# ESRC DMP Template *(With guidance notes)*

### Admin Details

**Plan Name:** ESRC Data Management Plan

**Principal Investigator / Researcher:**

**Plan Description:**

**Funder:** ESRC

**Institution:** Royal College of Art

### 1. Assessment of existing data

**1.1 Provide an explanation of the existing data sources that will be used by the research project, with references**

***ESRC Guidance***

*When creating new data sources, explain why existing data sources can not be reused. If purchasing or reusing existing data sources, explain whether issues such as copyright and IPR have been addressed to ensure that the data can be shared i.e. explain how you plan to deal with permissions to share data you have created which is derived from data which you do not own.*

*Data sources that can be consulted are:*

* [*Discover UK Data Service*](https://discover.ukdataservice.ac.uk/)*, with over 6,000 datasets of key economic, social and historical data spanning many disciplines and themes*
* [*ESRC Research Catalogue*](http://www.researchcatalogue.esrc.ac.uk/) *of past and present research awards and their outputs*
* [*RCUK Gateway to research*](http://gtr.rcuk.ac.uk/) *of past and present research awards and their outputs*

***RCA/DCC guidance on Existing Data*** *Questions to consider:*

* *Are there any existing data or methods that you can reuse?*
* *Do you need to pay to reuse existing data?*
* *Are there any restrictions on the reuse of third-party data?*
* *Can the data that you create - which may be derived from third-party data - be shared?*

*Check to see if there are any existing data that you can reuse, for examples by consulting relevant repositories. When creating new data sources, explain why existing data sources cannot be reused. If purchasing or reusing existing data sources, explain how issues such as copyright and IPR have been addressed. A list of repositories is provided by* [*Databib*](http://databib.org/) *or* [*Re3data*](http://www.re3data.org/)*.*

**1.2 Provide an analysis of the gaps identified between the currently available and required data for the research**

***RCA/DCC guidance on Existing Data***

*Questions to consider:*

* *What is the relationship to existing data e.g. in public repositories?*
* *How does your data complement and integrate with existing data?*

*Consider the relationship between the data that you will capture and existing data available in public repositories or elsewhere.*

### 2. Information on new data

**Provide information on the data that will be produced or accessed by the research project**

***ESRC Guidance***

*Give a brief description of new data which you envisage creating. This information should include how the data will be collected (in line with the proposed research methods), their format (e.g. SPSS, Open Document Format, tab-delimited format, MS Excel), and how they will be documented.*

*For example, cover:*

* *data volume*
* *data type*
* *data quality, formats, standards documentation and metadata*
* *methodologies for data collection and/or processing*
* *source and trustworthiness of third party data*

*Using standardised and interchangeable data formats ensures the long-term usability of data. Clear and detailed data descriptions and annotation, together with user-friendly accompanying documentation on methods and contextual information, makes data easy to understand and interpret and therefore shareable and with long-lasting usability.*

* [*Guidance on data formats*](http://ukdataservice.ac.uk/manage-data/format)
* [*Guidance on documenting data*](http://ukdataservice.ac.uk/manage-data/document)

***RCA/DCC guidance: Data description***

*Give a summary of the data you will collect or create, noting the content, coverage and data type, e.g., tabular data, survey data, experimental measurements, models, software, audiovisual data, physical samples, etc.*

*Consider how your data could complement and integrate with existing data, or whether there are any existing data or methods that you could reuse.*

*Indicate which data are of long-term value and should be shared and/or preserved.*

*If purchasing or reusing existing data, explain how issues such as copyright and IPR have been addressed. You should aim to minimise any restrictions on the reuse (and subsequent sharing) of third-party data.*

### 3. Quality assurance of data

**Describe the procedures for quality assurance that will be carried out on the data collected at the time of data collection, data entry, digitisation and data checking.**

***ESRC Guidance***

*Quality control of data is an integral part of a research process. Describe the procedures for quality assurance that will be carried out on the data collected at the time of data collection, data entry, digitisation and data checking.*

