

Royal Society Outline of Data Management and Data Sharing Plan

Introduction

Applicants to Royal Society funding schemes are required to complete an **Outline of a Data Management and Data Sharing Plan** section in the application form. The requirement is the same for all funding schemes, and Royal Society guidance is reproduced below.

This section of the application must be reviewed by the Research Data Manager, prior to submission. Draft applications including the plan should be provided no later than 5 working days before the application deadline. General guidance on data management planning is available on the [Research Data Management website](#). Contact the Research Data Manager if you require preliminary guidance on completing the plan.

Contact: Research Data Manager: researchdata@reading.ac.uk / 0118 373 6161

Scheme notes guidance

The Royal Society guidance on completing the Outline of a Data Management and Data Sharing Plan is provided in full below. This guidance is found in all Royal Society funding scheme notes, e.g. scheme notes for the [Research Grants scheme](#), p. 12-13.

The Royal Society supports science as an open enterprise and is committed to ensuring that data outputs from research supported by the Society are made publicly available in a managed and responsible manner, with as few restrictions as possible. Data outputs should be deposited in an appropriate, recognised, publicly available repository, so that others can verify and build upon the data, which is of public interest. To fully realise the benefits of publicly available data they should be made intelligently open by fulfilling the requirements of being discoverable, accessible, intelligible, assessable and reusable. The Royal Society does not dictate a set format for data management and sharing plans. Where they are required, applicants should structure their plan in a manner most appropriate to the proposed research. The information submitted in plans should focus specifically on how the data outputs will be managed and shared, detailing the repositories where data will be deposited. In considering your approach for data management and sharing, applicants should consider the following:

- *What data outputs will be generated by the research that are of value to the public?*
- *Where and when will you make the data available?*
- *How will others be able to access the data?*

- *If the data is of high public interest, how will it be made accessible not only for those in the same or linked field, but also to a wider public audience?*
- *Specify whether any limits will be placed on the data to be shared, for example, for the purposes of safeguarding commercial interests, personal information, safety or security of the data.*
- *How will datasets be preserved to ensure they are of long-term benefit?*

If the proposed research will generate data that is of significant value to the research community, then please provide details of your data management and sharing plan. (200 words max.)

Completing the Outline of Data Management and Data Sharing Plan

There is a 200-word limit for this section, so you need not go into detail. The most important thing is to clearly identify your data outputs and the data repository or repositories you will use to preserve and share them on completion of the research. You should also ensure that you have responded to all of the 6 bullet points specified in the Royal Society scheme notes quoted above. In the following guidance, these bullet points are referenced by the numbers in brackets.

What data outputs of value will be generated by the research? (1)

Describe your data outputs in terms of data type, content (key variables and characteristics: what are you recording/measuring/etc.?) and approximate expected quantity (no. of measurements, model runs etc., total volume if substantial). It may be useful to specify the format or formats in which the data will be stored.

Where and when data will be made available, how will others access them, and how will data be preserved? (2, 3, 6)

All of these questions can be answered by discussing the data repository or repositories that will be used to preserve and share the data.

Data should be made publicly available on publication of main findings by deposit in a data repository. Guidance on choosing a suitable data repository is available [here](#). All University members have the option of using the [University of Reading Research Data Archive](#), which will preserve and enable access to data in the long-term. Up to 20 GB of data per project can be deposited at no charge. Deposits greater than 20 GB may be subject to a charge and must be agreed in advance. If you intend to deposit more than 20 GB of data in the Archive, contact researchdata@reading.ac.uk to discuss.

A sample statement might read as follows:

Data will be made available on publication of main findings by deposit in the University of Reading Research Data Archive (<https://researchdata.reading.ac.uk/>). Data will be freely accessible from the Archive, and will be assigned a Digital Object Identifier (DOI), so that they can be cited and linked to from project publications. Data deposited in the Archive will be preserved for a minimum of 10 years.

How will data of high public interest be made accessible to a public audience? (4)

You would only need to address this question if the data were of high public interest, e.g. likely to have interest outside your field. It may be useful to indicate the specific categories of users you expect the data to be of interest to, or the specific types of use the data might attract. There may be areas in which your research has or may have impact potential: for example, your research and the underlying data may provide evidence in support of specific areas of policy-making.

Some strategies you may use (as relevant) include:

- The dataset will be documented with a general user in mind, to ensure they are understandable and usable by others outside the field;
- The dataset will be publicised via the project website and other project communication channels aimed at general public users or targeting specific impact stakeholders, as well as being cited from project publications;
- A data paper describing the dataset will be published. (A data paper is a peer reviewed document describing a dataset, published in a peer reviewed journal. Its focus is on describing the dataset as a resource, i.e. explaining the purpose and circumstances of its creation, and allowing other potential users to understand its value and possible uses.)

Will any limits be placed on data to be shared? (5)

Limits on data sharing should be applied only where there is a valid legal, ethical or commercial reason to restrict access to data.

Commercial

If commercial exploitation of results is anticipated, access to data may be restricted for a period pending confirmation of IP protection, but data should be made accessible as soon as possible once findings have been published. For example:

We envisage generating IP with commercial potential. Access to data may be restricted for a period pending confirmation of IP protection, but the data will be made accessible as soon as possible once findings have been published.

Personal/confidential

Data containing personal, sensitive or confidential information should be redacted for public sharing wherever possible. Most data collected from human subjects can be anonymised, and most data containing confidential or sensitive information can be made safe for sharing by being redacted. The [UK Data Service](#) provides guidance on anonymisation of both quantitative and qualitative data.

Where data is being collected from participants, you must ensure participants are informed in the recruitment and consent process that anonymised data will be made publicly available. Guidance on preparing for sharing of data collected from participants is provided [here](#).

Sometimes data cannot be made publicly accessible, for example, if it is not possible to anonymise the data (biometric data, for example) or if the risk of causing harm or distress by disclosure is significant. In such a situation, controlled sharing of data, with

the consent of the data subjects, may still be possible. Some data repositories, e.g. the UK Data Service [ReShare](#) repository and the [European Genome-phenome Archive](#), can manage controlled access to sensitive/confidential data. The University Research Data Archive may be able to offer a restricted access option, contact the Research Data Manager if you wish to discuss this.

Additional considerations

Storage and computing

You should consider any requirements you will have for resources related to the storage and processing of research data, and ensure all eligible costs are included in your budget. In particular you will need to consider:

- how much data you will need to store during the project, where data will be stored, and any associated costs;
- whether any dedicated computing resource is required for computing-intensive proposals, and if so at what specification and cost.

Data collected/held at the University should be stored using University-managed infrastructure, which will provide data security, replication in separate data centres, automated backup and file recovery. For the different options available, and information about costs, please [read the guidance here](#).

If you have computing-intensive requirements, custom specifications of CPU, memory, storage and GPU can be purchased from the University on a pro rata basis. Information is available in the [Academic Computing Team website](#).