UK Research and Innovation

Draft UKRI research data policy

Published: 9 April 2025

About this draft policy

This draft version of UKRI's research data policy is subject to change.

UKRI is consulting on this policy between April and July 2025. The final version will replace UKRI's existing research data common principles and council-specific policies in 2026.

Applicants for UKRI funding and award holders must continue to follow UKRI's existing common principles and research council data policies.

UKRI is taking a modular approach to developing this policy and supporting guidance. Boxes in this document explain content that UKRI will develop over the course of 2025.

Further information about this policy and how to provide feedback can be found on **UKRI's engagement hub**.

Contents

Purpose of this policy

Policy statement

This policy sets out UK Research and Innovation's (UKRI) expectations for sharing and managing research data and other research-relevant digital objects, including metadata, algorithms, software, code and workflows.

Good data sharing and management enables high quality research and a collaborative, open and sustainable research environment. It supports reproducibility and transparency, ensuring integrity and trust in research. It also facilitates efficient and new research and innovation, through enabling reuse. This benefits research and innovation and its impact on society.

Who this policy is for

Individuals and organisations applying for funding or funded by UKRI. Further detail is provided under **what this policy covers**.

Policy objectives

This policy aims to promote a research culture and environment where:

- good data sharing and management is an expected and normal part of the research process, and there are activities and resources in place to support this
- publicly funded research data is made as open as possible, maximising its value for research, innovation and wider society
- data sharing is conducted fairly, safely, transparently and in accordance with applicable ethical standards, policy, security and legal requirements
- everyone involved in the research process can adopt, develop and implement good research data practice and receive recognition for doing so
- barriers that unnecessarily prevent or restrict data sharing are recognised and appropriate steps are taken to mitigate these

This policy supports the implementation of wider commitments to open research, including **concordat on open research data**, **OECD recommendation concerning access to research data from public funding** and **UNESCO recommendation on open science**.

What this policy covers

In-scope UKRI funded research

This UKRI-wide policy applies to UK and overseas individuals and organisations applying for funding or undertaking research activities funded by:

- our research councils
- cross-council and UKRI-wide funding schemes (for example Future Leaders Fellowships and cross research council responsive mode)
- Research England (some funding)
- Innovate UK (some funding)

Supplementary information about in-scope UKRI funded activities is provided at **Annex 1**.

Where a UKRI funded activity falls out-of-scope, good practice in line with this policy's principles and **concordat on open research data** is strongly encouraged.

In-scope research objects

This policy will include requirements, expectations and guidance relating to the following research objects:

- research data collected or generated as part of in-scope UKRI funded research
- research data underpinning published research findings and outputs arising from in-scope UKRI funded research, whatever the source of that data
- other research-relevant digital objects, including algorithms, software, code and workflows arising from in-scope UKRI funded research
- descriptive metadata and documentation associated with in-scope research data and other research-relevant digital objects

These research objects are further defined under **definitions**.

Algorithms, software, code and workflows

This draft policy currently only covers principles and requirements relating to research data and associated metadata.

UKRI will develop this policy's expectations and guidance for algorithms, software, code and workflows over the course of 2025, in consultation with stakeholders.

How to use this policy

The final version of this policy will comprise:

- **common policy principles and requirements** for all in-scope UKRI funded research
- **supplementary guidance modules** detailing specific requirements and guidance for some types of research and data

Data- and domain-specific requirements and guidance

This draft policy currently only includes common policy principles and requirements.

In consultation with stakeholders, UKRI will be developing the following data- and domain-specific supplementary requirements and guidance modules over the course of 2025:

- arts and humanities data
- environmental data
- social science data
- biomedical and health data
- UKRI research facilities and centres
- research data about people

These modules will build on requirements and guidance from research council policies that are specific to some domains and data types. However, it is intended they will apply to any relevant UKRI-funded research. This recognises different UKRI councils and schemes may support similar types of research and data.

