it can be stored securely in the University's data repository (UBIRA eData) for 10 years (if this is not already done so within an external trusted digital repository such as a funders or journal repository). Discovery of the data will be enabled when the data location is added to the UBIRA system; this will be done via the web portal (<http://edata.bham.ac.uk>), which in turn is indexed by Internet search engines, thus making it public.

Timeframes for data release

In adherence to UKRI's guidelines, all publicly disseminated content will be made freely accessible, and the University of Birmingham (UoB) will disclose all foundational data concurrent with publication. This disclosure may occur either when a journal releases a pre-print of a paper online or when UoB independently publishes the work. There is no obligatory imposition of a specific embargo period by UoB for the release of such data unless otherwise specified. The Principal Investigator (PI) will ensure that the data is presented in a non-proprietary, open format at the time of release. However, UoB acknowledges the potential generation of intellectual property during the research project. In such cases, the data may be subject to embargo for a duration deemed necessary.

Data status and retention periods

Project data stored on the Research Data Store (RDS) can exist in one of two states used by the backup system to manage retention periods. Data need to have been stored on the RDS for 24 hours before any status is applied.

Active

Any data stored in the RDS, is classified as active and will be kept for the full life of the project. The latest copy will be stored by the backup system, in case of a system disaster.

Inactive

Any data that has been deleted from the RDS, will be marked as inactive by the backup system. It will be recoverable for up to 90 days, after which it is purged from the system.

Data Archive

At the end of a Project's life any Active data stored on the RDS will be archived in the secure UoB BEAR Archive, in accordance with University of Birmingham research governance processes. It will be archived for 10 years, in line with the UoB Research Data Management Policy² and will only be accessible upon an application for restoration by an appropriate person such as the PI.

Data Disposal

² UoB Research Data Management Policy is available here:
<https://intranet.birmingham.ac.uk/student/libraries/research/rdm/policies/research-data-management-policy.aspx>

The PI will be responsible for deleting the data from the BEAR RDS, acknowledging the 90 day backup retention period. If the data has been archived, then it will be disposed of from the BEAR Archive after 10 years (see the Backup & Retention Policy³).

ARC do not offer any proof of deletion certificates.

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<https://www.birmingham.ac.uk/research/arc/policies/rds-backup-retention-policy>