

## **MRC Template**

**Plan Name** MRC Template

**Principal Investigator / Researcher** TUoS Researcher

**Funder** -

**Institution** University of Sheffield

### **0. Proposal name**

#### **0. Enter the proposal name**

##### **MRC guidance:**

Exactly as in the proposal that the DMP accompanies

### **1. Description of Data**

#### **1.1 Type of Study**

##### **MRC Guidance**

Up to three lines of text that summarise the type of study (or studies) for which the data are being collected.

#### **1.2 Types of Data**

##### **MRC Guidance**

Types of research data to be managed in the following terms: quantitative, qualitative; generated from surveys, clinical measurements, interviews, medical records, electronic health records, administrative records, genotypic data, images, tissue samples,...

### **DCC guidance on Data Type**

Questions to consider:

- What types of data will you create?
- Which types of data will have long-term value?

Guidance:

Outline the types of data that are expected to be produced from the project e.g. quantitative, qualitative, survey data, experimental measurements, models, images, audiovisual data, samples etc. Include the raw data arising directly from the research, the reduced data derived from it, and published data.

### **The University of Sheffield: guidance on Data Type**

Please see the University of Sheffield webpage '[What is research data?](#)' for guidance.

#### **1.3 Format and scale of the data**

##### **MRC Guidance**

File formats, software used, number of records, databases, sweeps, repetitions,... (in terms that are meaningful in your field of research). Do formats and software enable sharing and long-term validity of data?

### **DCC guidance on Data Volumes**

Questions to consider:

- Do you have sufficient storage?
- Do you need to include costs for additional managed storage?
- Will the scale of the data pose challenges when sharing or transferring data between sites?

Guidance:

Consider the implications of data volumes in terms of storage, backup and access. Estimate the volume of data in MB/GB/TB and how this will grow to make sure any additional storage and technical support required can be provided.

### **The University of Sheffield: guidance on Data Volumes**

Please see the University of Sheffield Corporate Information and Computing Services webpages on '[Research data storage](#)' and '[Storage options](#)' for guidance.

### **DCC guidance on Data Format**

Questions to consider:

- What format will your data be in?
- Why have you chosen to use particular formats?
- Do the chosen formats and software enable sharing and long-term validity of data?

Guidance:

Outline and justify your choice of format e.g. SPSS, Open Document Format, tab-delimited format, MS Excel. Decisions may be based on staff expertise, a preference for open formats, the standards accepted by data centres or widespread usage within a given community. Using standardised and interchangeable or open lossless data formats ensures the long-term usability of data.

See UKDS Guidance on [recommended formats](#).

### **The University of Sheffield: guidance on Data Format**

Please see the University of Sheffield webpage on '[Organising your data: Choosing data formats](#)' for guidance.

## **2. Data collection / generation**

### **2.1 Methodologies for data collection / generation**

#### **MRC Guidance**

How the data will be collected/generated and which community data standards (if any) will be used at this stage.

### **DCC guidance on Data Capture Methods**

Questions to consider:

- How will the data be created?
- What standards or methodologies will you use?
- How will you structure and name your folders and files?
- How will you ensure that different versions of a dataset are easily identifiable?

Guidance:

Outline how the data will be collected/generated and which community data standards (if any) will

be used at this stage. Indicate how the data will be organised during the project, mentioning for example naming conventions, version control and folder structures. Consistent, well-ordered research data will be easier for the research team to find, understand and reuse.

### **The University of Sheffield: guidance on Data Capture Methods**

How will you organise your research data and handle version control? Please see the University of Sheffield webpage on '[Organising your data: Naming and organising files and folders](#)' for guidance.

## **2.2 Data quality and standards**

### **MRC Guidance**

How consistency and quality of data collection / generation will be controlled and documented, through processes of calibration, repeat samples or measurements, standardised data capture or recording, data entry validation, peer review of data or representation with controlled vocabularies.

### **DCC guidance on Data Quality**

Questions to consider:

- How will you control data capture to ensure data quality?
- What quality assurance processes will you adopt?