UKRI is not developing modules for all domains and types of data, only those where it is essential to state specific requirements and guidance above and beyond the common policy expectations and accepted community practice and resources.

Guidance modules will be integrated appropriately with the core policy, enabling users to clearly understand UKRI's common expectations, together with any applicable domain-specific requirements and guidance.

UKRI intends to signpost external resources where appropriate, including via its **good research resource hub**.

Associated policies

- **UKRI open access policy for research publications**
- **UKRI trusted research and innovation principles**
- **BBSRC guidance on biological resources**

Other relevant policies and guidance can be found in UKRI's **good research resource hub**.

Definitions

Research data: Factual records (such as numerical scores, textual records, sound and image files) resulting from research or used as primary sources for research, and that are commonly accepted in the research community as necessary to validate research findings. This includes

data about physical objects (for example specimens, laboratory examples and biological resources such as bacterial cultures or experimental animals).

Research-relevant digital objects: metadata, algorithms, workflows, models, and software (including code) resulting from research, which are used in a research and development context.

Algorithms: the computational steps and rules to be followed in calculations or other problem-solving operations, especially by a computer.

Code: source code, that is, a set of human-readable computer program instructions that expresses an algorithm so that it can be executed by a computer.

Metadata: data about data. It is data (or information) that defines and describes the characteristics of other data. It is used to improve the understanding and use of the data.

Models: digital representations of real or intended physical objects, processes or systems.

Software: refers both to code, and to executable files and libraries that are produced from source code.

Workflows: a precise description of the steps of a method used to generate research results using analogue (such as clinical protocols or anthropological interviews) and digital resources (such as data and code, including parameter settings, random number seeds, data and software dependencies, and code invocation sequences). Scientific workflow descriptions are often interpreted and executed by workflow management software that manages code access and execution, data access and movement, logging, and error handling.

Data management: the part of the research process that deals with organisation, preparation and handling of research data. This includes data management planning, structured storing, description, curation, preservation and provision of metadata and complementary algorithms, code, software, and workflows, and compliance with internal, national and international privacy legislation.

Data sharing: practice of making data available for checking, reproducing or reusing.

FAIR data principles: set of **guiding principles** to make data findable, accessible, interoperable, and reusable (FAIR).

Some of these definitions are adapted from the **OECD recommendation concerning access to research data from public funding** and **CODATA RDM Terminology**.

In this policy:

- '**must**' denotes a mandated requirement, which when not fulfilled and in the absence of a reason acceptable to UKRI, is a breach of this policy
- '**should**' and '**encourage**' is used with principles and actions that represent best practice and form part of this policy but are not mandated requirements

Key principles

These principles outline UKRI's high-level expectations. Requirements and guidance are detailed in subsequent sections of this policy.

Making data as open as possible

Research data necessary to understand and validate published research findings or assessed to have wider long-term reuse value for research and innovation, must be shared as openly as possible, in a timely and responsible manner. This is to support the transparency, integrity, reuse and public benefit of UKRI funded research.

Responsibly sharing and managing data

Data must be managed, shared and reused responsibly, in line with relevant legal, policy and ethical standards. Where data needs to be shared more securely or restricted, this must be justified and justifiable.

Making data FAIR

Research data must be shared and curated in line with accepted domain-specific standards, formats and practices that make them FAIR. Data must be deposited in an appropriate repository, with globally unique and persistent identifiers, and adequate contextual metadata and documentation that is FAIR. This is to the support the quality, integrity and reuse value of data.

Appropriately preserving and retaining data

Data underpinning published findings, or having long-term reuse value, or which are subject to legal retention requirements, must be preserved for an appropriate period. Due regard should be given to deciding what data (versions) and other associated digital objects need to be retained and for how long, considering factors such as the value of the data, domain-specific standards and practices, legal requirements, environmental sustainability and relative costs of regenerating data.

