ESRC Research Data Policy

Introduction
This policy is intended to support ESRC grant holders who collect, produce and re-use data by defining researchers' roles and responsibilities, as well as the roles and responsibilities of the ESRC and its data service providers. These principles are aligned with the overarching RCUK Common Principles on Data Policy.

The Policy is set out in three sections. First, the underlying principles; second, information and guidance for their implementation and third, a description of the roles and responsibilities of all the various actors. It gives further guidance on key strategic issues related to research data policy, for example copyright, security and ethical considerations.

ESRC encourages the re-use of existing data and therefore encourages applicants and grant holders to consider the breadth of data available from various sources before committing to primary data collection. All ESRC grant holders who use third-party data in their research are required to follow the regulations set down by the ESRC, data service providers and the data creators. All data users must acknowledge the sources by formally citing the data used in their research, allowing a third party to discover the data directly.

Where research grant applicants plan to create new data as part of their ESRC-funded proposal, they must demonstrate that no suitable data are available for re-use. ESRC evaluate equally all proposals for funding on the basis of the scientific quality of the research proposal regardless whether the research is going to re-use data or collect new data.

Definitions
Research data are defined for the purpose of this document as information relevant to, or of interest to researchers, either as inputs into or outputs from research. They are research materials resulting from primary data collection or generation, or derived from existing sources intended to be analysed in the course of a research project.

Publicly funded data include data directly commissioned by the ESRC, as well as data created for various purposes which may be beneficial for public benefit or other research purposes. Therefore, they can include data which have been purchased or licensed for use with certain access restrictions.

ESRC data service providers are defined as organisations funded by ESRC that coordinate with data owners to provide access to data to users, by ingesting data into a digital repository and archiving them to provide continued access; they may also provide user support, training and strategic data related advice. At the time of writing the main ESRC data service providers that comply with the principles of this policy are the UK Data Service and UKDS Census Support. Some principles of this policy already apply to the ESRC funded Big Data Network (including the Administrative Data Research Network (ADRN) and the Business and Local Government Data Research Centres). There is an expectation that where possible they shall develop towards full compliance to the principles.
A responsible digital repository is a digital data repository that takes responsibility for data assets according to the FAIR data principles: findable, accessible, interoperable, and re-usable.

Access Levels are the categories used to classify data to determine the conditions under which access will be permitted. Data is classified based on their level of detail, sensitivity and confidentiality. This classification ensures appropriate data handling and access safeguards are put in place.

ESRC Research Data Policy Principles
Principle 1
Publicly-funded research data are a public good, produced in the public interest, which shall be made openly available and accessible with as few restrictions as possible in a timely and responsible manner that meets a high ethical standard and does not violate privacy or harm intellectual property.

Principle 2
Institutional and project-specific data management policies and plans shall be in accordance with relevant standards and community best practice. Data with prospective long-term value shall be properly curated to remain accessible and usable for future research.

Principle 3
To ensure that research data can be effectively re-used by others, sufficient metadata must be recorded and published openly to ensure that research data are both discoverable and can be independently understood without recourse to the creator. Published results shall always include information on how to access the supporting data and/or the associated metadata.

Principle 4
ESRC recognises that there are legal, ethical and commercial constraints on release of research data. To ensure that the research process is not damaged by inappropriate release of data, research organisation policies and practices shall ensure that these constraints are considered at the initiation of the research process and throughout both the research and data life cycles.

Principle 5
To ensure that research teams get appropriate recognition for the effort involved in collecting and analysing data, those who undertake ESRC-funded work may be entitled to a limited period of privileged use of the data they have collected to enable them to publish the results of their research. This period of privileged use shall not preclude the publication of metadata at the earliest opportunity.

Principle 6
In order to recognise the intellectual contributions of researchers who generate, preserve and share key research datasets, creators of these data must provide adequate and persistent information for the research data to be cited, and all users of research data must acknowledge the sources by formally citing the data used, and abide by the terms and conditions under which they are accessed.

Principle 7
It is appropriate to use public funds to support the management and sharing of publicly-funded research data. To maximise the research benefit which can be gained from limited budgets, the mechanisms for these activities shall be both efficient and cost-effective in the use of public funds.

Principle 8
In general data which supports published research outputs shall be findable and accessible at the same time as the published research outputs themselves.

Principle 9
Publishers of research data shall provide adequate and persistent information for the research data to be cited, to support best research practice and integrity.