Guidance:

Explain how the consistency and quality of data collection will be controlled and documented. This may include processes such as calibration, repeat samples or measurements, standardised data capture or recording, data entry validation, peer review of data or representation with controlled vocabularies.

### **The University of Sheffield: guidance on Data Quality**

Please see the UK Data Service webpage on [data quality assurance](#) for guidance.

## **3. Data management, documentation and curation**

### **3.1 Managing, storing and curating data**

#### **MRC Guidance**

Briefly, how data will be stored, backed-up, managed and curated in the short to medium term. Specify any community agreed or other formal data standards used (with URL references). [Enter data security standards in Section 4].

### **DCC guidance on Storage and Backup**

Questions to consider:

- Where will the data be stored?
- How will the data be backed up? i.e. how often, to where, how many copies, is this automated...
- Who will be responsible for storage and backup?
- Do you have access to enough storage or will you need to include charges for additional services?

Guidance:

Describe how the data will be stored and backed-up to ensure the data and metadata are securely stored during the lifetime of the project. Storing data on laptops, computer hard drives or external storage devices alone is very risky. The use of robust, managed storage with automatic backup, for example that provided by university IT teams, is preferable.

See UKDA guidance on [data storage and backup](#).

### **The University of Sheffield: guidance on Storage and Backup**

**Note:** Storing data on laptops, computer hard drives or external storage devices alone is not recommended. The use of robust, managed storage with automatic backup is preferred by the University and by funders.

Data and definitive project documentation should be stored on centrally provisioned University of Sheffield virtual servers and [research data storage infrastructure](#) throughout the lifetime of the project. Both Windows and Linux Virtual Servers with up to 10TB of storage are made available to research projects. Access control is by authorised University computer account username and password. Off-site access is facilitated by secure VPN connection authenticated by University username and remote password. By default, two copies of data are kept across two physical plant rooms, with a 28 day snapshot made of data and backed up securely offsite at least daily. This service is maintained by the University's Corporate Information and Computing Services.

[Google Drive](#) may be used for more flexible collaborative working but only where non personal-sensitive information is involved. Where Google Drive is used, copies of complete and definitive documents should be transferred to the main project repository on the University research storage infrastructure.

Please see the University of Sheffield webpage on '[Keeping your data safe](#)' for further guidance.

### **Faculty of Medicine, Dentistry & Health: guidance on Storage and Backup**

All requests for research data storage in the Faculty of Medicine, Dentistry and Health should be made to the Faculty IT Hub in the first instance ([med-it@sheffield.ac.uk](mailto:med-it@sheffield.ac.uk)). They will work with you to create an appropriate folder structure and give access to authorised users.

## **3.2 Metadata standards and data documentation**

### **MRC Guidance**

Plans for documenting, annotating and describing data so that research data are usable by others than your own team. This may include documenting the methods used to generate the data, analytical and procedural information, capturing instrument metadata alongside data, documenting provenance of data and their coding, detailed descriptions for variables, records, etc.

### **DCC guidance on Metadata**

Questions to consider:

- How will you capture / create the metadata?
- Can any of this information be created automatically?
- What metadata standards will you use and why?

Guidance:

Metadata should be created to describe the data and aid discovery. Consider how you will capture this information and where it will be recorded e.g. in a database with links to each item, in a 'readme' text file, in file headers etc.

Researchers are strongly encouraged to use community standards to describe and structure data,

where these are in place. The DCC offers [a catalogue of disciplinary metadata standards](#).

### **The University of Sheffield: guidance on Metadata**

Metadata is a structured form of documentation that identifies and describes your data. Researchers should use community standards, where they exist: see the DCC webpage on [Disciplinary metadata standards](#).

Please see the University of Sheffield webpages on '[Describing your data](#)' and '[Metadata](#)' for guidance.

### **DCC guidance on Documentation**

Questions to consider:

- What metadata, documentation or other supporting material should accompany the data for it to be interpreted correctly?
- What information needs to be retained to enable the data to be read and interpreted in the future?