Acknowledging and recognising contributions

All those involved in generating, curating, analysing and sharing data should receive appropriate recognition by funders, research organisations and other data users. Shared data must have adequate and persistent identifiers to enable data reusers to cite data sources, and for those involved in the research to include references in reports and funding applications. Those reusing data must appropriately cite data sources used.

Planning for data sharing and management

Adequate consideration must be given to data sharing and management throughout the research lifecycle. A data management plan should be used to support this and UKRI may require one to be provided as part of funding applications and reviews. Project and organisational data management plans, policies and practices must align with the policy.

Resourcing data management and sharing

It is appropriate to use public funds to support the management and sharing of publicly funded research data and UKRI supports this through a variety of mechanisms.

Planning research

Data sharing and management must be considered from the outset when planning research, including resourcing and any applicable legal, ethical, security and intellectual property considerations, as detailed under **responsible data sharing**.

Data management plans

UKRI will review its expectations for data management plans over the course of 2025, in consultation with stakeholders. This will ensure an approach that best supports the aims and implementation of this new UKRI-wide policy. Updated expectations and guidance will be published with the final policy.

Where research councils currently request data sharing and management plans with funding applications, this is expected to continue under the new policy.

Support for costs

UKRI will review its guidance about funding for data sharing and management costs over the course of 2025, in consultation with stakeholders. This will ensure our guidance best supports the aims and implementation of this new UKRI-wide policy. Updated guidance will be published with the final policy.

Data reuse

UKRI strongly encourages the reuse of existing data for research and innovation. When planning research, researchers should consider if there are existing sources of data that could be used, before committing to primary data collection.

What data to share

The following data must be shared in a timely and responsible manner:

- research data and associated metadata necessary to understand and validate published findings (or other forms of research output)
- research data and associated metadata with identified long-term reuse value for research and innovation (as identified by UKRI or in line with established domain-specific practices and standards)

Other research data of potential reuse value should be shared wherever it is appropriate and cost-effective to do so.

The specific data (or versions of) to share should be determined based on established practices and standards for the research domain and type of data. Applicable supplementary guidance in this policy must be followed.

Data must be shared as openly as possible, unless there is a valid reason for them to be made available in a more secure way or restricted, as detailed under **responsible data sharing**.

To support data to be FAIR, they must be shared:

- in an appropriate repository
- in an appropriate format
- with adequate contextual metadata and documentation
- with an appropriate licence, detailing terms of reuse
- with adequate global persistent identifiers
- with a sufficient data access statement in each associated research publication

These expectations are detailed under **where to share data** and **implementing FAIR data**.

When to share data

Data necessary to understand and validate published findings (or other types of research output) must be shared no later than the time of publication.

Unless specified otherwise in supplementary guidance, all data not reported elsewhere must be shared within a maximum two years of the end of UKRI funding. A longer period may be permitted if justified by the requirements of the research.

A limited period of exclusive use of data collected and analysed is reasonable in recognition of researchers' intellectual contribution and for the research team to have first opportunity to publish or otherwise exploit the results of their research. Details must be outlined in the relevant data management plan.

Any period of exclusive use must be balanced against the public interest in releasing data, considering the wider value of the data, research methodology, and domain-specific standards and best practice. Data could also be subject to freedom of information requests.

Supplementary guidance on when to share data

UKRI recognises that there may be certain circumstances where a longer period of exclusive use may be justified, for example in the context of some large research collaborations or completing a PhD. UKRI will be developing updated supplementary guidance to support decision-making about when to share data.

To support good curation and discoverability, even where data cannot be shared immediately:

- they should be curated to the same standard as if they were, which could include depositing the data in a repository as early as possible under an embargo
- a FAIR metadata record describing the data must still be shared in a timely manner (also see '**metadata and documentation**' below)

Where to share data

To support data to be FAIR, research data and associated metadata must be shared in a suitable repository.

The final version of this policy will have specific deposit requirements for some types of research and data.

For other types of research and data, an appropriate subject-specific, institutional or third-party generalist repository **must** be used.