*For example this might include:*

* *Documenting the calibration of instruments*
* *Taking duplicate samples or measurements*
* *Standardised data capture, data entry or recording methods*
* *Data entry validation techniques*
* *Methods of transcription*
* *Peer review of data*
* [*Guidance on data quality control*](https://www.ukdataservice.ac.uk/manage-data/format/quality)

***RCA/DCC guidance: Data collection***

*Outline how the data will be collected and processed. This should cover relevant standards or methods, quality assurance and data organisation.*

*Indicate how the data will be organised during the project, mentioning, e.g., naming conventions, version control and folder structures. Consistent, well-ordered research data will be easier to find, understand and reuse.*

*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, data entry validation, peer review of data or representation with controlled vocabularies.*

*See the DataOne Best Practices for*[*data quality*](https://www.dataone.org/best-practices/quality)*.*

### 4. Backup and security of data

**Please describe the data back-up procedures that you will adopt to ensure the data and metadata are securely stored during the lifetime of the project.**

***ESRC Guidance*** *You may need to discuss your institution's policy on backups. If your data is sensitive (e.g. detailed personal data) you should discuss appropriate security measures which you will be taking.*

*The methods of version control of data files should also be stated. Version control includes making sure that if the information in one file is altered, the related information in other files is also adapted, as well as keeping track of versions of data files and their locations.*

* [*Guidance on storing, backup and security*](https://www.ukdataservice.ac.uk/manage-data/store)
* [*Guidance on version control*](https://www.ukdataservice.ac.uk/manage-data/format/versioning)

***RCA/DCC guidance: Storage & security***

*Describe where the data will be stored and backed up during the course of research activities. This may vary if you are doing fieldwork or working across multiple sites so explain each procedure.*

*Identify who will be responsible for backup and how often this will be performed. The use of robust, managed storage with automatic backup, for example, that provided by university IT teams, is preferable. Storing data on laptops, computer hard drives or external storage devices alone is very risky.*

*See UK Data Service Guidance on*[*data storage*](https://www.ukdataservice.ac.uk/manage-data/store)*or DataONE Best Practices for*[*storage*](https://www.dataone.org/best-practices/storage)*.*

*Also consider data security, particularly if your data is sensitive e.g., detailed personal data, politically sensitive information or trade secrets. Note the main risks and how these will be managed. Also note whether any institutional data security policies are in place.*

*Identify any formal standards that you will comply with, e.g., ISO 27001. See the DCC Briefing Paper on Information Security Management -*[*ISO 27000*](http://www.dcc.ac.uk/resources/briefing-papers/standards-watch-papers/information-security-management-iso-27000-iso-27k-s)*and UK Data Service guidance on*[*data security*](https://www.ukdataservice.ac.uk/manage-data/store/security)*.*

*The RCA makes available the institutionally managed Google Drive suite of applications. Google Drive data is stored on servers within the EU and has been assessed by the RCA as a safe and appropriate venue for research data. Google Drive allows for files and data to be accessed from multiple device, so multiple project team members can work on them collaboratively. Google Drive also permits individual permissions so access to sensitive data can be managed as appropriate with internal and external partners. As a Cloud-based online technology, Google Drive removes the risk of data loss as automatic backup of all data is ensured. Furthermore, Google Suite has in-built version control meaning that older versions of the data are retained and backed up, thus guarding against human input error and ensuring retrieval of older versions if necessary. Google Suit undergoes regular independent audits on their data centres, network and operations. This is in compliance with the certified industry standards such as ISO 27001 and 27017.*

### 5. Management and curation of data

**Outline your plans for preparing, organising and documenting data.**

***ESRC Guidance*** *Outline your plans for preparing and documenting data for sharing and archiving (unless otherwise agreed). Identify any additional plans for data sharing, if any. A crucial part of making data user-friendly, shareable and with long-lasting usability is to ensure they can be understood and interpreted by other users. This requires clear and detailed data description, annotation and contextual information, as well as good-structured and well-organised data files.*

* *Guidance on documenting data*
* [*Guidance on transcribing qualitative data*](http://ukdataservice.ac.uk/manage-data/format/transcription)
* [*Guidance on organising data*](http://ukdataservice.ac.uk/manage-data/format/organising)