Guidance:

Describe the types of documentation that will accompany the data to provide secondary users with any necessary details to prevent misuse, misinterpretation or confusion. This may include information on the methodology used to collect the data, analytical and procedural information, definitions of variables, units of measurement, any assumptions made, the format and file type of the data.

### **The University of Sheffield: guidance on Documentation**

**Note:** Documentation and metadata describe the context, content and structure of your data and are essential for understanding and reusing them. See the University of Sheffield webpage '[Describing your data](#)' for more information.

**Example text:** *"Methods and SOPs will be stored electronically in Microsoft Word documents (.doc) with the spreadsheets containing data"*

*"Explanation of the experimental and analytical methods used will be provided in text documents, stored alongside the data"*

*"Data documentation will accompany datasets submitted to the ... repository at the end of the research"*

## **3.3 Data preservation strategy and standards**

### **MRC Guidance**

Plans and place for long-term storage, preservation and planned retention period for the research data. Formal preservation standards, if any. Indicate which data may not be retained (if any).

### **DCC guidance on Preservation Plan**

Questions to consider:

- What is the long-term preservation plan for the dataset? e.g. deposit in a data repository
- Will additional resources be needed to prepare data for deposit or meet charges from data repositories?

Guidance:

Researchers should consider how datasets that have long-term value will be preserved and curated beyond the lifetime of the grant. Also outline the plans for preparing and documenting data for sharing and archiving.

If you do not propose to use an established repository, the data management plan should demonstrate that resources and systems will be in place to enable the data to be curated effectively beyond the lifetime of the grant.

## **The University of Sheffield: guidance on Preservation Plan**

**Note:** For guidance see the University of Sheffield webpages on '[Preserving your data](#)' and on '[Data repositories](#)'.

Long term preservation and access may be best managed by using a specialist data repository. Some funders specify a data repository to use, such as the [UK Data Service ReShare](#) or the [Archaeology Data Service](#). To find an appropriate repository, look in

- [re3data.org](#)
- [BBSRC supported resources](#)
- [Wellcome Trust - Data repositories and database resources](#)

If no suitable repository is available you may [deposit data in ORDA](#), the University of Sheffield data repository. Alternatively, if you need to regulate users' access through 'Data sharing agreements', data may be retained in the University's research storage infrastructure and [registered in ORDA](#).

**Suggested text in all cases:** *"Data will be archived in line with the University of Sheffield's Research Data Management Policy, which is a component of the University's Policy on Good R&I Practices (the 'GRIP' Policy)."*

**Where data is in paper format:** *"Data collected in paper form will be routinely digitised and the paper form disposed of / stored for at least 10 years at our universities in secured areas."*

**For data deposited in external data repositories:** *"Research data selected for long-term preservation and sharing will be deposited in [name of repository/weblink]. The [name of repository] is openly accessible and searchable and will guarantee preservation of these data for ten years or more. Metadata records describing these data will be created in ORDA, the University of Sheffield research data registry and repository"*

**Where some research data are being deposited in ORDA:** *"Data that are not deposited in [name of repository/weblink] will be deposited in ORDA, a repository and registry of research data produced at the University of Sheffield, which will preserve data for ten years or more."*

**Where data is deposited in ORDA only:** *"Data selected for long-term preservation and sharing will be deposited in ORDA, a repository and registry of research data produced at the University of Sheffield, which will guarantee preservation for ten years or more."*

**Where data is being retained locally, but not made 'openly' accessible:** *"Data selected for long-term preservation and sharing will be stored on centrally provisioned University of Sheffield virtual servers and research storage infrastructure (<https://www.sheffield.ac.uk/cics/research>) for at least ten years. Records of these data will be published in ORDA, a registry of research data produced at the University of Sheffield."*

## **DCC guidance on Period of Preservation**

Questions to consider:

- How long will the data be retained and preserved?

Guidance:

This may depend on the type of data. Most research funders expect data to be retained for a minimum of 10 years from the end of the project. For data that by their nature cannot be re-measured, efforts should be made to retain them indefinitely.

