

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 3TB 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 100GB for OneDrive) between different devices. External users (non-UoB) of MS Teams and through OneDrive if a folder link is shared can also upload data if given appropriate permissions. MS Teams/OneDrive is provided free of charge for UoB researchers and their collaborators.

If there is a requirement to share large multi-GB to TB data sets, then the BEAR 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 to be completed, 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, Archer (RDF) and so is well suited for large inter-institutional data transfers.

For the sharing of data with the general public, experimental 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

¹ Backup & Retention Policy for the Research Data Store is available here: <https://intranet.birmingham.ac.uk/it/teams/infrastructure/research/bear/research-data-service/RDS/BackupRetentionPolicy.aspx>

integrate information on research activity in a structured and standardised way. When research data is uploaded to PURE, the associated metadata is created automatically and PURE can act as a repository for smaller data files (an example being text files that contain numerical information). Members of academic staff have PURE accounts and can update and add to their research profiles; supervisors can perform the same function on behalf of their research students.

When a paper is published as a result of this research, the data that underpins it will be stored securely in the University's data repository (UBIRA eData) for at least 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 scoured by Google thus making it public. There is a workflow in place on how the data can be accessed.

Timeframes for data release

The UoB pledges to release all experimental data that underpins published work. In compliance with RCUK's policies, all published work will be open access and UoB will release all underpinning experimental data at the point of publication. This will either be at the time a journal publishes a pre-print of a paper online or at which time UoB publishes work itself; otherwise, there is no requirement for the UoB to set a specific embargo period on the release of such data. The PI will ensure that the experimental data is in a non-proprietary, open format at the point of release. However, UoB acknowledges that some intellectual property may be generated during the course of the research project; in this instance, the data may be embargoed for such time as deemed necessary.

Data Archive

Data which is associated with the research project but which is not used to support a publication will be archived in the secure UoB BEAR Archive, in accordance to University of Birmingham research governance processes. It will be archived for a period of time in line with the UoB Research Data Management Policy² (with the minimum period agreed at the point of archiving with the PI) and will only be accessible upon an application for restoration by an appropriate person such as the PI.

Data Disposal

The data will then be disposed of from the UoB Shared drives after the appropriate retention time, this will also include deletion from storage servers and backup tapes (see the Backup & Retention Policy³). If earlier deletion is required, then the PI or their proxy will need to send in a Service Desk ticket to IT Services to initiate deletion. All data will be deleted apart from; metadata that surrounds the file, name, size, creation date and deletion date, but no contents of the data will be stored.

² UoB Research Data Management Policy is available here:

<https://intranet.birmingham.ac.uk/as/libraryservices/library/research/rdm/Policies/Research-Data-Management-Policy.aspx>

³ Backup & Retention Policy for the Research Data Store is available here:

<https://intranet.birmingham.ac.uk/it/teams/infrastructure/research/bear/research-data-service/RDS/BackupRetentionPolicy.aspx>