***RCA/DCC guidance:*** ***Preservation***

*Describe how you will preserve and share your data, including the length of time they will be kept and the nature of the storage location. The RCA Research Data Management Policy requires that all data needed to validate research findings are kept for a minimum of 10 years. Also indicate if any additional resources or funding will be required to deposit and store the data.*

[*UKRI*](https://www.ukri.org/) *funders generally expect data with long-term value to be preserved and remain accessible, alongside the software and code needed to reproduce your findings. This does not mean that you need to keep all of your data, but you will need to state who will be responsible for choosing and archiving data, as well as documenting the removal of any data that must be destroyed.*

*It is particularly important to preserve data which cannot be remeasured or recreated. Many research funders specify which data need to be preserved, how long for and where they should be deposited. See the DCC guide*[*How to appraise and select research data for curation*](http://www.dcc.ac.uk/resources/how-guides/appraise-select-data)*.*

***RCA/DCC guidance: Data repository***

*Long-term preservation and access is generally best managed by using a specialist repository. While you don’t have to specify the repository you will use, you should state the criteria you will use to select it. When considering a repository, you should examine their policies, procedures, metadata standards and any costs that might be incurred. If using a storage facility other than an established repository or data centre, you will need to demonstrate its efficacy and longevity.*

*Some funders specify a data repository, such as*[*UK Data Service ReShare*](http://reshare.ukdataservice.ac.uk/)*,*[*NERC Data Centres*](http://www.nerc.ac.uk/research/sites/data/)*or*[*Archaeology Data Service*](http://archaeologydataservice.ac.uk/)*. Resources such as*[*re3data*](http://www.re3data.org/)*and those provided by* [*BBSRC*](https://bbsrc.ukri.org/research/resources/#datasharing)*or*[*Nature*](https://www.nature.com/sdata/policies/repositories) *can be used to find an appropriate repository. General purpose repositories that you may consider are* [*Zenodo*](https://zenodo.org/) *and* [*Figshare*](https://figshare.com/)*; these are non-discipline specific open access repositories that will ensure the preservation of data for a minimum of 10 years from the last point of access and provide a permanent DOI for the data. Alternatively, RCA researchers can deposit small datasets, particularly those containing textual or visual material, in the RCA Research Repository. All research data selected for long-term preservation should be registered in the RCA Research Data Repository, irrespective of where the data files themselves are deposited. Research data in non-digital formats, and digital data that cannot be made accessible or requires controlled access, should also be registered in the RCA Research Repository. This will increase the discoverability and visibility of the research data.*

### 6. Difficulties in data sharing and measures to overcome these

**If you expect obstacles to sharing your data, explain which and the possible measures you can apply to overcome these.**

***ESRC Guidance*** *State explicitly which data may be difficult to share and why. If ethical issues could cause difficulties in data sharing, explain your strategies for dealing with these issues in the relevant section of the Je-S form, e.g. discussing data sharing with interviewees as part of consent discussions or anonymising data. Refer to the requirements of the ESRC Framework for Research Ethics.*

*The ESRC supports the position that most data - even sensitive and confidential data - can be curated and shared ethically and legally provided researchers pay attention right from the planning stages of research to the following aspects:*

* *when gaining informed consent, include consent for data sharing*
* *where needed, protect participants’ identities by anonymising data; and*
* *address access restrictions to data in the data management and sharing plan, before commencing research.*

[*Guidance on consent and ethics*](http://ukdataservice.ac.uk/manage-data/legal-ethical)

[*Guidance on legislation relating to research data*](http://ukdataservice.ac.uk/manage-data/legal-ethical/obligations)*, including DPA and FoI*

***RCA/DCC guidance on Restrictions on Sharing*** *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 RCA page on Research Funder Policies to determine when you need to make your data available. Restrictions on the release of data may be allowed, to protect confidentiality and for other ethical and legal reasons.*

*While restrictions on sharing should be minimised, you should take into account the following when sharing data:*