### **The University of Sheffield: guidance on Period of Preservation**

The [RCUK](#) funders generally expect data that underpins findings in publications should be accessible for at least ten years after publication. However, data that by their nature cannot be re-measured or recreated such as earth observations or people-based data may often warrant indefinite storage and preservation.

Many research funders specify which data need preserving, how long for and where to deposit these data: See the University of Sheffield webpage on '[Research funder policy summaries](#)' for information.

### **DCC guidance on Data Selection**

Questions to consider:

- Which data are of long-term value and should be shared and/or preserved?
- How will you decide what to keep?

Guidance:

Indicate which data you intend to preserve beyond the period of funding. This should be based on what has long-term value and is economically viable to keep. Consider how long you wish to keep the data and what will happen to it e.g. deposit in a data repository to enable reuse.

See the DCC guide: [How to appraise and select research data for curation](#).

### **The University of Sheffield: guidance on Data Selection**

Most funders now expect data underlying published papers, plus data of particular long-term value, to be made available to other researchers at the end of a project. Please see the University of Sheffield webpage on '[Preserving your data](#)' for guidance on data selection. Check your funder's policy on the University of Sheffield webpage '[Research funder policy summaries](#)'.

The Digital Curation Centre provides useful advice about [data selection and appraisal](#). The [NERC data value checklist](#) provides guidance on determining long-term value.

## **4. Data security and confidentiality of potentially disclosive personal information**

### **4.1 Formal information/data security standards**

#### **MRC Guidance**

Identify formal information standards with which your study is or will be compliant. An example is ISO 27001.

### **DCC guidance on Data Security**

Questions to consider:

- What are the risks to data security and how will these be managed?
- Will you follow any formal standards?

Guidance:

If your data is sensitive (e.g. detailed personal data, politically sensitive information or trade



secrets) you should discuss any appropriate security measures that you will be taking. Note the main risks and how these will be managed. Identify any formal standards that you will comply with e.g. ISO 27001.

See DCC Briefing Paper on [Information Security Management - ISO 27000](#).

See UKDS guidance on [data security](#).

### **The University of Sheffield: guidance on Data Security**

**Note:** Data security is needed to prevent unauthorised access or disclosure and changes to or destruction of data. Please see the University of Sheffield webpage '[Keeping your data safe](#)' for guidance.

All staff and researchers must complete the online training at <https://infosecurity.shef.ac.uk>. This training will be particularly helpful when filling this part of the DMP. If you require assistance please contact the University's Information Security team at <https://www.shef.ac.uk/cics/infosec>.

The University has [policies relating to information security](#) requiring its users to adhere, as a minimum, to the following security standards: [Information Security Policy](#), [Data Protection Policy](#). More secure system policies may be defined where necessary, for example where patient data is involved. University Departments may have established their own policies regarding information security, e.g. [ScHARR Information Governance Policy](#).

The University of Sheffield is not an accredited ISO 27001 institution. The University provides email, Contacts and calendaring services, Google Drive and Google Sites through the Google Apps for Education suite. Google Apps for Education (and the data centres that support the service) are SSAE 16 / ISAE 3402 Type II SOC 2 audited and have achieved ISO 27001 certification. The University is satisfied that personal data is being processed appropriately in accordance with UK Data Protection Law and the University's own privacy policies, and that the security controls put in place by Google are [sufficient to protect University data](#).

**Example text for high-risk data:** *"We will comply with the Data Protection Act and the University's own [Information Security](#) and [Data Protection](#) Policies. The project is governed by Department of Health and so we will comply with the [NHS IGT](#)."*

**Example text for high-risk data:** *"We recognize that this data is highly confidential and is critical to the clinical treatment of patients. Therefore a project specific security policy has been developed in conjunction with the University's Information Security Team [[link to policy](#)]"*.

**Suggested text for low-risk data:** *"The data will not include personal data relating to human participants. The University's [Information Security Policies](#) will be abided by at all times."*

### **Faculty of Medicine, Dentistry & Health: guidance on Data Security**

Some Faculty of Medicine, Dentistry and Health Departments have established their own policies regarding information security, e.g. [ScHARR Information Governance Policy](#).