The chosen repository should be one that will best support curation and potential reuse for the given type of research data. Community standards and institutional policies about where data should be deposited should be observed.

UKRI recognises that some data, such as confidential and sensitive data about individuals, may need to be more securely held and managed in a trusted research environment.

Supplementary deposit requirements and guidance

The following supplementary guidance modules, in development, will include domain-specific deposit requirements:

- environmental data (building on NERC's current policy)
- social science (building on ESRC's current policy)
- arts and humanities (new requirements relating to **Heritage Science Data Service**)

As part of our consultation on this draft policy, UKRI will consider if it should provide any additional general guidance on choosing an appropriate repository.

Implementing FAIR data

Research data must be shared and curated in line with accepted domain-specific standards, formats and practices that make them FAIR.

Persistent identifiers

To support research data to be FAIR and properly cited, the data and supporting metadata must be assigned globally unique and persistent identifiers, for example a Digital Object Identifier (DOI). Also see **acknowledgement and recognition**.

Licences for data reuse

Research data must be released with a clear and accessible data usage licence, so that it is clear to others under what conditions the data can be reused.

An open, machine-actionable licence (for example a **Creative Commons** licence) should be used, where possible. Licences must only include restrictions on reuse where there are valid reasons for this (see **responsible data sharing**).

Data formats

To maximise the potential for reuse, where possible, data should be generated, managed and shared using widely accepted non-proprietary formats. However, UKRI recognises that for some research use of a proprietary format may be preferable (for example some social science research).

Metadata and documentation

Research data must made shareable with adequate contextual documentation and metadata, to enable others to discover and find data, reasonably understand why, when and how they were generated, and know how to access them. To support FAIR, published metadata:

- must be machine-actionable
- must be freely findable and accessible in an appropriate repository or registry
- must include a global persistent identifier linking to the associated research data
- should be assigned a licence that permits their full reuse
- should identify any licences applicable to reuse of the research data

Standards for metadata and documentation must follow any applicable supplementary guidance for this policy and should align with domain-relevant community standards and practices.

Data access statement

In line with the **UKRI open access policy**, peer-reviewed publications must include a data access statement (also referred to as a data availability statement). This must include sufficient information to allow others to understand how to access the underlying data, including where this is restricted; this could include linking to a metadata record that provides this information.

Acknowledgement and recognition

The contributions of those who are involved in generating, processing, curating and analysing data should be acknowledged and recognised.

To increase visibility and recognition, and support citation, these contributions must be appropriately acknowledged and recorded in research publications and datasets.

Adequate and permanent references to contributions should be provided in publications (for example **Contributor Roles Taxonomy (CRediT)**).

The metadata record for a dataset should include persistent identifiers for individual contributors and organisations, where available (for example **Open Researcher and Contributor ID (ORCID)**, **Research Organization Registry (ROR) IDs**).

Citing and reusing data

Data users must appropriately cite data sources using citation information provided by data providers, including persistent identifiers.

Data users must follow legal, ethical or regulatory frameworks and observe any other policy or licensing restrictions that apply to data they are using.

Data retention and preservation

Research data should be subjected to an appropriate risk- and value-proportionate assessment to determine if they need to be retained and for how long.

Applicable requirements in this policy and its guidance, and any legal requirements for data retention (for example data protection law and Clinical Trials Regulation), must be followed.

Data needed to validate published findings must be accessible for at least ten years after publication of those findings, or last known reuse of the data (whichever is later).

Data that cannot be, or are hard to reproduce, and that are of acknowledged value for future study and reuse (for example observational and time-series data) should be curated to remain accessible for future research and may warrant indefinite storage and preservation.

UKRI recognises that it may not be cost-effective or environmentally sustainable to (indefinitely) preserve all research data. Provided there is due assessment, UKRI considers a deliberate decision to dispose of research data at an appropriate time as acceptable.

