

NERC Template

Plan Name NERC Template - NERC Template

Principal Investigator / Researcher TUoS Researcher

Funder -

Institution University of Sheffield

Project information

Project Name

NERC Full DMP

Project Number (NERC PIs only)

NERC Project number

Grant Reference

May be multiple grant references

Principal Investigator

PI name

Organisation

Nominated Data Centre

- Other e.g. Archaeology Data Service
- Polar Data Centre (PDC)
- NERC Earth Observation Data Centre (NEODC)
- National Oceanography Centre (NOC)
- Environmental Information Data Centre (EIDC)
- British Oceanographic Data Centre (BODC)
- British Geological Survey (BGS)
- British Atmospheric Data Centre (BADC)

Choose as applicable

Data Centre Contact

name

Project Data Contact

name

Please specify any other team members with responsibility for data

Names

Roles and Responsibilities

Please state all roles and responsibilities throughout the project

NERC Guidance

For example: who is responsible for obtaining 3rd party data, for capturing data in the field, producing metadata, transferring metadata and data to DDC.

Data Generation Activities

What data will be created and how?

NERC Guidance

Give a short description of the what, how much, when and how etc.

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.

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 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.

University of Sheffield guidance on Data Type

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

University of Sheffield guidance on Data Format

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

In-Project Data Management Approach

How will the data be managed?

NERC Guidance

Provide a statement about how the data will be managed within the project, including backup & security.

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.

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.

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](#).

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.

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](#).

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

Metadata and Documentation

Outline plans for metadata, noting standards that will be used

NERC Guidance

Insert statement about how metadata will be supplied and standards to which it will adhere.

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](#).

University of Sheffield guidance: 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.

University of Sheffield guidance: 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"

Data Quality

What procedures will be used to control data quality?

NERC Guidance

List procedures for quality control of data.

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.

University of Sheffield guidance: Data Quality

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

Exceptions or Additional Services

Clarify any support needed from data centres that exceeds the norm, and show this has been planned / costed.

NERC Guidance

Any exceptional expectations of Data Centres (for example exceptional size or complexity) - funding for which should be included within the project's Directly Incurred costs and explained within the Justification of Resources attachment.

Data Management Plan Information

Author

Question not answered.

Date

Question not answered.

Version Number

Question not answered.

Approved by PI/PM

Question not answered.

Approved by (Data Centre)

Question not answered.

New Datasets

Digital Information

NERC Guidance

Enter a brief description of the activities that will produce the data.

Dataset Description	Contact	Data Volume	Data Format	Issues	Delivery Date	Embargo Date	Reuse Scenario	Preservation Plan
<i>Dataset description</i>	<i>Dataset contact name</i>			<i>Any issues with the data, e.g. legal, access, retention, etc.</i>	<i>Date expect to receive data</i>	<i>No more than two years after delivery</i>		<i>e.g. Keep indefinitely, Do not keep, etc. including destination data centre (if not owning data centre)</i>

Hardcopy Records

NERC Guidance

Enter a brief description of the activities that will produce the data.

Dataset Name	Contact	Data Volume	Data Format	Issues	Delivery Date	Preservation Plan
<i>Name of dataset</i>	<i>Dataset contact name</i>			<i>Any issues with the data, e.g. legal, access, retention, etc.</i>	<i>Date expect to receive data</i>	<i>e.g. Keep indefinitely, Do not keep, etc.</i>

Physical Collections & Samples

NERC Guidance

Enter a brief description of the activities that will produce the data

Dataset Name	Contact	Data Volume	Data Format	Issues	Delivery Date	Preservation Plan
<i>Dataset name</i>	<i>Dataset contact name</i>			<i>Any issues with the data, e.g. legal, access, retention, etc.</i>	<i>Date expect to receive data</i>	<i>e.g. Keep indefinitely, Do not keep, etc.</i>

Third Party/Existing Datasets

Third Party/Existing Datasets

Dataset Name	Contact	Location	Contents	Estimated Size	Responsibility	Licence Issues	Comments
<i>Name of dataset</i>	<i>Name of contact for dataset</i>	<i>Where is it stored</i>	<i>Brief description</i>		<i>Who is responsible for sourcing the dataset</i>		<i>Any additional information (e.g. licence or use restrictions?)</i>

University of Sheffield guidance: Existing Data

Please see the University of Sheffield webpage on '[Finding and reusing data](#)' for guidance.