## **4.2 Main risks to data security**

### **MRC Guidance**

If not using formal standards, summarise the main risks to the confidentiality and security of information related to human participants, and how these risks will be managed. Cover the main processes or facilities for storage and processing of personal data, data access, with controls put in place and any auditing of user compliance with consent and security conditions.

MRC guidance on the [categories of data availability](#) is provided.

### **The University of Sheffield: guidance on Data Security**



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**Suggested text for low-risk data:** *"The data will will not include personal data relating to human participants. The University's [Information Security Policies](#) will be abided by at all times."*

## **Faculty of Medicine, Dentistry & Health: guidance on Data Security**

Some Faculty of Medicine, Dentistry and Health Departments have established their own policies regarding information security, e.g. [ScHARR Information Governance Policy](#).

## **5. Data sharing and access**

### **5.1 Suitability for sharing**

- Yes

#### **MRC Guidance**

Indicate whether the data you propose to collect (or existing data you propose to use) in the study will be suitable for sharing ('Yes' or 'No')

If no, indicate why they will not be suitable for sharing and then go to Section 6.

### **5.2 Discovery by potential users of the research data**

#### **MRC Guidance**

Indicate how potential new users can find out about your data and identify whether they could be suitable for their research purposes, e.g. through summary information (metadata) being readily available on the study website, in the MRC gateway for population and patient research data, or in other databases or catalogues. Indicate whether your policy or approach to data sharing is (or will be) published on your study website (or by other means).

Identify any data repository (-ies) that are, or will be, entrusted with storing, curating and/or sharing

data from your study, where they exist for particular disciplinary domains or data types. Information on repositories is available here.

### DCC guidance on Discovery by Users

Questions to consider:

- How will potential users find out about your data?
- Will you provide metadata online to aid discovery and reuse?

Guidance:

Indicate how potential new users can find out about your data and identify whether they could be suitable for their research purposes. For example, you may provide basic discovery metadata online (i.e. the title, author, subjects, keywords and publisher).

### The University of Sheffield: guidance on Discovery by Users

**Note:** All research data selected for long-term preservation should be registered in the University of Sheffield research data repository [ORDA](#). A metadata record should be created in ORDA irrespective of whether the data files are deposited in ORDA or in another repository. Research data in non-digital formats and digital data that cannot be made accessible or requires controlled access should also be registered in ORDA. Please see the University of Sheffield webpage on '[ORDA user guidance](#)'.

**Suggested text in all cases:** *"Records of datasets will be published in [ORDA](#), the University of Sheffield's registry of research data produced at the University, which will issue DataCite DOIs for registered datasets and promote discovery."*

### DCC guidance on Data Repository

Questions to consider:

- Where (i.e. in which repository) will the data be deposited?

Guidance:

Most research funders recommend the use of established data repositories, community databases and related initiatives to aid data preservation, sharing and reuse.

An international list of data repositories is available via Databib or [Re3data](#).

### The University of Sheffield: guidance on Data Repository

**Note:** For guidance see the University of Sheffield webpages on '[Publishing and sharing your research data](#)' and on '[Data repositories](#)'.

Long term preservation and access may be best managed by using a specialist data repository. Some funders specify a data repository to use, such as the [UK Data Service ReShare](#) or the [Archaeology Data Service](#). To find an appropriate repository, look in

- [re3data.org](#)
- [BBSRC supported resources](#)
- [Wellcome Trust - Data repositories and database resources](#)

If no suitable repository is available you may [deposit data in ORDA](#), the University of Sheffield data repository. Alternatively, if you need to regulate users' access through 'Data sharing agreements', data may be retained in the University's research storage infrastructure

and [registered in ORDA](#).

### 5.3 Governance of access

#### MRC Guidance

Identify who makes or will make the decision on whether to supply research data to a potential new user.