Metadata records referring to deleted data must be retained, ideally with a note explaining that the data has been deleted and why.

Good practice guidance on data retention and preservation

In consultation with stakeholders, UKRI will develop and/or signpost good practice guidance to inform decision making about data retention and preservation.

Responsible data sharing

Legal, regulatory, security, ethical and intellectual property requirements and standards that concern data sharing and management must be planned for, managed and adhered to throughout the research lifecycle. Appropriate project and organisational plans, policies, and governance must be in place to support this.

UKRI recognises these considerations may necessitate some research data being shared more securely or restricted, although applying unnecessary restrictions on data accessibility and discovery must be avoided (see **managing restrictions on data sharing**).

Guidance on data about people

UKRI will develop specific guidance concerning confidential and sensitive data about people over the course of 2025, in consultation with stakeholders. This guidance will be included in the final version of this policy. It will build on current research council policies, including the **MRC Data Sharing Policy** and **ESRC research data policy**.

Partnerships and collaborations

UKRI encourages researchers to work in productive, equitable partnerships, for example, with other research organisations, charities and industry, including when sharing data.

Data access, ownership and sharing arrangements must be set out in research collaboration agreements and data sharing agreements, where applicable. Necessary clearances should be sought from collaborators before sharing data.

Data sharing involving commercial or non-UK based organisations must conform to the same principles and practices as the UK academic community, including relevant UK legislation (see **trusted research and innovation** and **legislation and regulation**).

UKRI recognises that where it funds academic research jointly with a commercial partner, data provided by the commercial partner may need to be restricted for commercial reasons.

Trusted research and innovation

Organisations funded by UKRI must undertake appropriate due diligence for international collaboration and before openly sharing research data. The **UKRI trusted research and innovation principles** set out UKRI's expectations, including in relation to data access and sharing. UKRI's **good research resource hub** provides information about relevant UK legislation.

Legislation and regulation

Research organisations must ensure they are aware of relevant legislation and support their researchers in complying with these. Some relevant legislation and regulatory frameworks include:

- UK General Data Protection Regulation
- Data Protection Act (2018)
- Freedom of Information Act and Freedom of Information Act Scotland
- Environmental Regulations and Environmental Information (Scotland) Regulations
- Common Law Duty of Confidentiality
- National Security and Investment Act (2021)
- trade sanctions and export controls
- intellectual property and copyright law

Intellectual property

Intellectual property relating to data must be suitably protected and managed. Delays or restrictions on data sharing due to managing intellectual property are permissible but must be minimised as far as possible.

Ownership of the data generated from the research that UKRI funds resides with the research organisation and/or researchers that generate it, unless specified otherwise by UKRI under grant terms and conditions.

Ethics

UKRI recognises that there may be ethical reasons to share data more securely or make them restricted. This will apply to certain types of data concerning people. It may also apply to other data where a more cautious, risk-based approach to data sharing is needed (for example data identifying the location of protected species, or research with dual use potential).

For appliable research, due regard should be given to:

- **CARE Principles for Indigenous Data Governance**
- **Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity**
- **UK screening guidance on synthetic nucleic acids for users and providers**

Managing restrictions on data sharing

UKRI recognises that for legal, ethical, security or contractual reasons, some data cannot be shared beyond the primary research team. When this is the case:

- the reasons should be made clear in funding proposals and data access statements
- due consideration must be given to enabling more limited or secure forms of access
- FAIR metadata describing the dataset should still be shared in an appropriate repository, if permitted
- published metadata and data access statements should, if permitted, give the reason why the data are restricted and summarise any considerations that may need to be satisfied for access to be granted

Tiers of data sensitivity and confidentiality should be considered when assessing options for sharing data. It may be possible to anonymise some record-level data for onward sharing through de-identification and data perturbation, for example. Where it is not possible to usefully anonymise data, they be made accessible via a trusted research environment.