Implementation notes
Principle 1
Openly available research data, with as few restrictions as possible, means in the ESRC context that research data will be made available for re-use free of charge, as open data, safeguarded data or controlled data. The access category data is classified as should be selected to minimise the risk of disclosing personal information.
To make research data available in a timely manner means for the ESRC that research data resulting from ESRC grants are expected to be deposited with a responsible repository within 3 months of the grant ending.

Principle 2
Research data generated by ESRC-funded research must be well planned and managed by the grant holders during the grant period to enable the data to be exploited to the maximum potential for further research. To this effect, grant applicants planning to generate data are required to submit a data management and sharing plan as part of the grant application process. Research data must be produced to the quality standards expected within the academic community, and managed for long-term sustainability in terms of formats, documentation, storage, backup and security according to the standards set by the ESRC data service providers.

Principle 3
Research data should be accompanied by high-quality documentation and metadata to provide secondary users with essential information to independently understand the data, enable discovery, and allow for scientific re-use. Documentation should describe at least the origin of data, fieldwork and data collection methods, processing and/or the researcher's management of the data. Individual data items such as variables or transcripts should be clearly labelled and described. When depositing data with a responsible repository, a standardized, structured metadata record should be provided or created, according to the standards of that entity and following a metadata standard such as Data Documentation Initiative (DDI), SDMX, or INSPIRE, explaining the purpose, origin, time references, geographic location, creator(s), access conditions and terms of use of the data. (Sometimes multiple metadata standards are required.) The repository will use this to publish, disseminate and promote the research data. All publications based on data resulting from an ESRC grant will specifically include information on where and how the data can be accessed, ideally via a formal citation.

Principle 4
There may be legal, ethical or commercial constraints to data sharing; these should be considered in detail before commencing research with the aim of maximising data sharing.

The ESRC supports the position that most data can be curated and shared ethically 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.

The ESRC regards non-deposit of research data as an exception and reserves the right to request deposit where there is insufficient evidence to prevent data sharing, or to explain why sharing was not considered prior to data collection. Only where researchers have demonstrated due diligence in all three areas will exceptions be granted.

Where issues of confidentiality are foreseen that would prevent data being successfully shared, the grant holder/applicant is encouraged to contact the relevant data service provider (currently the UK Data Service) at the earliest opportunity.
Copyright

The ESRC expects grant holders to meet the copyright requirements set down in the Copyright, Designs and Patents Act 1998. The ESRC will not accept liability for any complaint or legal action taken against a researcher or its data service providers for infringements of copyrights, defamation or any other data protection requirements.
Data Protection and Freedom of Information

ESRC expect grant holders to adhere to the Data Protection Act 1998[1], which contains eight (enforceable) principles of good practice, applying to anyone processing personal data (and data pertaining to organisations), including the use of personal data in research. Obtaining the data subject's consent is one of those principles; or meeting at least one of the 'necessary' conditions described in the Act.

The ESRC complies with the requirements of the Freedom of Information Act 2000 that establishes a general right of access to all types of recorded information held by public authorities, including Government Departments and Non-Departmental Public Bodies.

If the Principal Investigator does not state to the contrary in the Je-S proposal, it will be assumed that they are willing for their contact details and other relevant information to be shared with the relevant ESRC data service provider.

Ethical considerations

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[1] As of 23 May 2018, DPA 1998 will be replaced by new data protection regulations. ESRC as part of UK Research and Innovation (UKRI) will be refreshing its data policies to account for such legislative changes. In the meantime, ESRC grant holders should be contacting their Research Organisations for advice on how to comply with the new legislation. The Information Commissioner's Office will continue to issue guidance on the new data protection regulations, https://ico.org.uk/
UK Research and Innovation's privacy notice can be found here: https://www.ukri.org/privacy-notice/

In facilitating innovative and high quality research, ESRC requires that the research it supports will be carried out to a high ethical standard. ESRC Framework for Research Ethics sets out expectations and provides a useful guide on how to undertake research ethically ESRC recognises that in some novel research areas, especially when using or gathering data in the public domain, or repurposing administrative, transactional and social media data, informed consent cannot be gained on an individual basis in advance; researchers are then advised to seek data sharing approval as part of their ethical review.

Data Security
The ESRC data service providers' secure access facilities may enable secure remote access to data too sensitive, confidential or potentially disclosive to be made available as open or safeguarded. Data which pose a disclosure risk after anonymisation may still be suitable for secure access infrastructure.