* *Does your data include confidential and sensitive information?*
* *Have participants given consent for their data to be shared?*
* *Consider what can be done to make sensitive data openly sharable - can these data be anonymised?*
* *Do different parts of your data require different access conditions? These may require separate deposits.*
* *Who will be responsible for controlling access?*

### 7. Consent, anonymisation and strategies to enable further re-use of data

**Make explicit mention of the planned procedures to handle consent for data sharing for data obtained from human participants, and/or how to anonymise data, to make sure that data can be made available and accessible for future scientific research.**

***ESRC Guidance*** *If unsure how issues of confidentiality are to be addressed to facilitate data sharing,* [*get in touch*](https://www.ukdataservice.ac.uk/help/get-in-touch/data-management.aspx) *for advice.*

[*Guidance on consent and ethics*](https://www.ukdataservice.ac.uk/manage-data/legal-ethical.aspx)

[*Guidance on anonymising data*](https://www.ukdataservice.ac.uk/manage-data/legal-ethical/anonymisation.aspx)

***RCA/DCC guidance on Ethical Issues***

*Questions to consider:*

* *Have you gained consent for data preservation and sharing?*
* *How will sensitive data be handled to ensure it is stored and transferred securely?*
* *How will you protect the identity of participants? e.g. via anonymisation or using managed access procedures*

*Investigators carrying out research involving human participants must ensure that consent is obtained to share data. Managing ethical concerns may include: anonymisation of data; referral to departmental or institutional ethics committees; and formal consent agreements. Ethical issues may affect how you store data, who can see/use it and how long it is kept. You should show that you’re aware of this and have planned accordingly.*

*See UKDS guidance on* [*consent for data sharing*](http://ukdataservice.ac.uk/manage-data/legal-ethical/consent-data-sharing.aspx)

### 8. Copyright and intellectual property ownership

**Please state who will own the copyright and IPR of any new data that you will generate.**

***ESRC Guidance***[*Guidance on data copyright*](http://ukdataservice.ac.uk/manage-data/copyright)

***RCA/DCC guidance on IPR Ownership and Licencing*** *Questions to consider:*

* *Who owns the data?*
* *How will the data be licensed for reuse?*
* *If you are using third-party data, how do the permissions you have been granted affect licensing?*
* *Will data sharing be postponed / restricted e.g. to seek patents?*

*State who will own the copyright and IPR of any new data that you will generate. For multi-partner projects, IPR ownership may be worth covering in a consortium agreement. If purchasing or reusing existing data sources, consider how the permissions granted to you affect licensing decisions. Outline any restrictions needed on data sharing e.g. to protect proprietary or patentable data.*

*See the DCC guide:* [*How to license research data*](http://www.dcc.ac.uk/resources/how-guides/license-research-data)*.*

### 9. Responsibilities

**Outline responsibilities for data management within research teams at all partner institutions**

***ESRC Guidance***

*Indicate who within your research team will be responsible for data management, metadata production, dealing with quality issues and the final delivery of data for sharing or archiving. Provide this information within the Staff Duties section in the Je-S form and where appropriate in the Justification of Resources. If several people will be responsible state their roles and responsibilities in the relevant section of the Je-S form. For collaborative projects explain the coordination of data management responsibilities across partners in your Data Management Plan.*

* [*Guidance on data management roles and responsibilities*](http://ukdataservice.ac.uk/manage-data/plan/roles-and-responsibilities)
* [*Guidance on how to cost data management*](http://ukdataservice.ac.uk/manage-data/plan/costing)

***RCA/DCC Guidance*** *Questions to consider:*

* *Who is responsible for implementing the DMP, and ensuring it is reviewed and revised?*
* *Who will be responsible for each data management activity?*
* *How will responsibilities be split across partner sites in collaborative research projects?*
* *Will data ownership and responsibilities for RDM be part of any consortium agreement or contract agreed between partners?*

*Outline the roles and responsibilities for all activities e.g. data collection, metadata production, data quality, storage and backup, data curation & data sharing. Consider who will be responsible for ensuring relevant policies will be respected. Individuals should be named where possible.*