# Data Management Planning EPSRC funding applicants

Version 2.8 June 2021



## University of Bristol Research Data Service

Image: big-bang-422749\_1280.jpeg, Pixabay, Public Domain





### SUMMARY

On the 1<sup>st</sup> May 2015, the EPSRC changed its grant requirements. Both the University and researchers are now required to adhere to a set of expectations<sup>1</sup> with regards to research data management.

#### Expectations of particular note:

- The EPSRC does not require a data management plan to be submitted with a grant application. However, the University does require the completion of a short online form as part of the fEC system, which asks you to consider data management issues. This can be found at research-data-service.onlinesurveys.ac.uk/epsrc
- If there are potential costs in storing and/or managing your research data, these will need to be highlighted in the costs of your grant.
- Researchers should comply with the University's policies and procedures concerning research data.
- Published research papers should include a short statement describing how and on what terms any supporting research data may be accessed.
- Metadata describing your research data should be published within 12 months of the data being generated and include a DOI (Digital Object Identifier).
- Where access to the data needs to be restricted, provide justification in the published metadata.

 Research data needs to be securely preserved for 10 years after any privileged access period expires and be effectively curated throughout its lifecycle.

The guidance in this document is available in different formats, including a summary<sup>2</sup> and an interactive online tutorial<sup>3</sup>.

### INTRODUCTION

This document outlines the expectations from the EPSRC concerning the management and provision of access to research data and what EPSRC-funded researchers will need to do in order to comply with those expectations.

Unlike other funding bodies, the EPSRC does not require a data management plan to be submitted with a grant application. However, you will still need to consider how your research data will be managed when applying for funding. If there are potential costs in storing and/or managing your research data, these will need to be highlighted in the costs of your grant. The University requires the completion of a short online form demonstrating you have considered the costs and responsibilities associated with research data management as part of the fEC process for EPSRC grants. As of 2020, the former fEC Project Costing Tool has been retired, and this form is now available through the Worktribe system.<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> EPSRC Expectations

https://epsrc.ukri.org/about/standards/researchdata/exp ectations/

<sup>&</sup>lt;sup>2</sup> Research Data Service guide to EPSRC Expectations <u>http://www.bristol.ac.uk/staff/researchers/data/meeting</u> <u>-epsrc-data-expectations/</u>

 <sup>&</sup>lt;sup>3</sup> Meeting EPSRC expectations on research data Bootcamp <u>https://data.bris.ac.uk/bootcamp-epsrc/</u>
<sup>4</sup> Worktribe (internal only) <u>https://uob.sharepoint.com/sites/hr-finance-systems-</u> support/SitePages/home-worktribe.aspx

#### Definitions

Research data are data, or units of information, that are created in the course of funded or unfunded research, and often arranged or formatted in such a way as to make them suitable for communication, interpretation, and processing, perhaps by a computer. Examples of research data include a spreadsheet of statistics, magnetic field data, a collection of digital images, or remote sensing data. Research data does not include data generated in the course of personal activities, desktop or mailbox backups, or data produced by non-research activities such as university administration and teaching.

Note that in the context of the EPSRC Policy Framework, research data is not defined as every piece of data produced during a project. The EPSRC has indicated it expects the data that underpins published research outputs to be kept as a priority. However, researchers themselves should decide what should and what should not be kept, in the first instance.

#### **EPSRC** expectations

The EPSRC has nine research data management expectations for organisations that are in receipt of EPSRC funding. These in turn affect the way individual researchers should manage and share their research data.

The University requires EPSRC applicants to confirm they have considered the EPSRC's expectations by

completing a short outline data management plan: research-data-service.onlinesurveys.ac.uk/epsrc

This should be completed before an application for funding is finalised for submission.

These expectations can be grouped around a number of key themes.

## Awareness of Bristol University policies and processes concerning research data

The University is committed to supporting its researchers in meeting the EPSRC's expectations by providing an environment that recognises and supports research excellence, and has developed a policy<sup>5</sup> that highlights the responsibilities of the University and its researchers.

The EPSRC expects all its funded researchers or research students to comply with the University's policies and processes concerning research data holdings. All research undertaken at the University must comply with relevant legislation, including copyright, ethical and legal requirements. A list of all University policies relevant to research data can be found in **Appendix A** of this document.

#### Access to underlying data

In accordance with the UKRI (formerly RCUK) Common principles on data policy,<sup>6</sup> the EPSRC requests that published papers (resulting from funded research)

 <sup>&</sup>lt;sup>5</sup> University of Bristol research data management and open data policy <u>data.bris.ac.uk/rdm-policy/</u>
<sup>6</sup> UKRI Common principles on data policy <u>https://www.ukri.org/apply-for-funding/before-you-</u>

apply/your-responsibilities-if-you-get-funding/makingresearch-data-open/

should include a short statement explaining how and on what terms the underlying data can be accessed.

The most straightforward way to make your data accessible is to publish it through a repository. Sharing via an appropriate, established repository is usually expected in subject areas where such repositories exist. The University of Bristol has its own Research Data Repository<sup>7</sup> which researchers from any discipline may wish to use. This repository can provide ongoing access to research data for a minimum of 20 years. Contact the Research Data Service<sup>8</sup> as early as possible if you believe you'll need to make use of Bristol's data.bris Research Data Repository.