Principle 5
Where a delay in dissemination of deposited data is needed to allow grant holders to publish their research findings, an embargo period can be applied to the data. This embargo period is generally no longer than 12 months from the end of the grant, but may be longer depending on circumstances. The ESRC's data service providers will publish guidelines to ensure transparency.

Principle 6
The intellectual contributions of researchers creating and sharing data can be assured by those researchers, their institutions and the responsible repositories where they deposit data ensuring that persistent information for citation accompanies all deposited data. This supports the Universities UK concordat on research integrity. All users of existing data resources have the responsibility to acknowledge the intellectual ownership of data via formal citation or co-authorship, as may be standard practice in the research domain.

ESRC endorses the RCUK position on the exploitation of research results and positively encourages the exploitation of the results of research it supports, as a contribution to enhance the quality of life, sustainability and competitiveness of the UK. In respect of research grant funding, unless stated otherwise, the ownership of intellectual property and responsibility for its exploitation rests with the organisation carrying out the research. ESRC may, in specific cases, reserve the right to establish alternative ownership arrangements and to arrange for it to be exploited for the national benefit in other ways. If exercised, this condition is included in the terms of the relevant grant.

In taking responsibility for exploiting intellectual property, ESRC expects the research organisation to ensure that individuals associated with the research understand the arrangements for exploitation. Where research is funded by or undertaken in collaboration with others, the research organisation is responsible for putting appropriate formal agreements in place covering the contributions and rights of the various organisations and individuals involved. Such agreements must be in place before the research begins. Research organisations are required to ensure that the terms of collaboration agreements do not conflict with the Terms and Conditions for Research Council Grants.

Principle 7

The use of public funds to support the management and sharing of publicly-funded research data is achieved by grant applicants including the costs of data management and data preparation for sharing in their grant proposal, so that data can be made available for re-use. ESRC funds its data service providers to guarantee (curation and) long-term preservation of all research data deposited by grant holders. Such costs for long-term preservation can therefore not be included in grant proposals.

Principle 8

Researchers should ensure that when they publish research findings, the data that support these findings are deposited at the same time with a responsible digital repository. The publication should reference where the data can be found and accessed so the findings can be verified, ideally via a formal citation.

Principle 9

Researchers should only publish research data with publishers (or responsible digital repositories) that provide persistent information for data, in the form of a persistent identifier. Publishers, responsible digital repositories and data service providers must provide adequate persistent information for the data in their custody.

Roles and Responsibilities

Responsibilities of ESRC grant applicants
ESRC grant applicants must:
- include a statement on data sharing in the relevant section of the Je-S proposal
- If data sharing is deemed impossible, present a strong argument to justify this (ESRC reserves the right to demand additional information and apply sanctions should data not be deposited in a timely manner)
- prepare and submit a data management and sharing plan as an integral part of the proposal
- cost data management and data preparation for sharing into the grant proposal, so that data can be made available for re-use.

A data management and sharing plan will include:
- an explanation of the existing data sources that will be used by the research project, with references
- an analysis of the gaps identified between the currently available and required data for the research
- information on the data that will be produced or accessed by the research project, eg:
- 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
- planned quality assurance and back-up procedures [security/storage]
- plans for management and curation of primary or third party data
- expected difficulties in data sharing, along with measures to overcome these difficulties, explicitly stating which data may be difficult to share and why

- explicit mention of consent, confidentiality, anonymisation and other ethical considerations and, in particular, strategies taken to not preclude further re-use of data
- copyright and intellectual property ownership of the data
- responsibilities for data management and curation within research teams at all participating institutions.

Responsibilities of ESRC grant holders
- implement their data management plan from the first planning stages of the funded project
- address potential issues that could limit data sharing opportunities from the very start of the project, eg ownership, confidentiality, time constraints for data preparation and deposit, etc
- for data obtained from human participants, seek to secure consent for data sharing or alternatively appropriately anonymise the data or discuss secure access mechanisms to make sharing possible
- formally cite any existing data resources being re-used in publications and other research outputs, using persistent identifiers where available
- seek advice and guidance from the relevant ESRC data service provider (currently UK Data Service) at the outset of the project to clarify how issues of confidentiality and sharing are to be addressed
- where relevant report on the on-going implementation of the data management and sharing plan to ESRC
- raise any ad hoc issues that may potentially have an impact on data sharing immediately with the respective ESRC Case Officer so that further guidance and support can be provided
- formally deposit all data created or repurposed during the lifetime of the grant with a responsible data repository within three months of the end of the grant. Data may be lodged with the ESRC data service provider, or an appropriate responsible digital repository such as an institutional repository. The grant holder is responsible for making these data available for re-use following the FAIR data principles (findable, accessible, interoperable, re-usable), with a persistent identifier provided for the data, and to inform the UK Data Service of the published location
- ensure compliance with all laws and other legal instruments regarding data sharing.