For population health and patient-based research, indicate how [independent oversight of data access and sharing](#) (please see page 10 of PDF file generated by selecting the above or adjacent [link](#)) works (or will work) in compliance with [MRC policy](#).

Indicate whether the research data will be deposited in and available from an identified community database, repository, archive or other infrastructure established to curate and share data.

#### DCC guidance on Method For Data Sharing

Questions to consider:

- How will you make the data available to others?
- With whom will you share the data, and under what conditions?

Guidance:

Consider where, how, and to whom the data should be made available. Will you share data via a data repository, handle data requests directly or use another mechanism?

The methods used to share data will be dependent on a number of factors such as the type, size, complexity and sensitivity of data. Mention earlier examples to show a track record of effective data sharing.

#### The University of Sheffield: guidance on Method For Data Sharing

**Note:** At the end of your research project, your funder may require you to make your research data available for sharing with as few restrictions as possible. Data may be shared by being published in:-

- a Repository or Data Centre - see the University of Sheffield webpage on '[Research data repositories](#)' for guidance
- a journal as an article's supplementary material
- a data journal as a data paper.

Wherever data is published, a metadata record should be [registered in ORDA](#), the University of Sheffield data repository.

**Suggested text for use when data will be placed in a repository:** *"Data will be made available through shared research platforms [insert repository / platform relevant to project] with the relevant permissions in place."*

**Suggested text for use when data will not be placed in a repository:** *"The lead PI and project team [including collaborators if applicable] will review applications to access experimental data and make the decision on whether to supply research data to potential applicants. Data will then be released on a case by case basis."*

### 5.4 The study team's exclusive use of the data

#### MRC Guidance

MRC's requirement is for timely data sharing, with the understanding that a limited, defined period of exclusive use of data for primary research is reasonable according to the nature and value of

the data, and that this restriction on sharing should be based on simple, clear principles. Summarise the principles of your current/intended policy.

### DCC guidance on Timeframe For Data Sharing

Questions to consider:

- When will you make the data available?

Guidance:

Data (with accompanying metadata) should be shared in a timely fashion. It is generally expected that timely release would be no later than publication of the main findings and should be in-line with established best practice in the field. Researchers have a legitimate interest in benefiting from their investment of time and effort in producing data, but not in prolonged exclusive use. Research funders typically allow embargoes in line with practice in the field, but expect these to be outlined up-front and justified.

### The University of Sheffield: guidance on Timeframe For Data Sharing

**Note:** At the end of your research project, your funder may require you to make your research data available for sharing with as few restrictions as possible. Most funders allow a delayed release to allow researchers to have exclusive use of their data and to exploit the results of their research. See the University of Sheffield ['Research funder policy summaries'](#) webpage to determine when you need to make your data available.

**Suggested text in all cases:** *“The project group (including collaborators) will have exclusive use of the data until the main research findings are published or patent applications have been filed [if potentially relevant to project]” and/or “...or for a period of x months/years.”*

**Suggested text if delays are foreseen:** *“Delays in sharing data may arise through a delayed ability to analyse or publish the research findings.” and/or “Delays in sharing data may arise due to IPR and if this is a factor, advice will be sought from the University’s Research & Innovation Services.”*

**Optional additional text:** *“Following publication, data will be made available on request or shared through the [relevant research platforms].”*

### 5.5 Restrictions or delays to sharing, with planned actions to limit such restrictions

#### MRC Guidance

Restriction to data sharing may be due to participant confidentiality, consent agreements or IPR. Strategies to limit restrictions may include data being anonymised or aggregated; gaining participant consent for data sharing; gaining copyright permissions. For prospective studies, consent procedures should include provision for data sharing to maximise the value of the data for wider research use, while providing adequate safeguards for participants. As part of the consent process, proposed procedures for data sharing should be set out clearly and current and potential future risks associated with this explained to research participants.

### DCC guidance on Restrictions on Sharing

Questions to consider:

- Are any restrictions on data sharing required? e.g. limits on who can use the data, when and for what purpose.
- What restrictions are needed and why?

- What action will you take to overcome or minimise restrictions?