As part of the process of depositing your research data and making it publicly accessible, the data.bris repository service automatically assigns a DOI (Digital Object Identifier) to your data, which can be used for citation purposes and for associating the dataset with other research outputs. It is recommended that the authors of published academic papers do not provide their own current contact details as a means by which underlying research data may be accessed, as these details are likely to change over time. Guidance on citing your research data is available at the Research Data Service website.<sup>9</sup>

#### Metadata

Metadata is 'data about data' or 'cataloguing information' that enables data to be found, understood and re-used where necessary. There are various other pieces of information that it is useful to record; bear in mind that the metadata must be sufficient to allow others to understand what research data exists, why, when, and how it was generated, and how to access it.

The EPSRC requests that metadata describing research data holdings is published by the University within 12 months of the data being generated, and that metadata for digital data should include a DOI.

When documenting your data during the course of your research, it is generally best to use established and shared metadata standards, rather than create new ones, as this helps with consistency and saves effort. The DCC have a useful list of metadata standards for specific disciplines.<sup>10</sup>

While the re-use and sharing of data is very much encouraged, it is recognised that there may be legal, ethical and commercial constraints on the release of particular research data that make it unsuitable for sharing. It may be that restricted parts of your data cannot be shared, but the remainder can. The EPSRC will expect you to provide justification for limiting access and an explanation of how, and by whom this restricted access will be managed.

#### Storage and preservation

It is expected that research data from any EPSRCfunded project will be preserved in a secure manner for at least 10 years, either after the expiry of any

 <sup>&</sup>lt;sup>7</sup> data.bris Research Data Repository <u>http://www.bristol.ac.uk/staff/researchers/data/contacts</u> /
<sup>8</sup> The University of Bristol's Research Data Service data.bris.ac.uk

 <sup>&</sup>lt;sup>9</sup> Citing your research data <u>http://bit.ly/33aoMCq</u>
<sup>10</sup> DCC Disciplinary Metadata Standards
<u>https://www.dcc.ac.uk/guidance/standards/metadata</u>

privileged access period agreed by the EPSRC or, if others have accessed the data, from the last date on which access to the data was requested by a third party.

If you are not part of a study with existing data storage arrangements, it is recommended that when you create data you store it in the University's Research Data Storage Facility (RDSF) managed by the Advanced Computing Research Centre.<sup>11</sup> Each research staff member is entitled to 5TB of secure data storage without charge. If your storage quota is already used up, or if your project will exceed this storage limit, there will be a cost and the ACRC should be contacted for guidance before your budget is finalised. The backup procedures, policies and controlled access arrangements used by the RDSF are of a very high standard, and data is stored for a minimum of 20 years. Full details of how to apply for data storage are available on the University's website.<sup>12</sup>

If you choose not to store your EPSRC-funded data in the RDSF or in another UK-based data centre, you will need to ensure that it is not held somewhere where the legal safeguards are lower than in the UK, this is especially important if you are planning to use a cloud storage provider as the storage may be governed by a different legal jurisdiction.

You should also consider how you will keep your data safe before it's deposited in a storage facility such as the RDSF. This is particularly important if you are conducting field research. As a minimum requirement, try to ensure that at least two copies of the data exist and that every copy can easily be accounted for and located if required.

Any significant EPSRC-funded, physical samples or collections, particularly those which underpin a research claim, should also be stored appropriately for a minimum of ten years after a project has concluded. As an alternative to retaining physical samples, clear documentation on how to reproduce samples is acceptable. Further guidance for non-digital data is available in the Research Data Service online tutorial on meeting EPSRC expectations.<sup>13</sup>

The EPSRC expects the research data it funds to be correctly curated throughout its lifecycle. The University recognises that numerous stakeholders will be involved during the data curation lifecycle, and researchers may be involved at several stages. In order to support these activities, it is worth thinking about your own data over the longer term, how it is created, the file formats you are using, and how well suited these are to long-term preservation.

<sup>&</sup>lt;sup>11</sup> Advanced Computing Research Centre, University of Bristol, <u>www.acrc.bris.ac.uk</u>

 <sup>&</sup>lt;sup>12</sup> ACRC, Applying for Research Data Storage <u>https://www.acrc.bris.ac.uk/acrc/storage\_application.ht</u>
<u>m</u>
<sup>13</sup> <u>https://data.bris.ac.uk/bootcamp-epsrc/</u>

## APPENDIX A – BRISTOL UNIVERSITY POLICIES AND GUIDANCE

#### Policies

Ethics Policy and Procedure <u>www.bristol.ac.uk/media-</u> <u>library/sites/red/documents/research-</u> <u>governance/Ethics\_Policy\_v8\_03-07-19.pdf</u> - governs the ethics of research across the University as a whole.

Research Governance and Integrity Policy

http://www.bristol.ac.uk/red/researchgovernance/researchintegrity.html - requires that all research data should be retained for suitable periods, in line with relevant laws and conditions imposed by research funders.

Information Security Policy documents <u>www.bristol.ac.uk/infosec/policies/docs</u> - series of policies covering information access and security.

#### Advice and guidance

Bristol's EPSRC Outline Data Management Plan

research-data-service.onlinesurveys.ac.uk/epsrc

Data Protection Act - University Secretary's Office www.bristol.ac.uk/secretary/dataprotection

Freedom of Information Act www.bristol.ac.uk/secretary/foi/

#### Ethical issues

Faculty Ethics Officers <u>www.bristol.ac.uk/red/research-</u> governance/ethics/uni-ethics Research Governance Team (for projects involving human participants and their tissue and/or data) www.bristol.ac.uk/red/research-governance

Commercial contracts - Contracts Team in Research and Enterprise Development (RED) <u>www.bristol.ac.uk/red/contracts</u>

Information Security <u>www.bristol.ac.uk/infosec/</u>

Research data management issues www.bristol.ac.uk/staff/researchers/data