Additional responsibilities of large grants, research centres and long-term investments
Research centres and long-term ESRC investments typically manage multiple research data collections at different stages of the research process over a longer time period, therefore additional responsibilities are required:
- keep track of all data assets generated by researchers within the investment
- coordinate data management best practices across the investment
- coordinate data deposits in a timely manner throughout the duration of the investment.

Responsibilities of grant holders' institutions
- ensure ESRC grant holders comply fully with this research data policy
- provide guidance and input to grant applicants for preparing a data management and sharing plan

- provide guidance and advice to ESRC grant holders on implementing data management and sharing plans
- ensure all ESRC-funded projects adhere to their plan throughout the life of their funding
- advise grant holders on training and capacity building activities in data management and sharing undertaken by themselves or by the ESRC data service providers
- where research data are archived in the institutional repository or another responsible digital repository, ensure that these data are FAIR (findable, accessible, interoperable, re-useable), with persistent information provided for the data.

Responsibilities of the ESRC
- provide clear guidance to assist grant applicants in the preparation of data management and sharing plans for their research projects
- assess data management and sharing plans via peer review and assessment processes (a grant proposal will first and foremost be assessed on grounds of its scientific merit, but an assessment of the adequacy of the data management and sharing plan will be included in the general review of the proposal)
- provide guidance for grant holders on effective implementation of data management and sharing plans through the research lifecycle, via the data service providers
- apply sanctions, eg withholding the final payment of a grant, if data have not been deposited for archiving to the required standard within three months of the end of the grant
- reserve the right to grant exceptions to data deposit only where sufficient evidence has been given demonstrating that data cannot be shared, and every attempt to overcome any problems has been made. Not asking for consent to share data is not an acceptable reason unless consciously approved during ethical review
- facilitate curation and long-term preservation of data that have been deposited with its data service providers
- wherever possible, follow international best practice for its responsibilities as a data owner. To this end the ESRC will publish and maintain a register of all data collections for which it is responsible, together with appropriate metadata, and terms and conditions of access.

Responsibilities of the ESRC data service providers
- ensure long-term access to data which have been placed in their care, according the FAIR data principles (findable, accessible, interoperable, re-usable), with persistent identifiers attached and a citation standard provided
- provide guidance, advice and training to ESRC grant holders on implementing good data management and sharing practices, in particular on issues related to confidentiality, security and ethics in data sharing and re-use, how data archiving can be discussed with research participants and data preparation standards for re-use
- where relevant contact grant holders to ascertain the quality of the data management and sharing plan and offer guidance on its improvement
- provide guidance and advice to responsible digital repositories on data documentation and metadata standards, standards for data curation, data discoverability and rights management for research data and accessibility.

References
All references current on 30 November 2014

Copyright, Designs and Patents Act 1998
Available at: http://www.opsi.gov.uk/acts/acts1988/ukpga_19880048_en_1.htm

Data Protection Act 1998
Available at: http://www.opsi.gov.uk/acts/acts1998/ukpga_19980029_en_1

ESRC Framework for Research Ethics
Available at: http://www.esrc.ac.uk/about-esrc/information/framework-for-research-ethics/

FAIR data Guiding Principles
Available at: https://www.force11.org/group/fairgroup/fairprinciples

Freedom of Information Act 2000
Available at: http://www.opsi.gov.uk/acts/acts2000/ukpga_20000036_en_1

RCUK Common Principles on Data Policy
Available at: http://www.rcuk.ac.uk/research/datapolicy/

RCUK Impact Policies
Available at: http://www.rcuk.ac.uk/ke/policies/

RCUK Terms and Conditions of Grants
http://www.rcuk.ac.uk/RCUK-prod/assets/documents/documents/tcfec.pdf

Universities UK Concordat to Support Research Integrity
Available at:
http://www.universitiesuk.ac.uk/highereducation/Documents/2012/TheConcordatToSupport
ResearchIntegrity.pdf

General Guidance on Research Data Management is available at:
http://ukdataservice.ac.uk/manage-data/plan.aspx

Specific Advice for ESRC applicants is available at:
http://ukdataservice.ac.uk/manage-data/plan/dmp-esrc.aspx

Guidance on depositing data can be found at:
http://ukdataservice.ac.uk/deposit-data.aspx