Guidance:

Outline any expected difficulties in data sharing, along with causes and possible measures to overcome these. Restrictions to data sharing may be due to participant confidentiality, consent agreements or IPR. Strategies to limit restrictions may include: anonymising or aggregating data; gaining participant consent for data sharing; gaining copyright permissions; and agreeing a limited embargo period.

### **The University of Sheffield: guidance on Restrictions on Sharing**

**Note:** At the end of your research project, your funder may require you to make your research data available for sharing with as few restrictions as possible. Restrictions on the release of data may be allowed, to protect confidentiality and for other ethical and legal considerations:-

- Does your data include confidential and sensitive information?
- Have participants given consent for their data being shared?
- Consider what can be done to make sensitive data openly sharable - can these data be anonymised?
- If different parts of your research data require different access conditions, separate them and deposit them separately, applying different access conditions.

See the University of Sheffield '[Regulatory requirements](#)' webpage and the UK Data Service '[Legal and ethical issues](#)' webpages for more information.

**Suggested text if no restrictions are foreseen:** *“At present we do not foresee any delays in data sharing following publication of the main research findings.”*

**Suggested text for patient-based studies:** *“Patients will be made aware of our data sharing procedures at the time of consent.”*

## **5.6 Regulation of responsibilities of users**

### **MRC Guidance**

Indicate whether external users are (will be) bound by data sharing agreements, setting out their main responsibilities.

### **DCC guidance on Managed Access Procedures**

Questions to consider:

- Will access be tightly controlled or restricted? e.g. by using data enclaves / secure data services
- Will a data sharing agreement be required?
- How will the data be licensed for reuse?

Guidance:

Indicate whether external users will be bound by data sharing agreements, licenses or end-user agreements. If so, set out the terms and key responsibilities to be followed. Note how access will be controlled, for example by the use of specialist services. A data enclave provides a controlled secure environment in which eligible researchers can perform analyses using restricted data resources. Where a managed access process is required, the procedure should be clearly described and transparent.

## The University of Sheffield: guidance on Managed Access Procedures

**Note:** Restrictions on the release of data may be allowed, to protect confidentiality and for other ethical and legal considerations. Access to and use of Sensitive and confidential data can be restricted and regulated using [end user licenses](#), [data sharing agreements](#) or by using a data enclaves.

Whatever form of publishing is used, research data needs to be licensed to indicate what users may or may not do with the data. Data repositories will indicate what licenses are available for the data they house. More information is available from the Digital Curation Centre webpage '[How to license research data](#)'.

See the University of Sheffield '[Regulatory requirements](#)' webpage and the UK Data Service '[Legal and ethical issues](#)' webpages for more information.

**Suggested text:** *"The University of Sheffield's Good Research and Innovation Practice (GRIP) Policy follows RCUK principles for data sharing (<http://www.rcuk.ac.uk/research/datapolicy/>)"*

**Suggested text where a Data sharing agreement is required:** *"External users will be bound by data sharing agreements as specified by the [name of funder] Data Sharing Policy."*

**Suggested text where an external collaborator is involved:** *"Data sharing agreements will be put in place with [name of collaborator], who will be a primary re-user of data"*

## Faculty of Medicine, Dentistry & Health: guidance on Managed Access Procedures

Access to and use of Sensitive and confidential data can be restricted and regulated using end user licenses or data sharing agreements.

MRC, Wellcome Trust and Cancer Research UK provide guidance on data sharing agreements in '[Good Practice Principles for Sharing Individual Participant Data from Publicly Funded Clinical Trials](#)'.

MRC provides information on data access governance, facilitating data access and data sharing agreements in '[MRC Policy and Guidance on Sharing of Research Data from Population and Patient Studies](#)' and '[Principles for access to, and use of, MRC funded research data](#)'.

The University of Sheffield [SCHARR Information Governance Policy](#) provides guidance on [information sharing](#) and an [example data sharing agreement](#).

## 6. Responsibilities

### 6. Responsibilities

#### MRC Guidance

Specify who, alongside the PI, is responsible for ensuring the study-wide data management, as well as for specific roles such as metadata creation, data security and quality assurance of data.

#### DCC guidance on Responsibilities

Questions to consider:

- Who is responsible for each data management activity?
- How are responsibilities split across partner sites in collaborative research projects?

Guidance:

Outline the roles and responsibilities for all activities e.g. data capture, metadata production, data quality, storage and backup, data archiving & data sharing. Individuals should be named where possible. For collaborative projects you should explain the co-ordination of data management responsibilities across partners.

See UKDS guidance on data management [roles and responsibilities](#).



## 7. Relevant policies

### 7. Relevant institutional, departmental or study policies on data sharing and data security

Policy	URL or reference
Data Management Policy and Procedures	University of Sheffield Research Data Management Policy <a href="http://www.shef.ac.uk/polopoly_fs/1.553350!/file/GRIPPolicyextractRDM.pdf">http://www.shef.ac.uk/polopoly_fs/1.553350!/file/GRIPPolicyextractRDM.pdf</a> University of Sheffield Research Data Management Guidance <a href="http://www.sheffield.ac.uk/library/rdm/index">http://www.sheffield.ac.uk/library/rdm/index</a>
Data Security Policy	University of Sheffield Data protection policy <a href="http://www.shef.ac.uk/cics/dataprotection">http://www.shef.ac.uk/cics/dataprotection</a> University of Sheffield Information Security policy <a href="http://www.shef.ac.uk/cics/policies/infosecpolicy">http://www.shef.ac.uk/cics/policies/infosecpolicy</a>
Data Sharing Policy	The study will adhere to the RCUK principles <a href="http://www.rcuk.ac.uk/research/datapolicy/">http://www.rcuk.ac.uk/research/datapolicy/</a>
Institutional Information Policy	University of Sheffield Good Research and Innovation Practice (GRIP) Policy <a href="http://www.sheffield.ac.uk/polopoly_fs/1.356709!/file/GRIPPolicySenateapproved.pdf">http://www.sheffield.ac.uk/polopoly_fs/1.356709!/file/GRIPPolicySenateapproved.pdf</a> University of Sheffield Information Security Policies <a href="http://www.shef.ac.uk/cics/policies/infosec">http://www.shef.ac.uk/cics/policies/infosec</a>
Institutional Ethics Policy	The University of Sheffield Ethics Policy Governing Research Involving Human Participants, Personal Data and Human Tissue <a href="http://www.shef.ac.uk/ris/other/gov-ethics/ethicspolicy">http://www.shef.ac.uk/ris/other/gov-ethics/ethicspolicy</a>
Other	

### DCC guidance: guidance on Related Policies

Questions to consider:

- Are there any existing procedures that you will base your approach on?
- Does your department/group have data management guidelines?
- Does your institution have a data protection or security policy that you will follow?
- Does your institution have a Research Data Management (RDM) policy?
- Does your funder have a Research Data Management policy?
- Are there any formal standards that you will adopt?

Guidance:

List any other relevant funder, institutional, departmental or group policies on data management, data sharing and data security. Some of the information you give in the remainder of the DMP will be determined by the content of other policies. If so, point/link to them here.

### The University of Sheffield: guidance on Related Policies

**Note:** Please refer to the University of Sheffield policies below: these may be used when writing a DMP for any funder. For the 'Data sharing policy', add the data sharing policy of your funder. Please see the University of Sheffield webpage on '[Expectations and obligations](#)' for information on funder policies. List departmental or research group policies on data management, sharing and security here also.



## **Faculty of Medicine, Dentistry & Health: guidance on Related Policies**

SCHARR Information Governance Policy <https://www.shef.ac.uk/scharr/research/igov/policy00>

NHS Information Governance Toolkit <https://www.igt.hscic.gov.uk/>

### **8. Author and contact details**

**8. Author of this Data Management Plan (Name) and, if different to that of the Principal Investigator, their telephone & email contact details**

MRC DMP Author name

rdm@sheffield.ac.uk