Project design should consider the widest range of potential uses of data and seek to establish broad and enduring legal avenues for data sharing. For example:

- when consent needs to be obtained to share data collected from people, the consent should reflect this policy as far as possible
- if permission is needed to reuse data owned by another person or organisation, all anticipated data sharing should be discussed and agreed with the data provider as early as possible

Cost recovery

Cost recovery for data sharing may be acceptable in some circumstances. Clarification of when and in what scenarios will be developed.

Failure to comply

Compliance and monitoring guidance

In consultation with stakeholders, UKRI will be developing its approach to compliance monitoring and evaluation for this policy over the course of 2025 and will publish this information in due course.

UKRI will focus on supporting individuals and organisations to meet policy expectations. It may also be necessary to retain some council-specific differences in monitoring and compliance.

Annex 1: supplementary information on policy scope

Research councils

The UKRI Research Data Policy covers all UKRI's research councils, including:

- Arts and Humanities Research Council (AHRC)
- Biotechnology and Biological Sciences Research Council (BBSRC)
- Engineering and Physical Sciences Research Council (EPSRC)
- Economic and Social Science Research Council (ESRC)
- Medical Research Council (MRC)
- Natural Environment Research Council (NERC)
- Science and Technology Facilitates Council (STFC)

This policy applies to research data arising from training grants.

By default, this policy applies to UKRI funded research centres and consortia. UKRI will advise if there are any variations in how this policy applies to such investments.

UKRI facilities, institutes and centres

This policy applies to research undertaken by a UKRI research centre, where the research is UKRI funded.

It does **not** apply to users of UKRI research facilities who are not funded by UKRI. However, a facility's own data policy may still apply.

It does **not** apply to data resulting from or relating to work carried out by UKRI funded centres under contract/service level agreements with other organisations (for example data arising from commercial use of facility beam time). Policy regarding such data is the responsibility of the contracting organisation.

> **Guidance for UKRI facilities and centres**
>
> UKRI will be undertaking further consultation with its facilities, centres and relevant stakeholders about this core policy and development of supplementary guidance.

Innovate UK

As outlined at **partnerships and collaborations**, this policy recognises that some research data may need to be shared more securely or restricted for commercial reasons. Where research publications arising from Innovate UK funding need to be made open access (see **Annex 1 of the UKRI open access policy**), the research data and associated metadata needed

to understand and validate published findings must be managed and shared in line with the UKRI research data policy.

Unless detailed in guidance for funding opportunities, other Innovate UK funding is not in-scope of this policy. However, UKRI still strongly encourages good practice, in line with this policy's principles and the **concordat on open research data**.

Research England

Most Research England funding is deployed by universities at their discretion and is not intended to lead to specified outputs. In such cases, outputs cannot be attributed directly to Research England funding and no acknowledgement of Research England funding is expected or necessary. Such outputs are therefore out of scope of the UKRI research data policy.

Where Research England funding is given for particular purposes, and that funding leads directly to particular research outputs, those outputs are subject to the UKRI research data policy, and providers are required to include acknowledgement of Research England's funding. This is specified in the terms and conditions of each competitive scheme.

Where Research England funding is out-of-scope of this policy, good practice in line with this policy's principles and the concordat on open research data is strongly encouraged.

International research

This policy applies to in-scope UKRI funded activities (and applications for funding), irrespective of whether they take place in the UK or in other countries.

Where UKRI is a subscribing partner to an external organisation (for example CERN, ESO), or involved in other internationally agreed collaborations, the expectation is UKRI will seek to ensure that the organisation has a research data policy, and that it is sufficiently compatible with UKRI's policy.

For other international projects co-funded by UKRI, the awarding council will advise if there are any exemptions or variations with respect to how this policy applies.

Other exceptions

Given the diversity of UKRI funded activities, some funding opportunities and investments may specifically detail how to follow this policy or provide additional expectations.

Data in times of crisis

UKRI is following the development of the **UNESCO-CODATA Data Policy for Times of Crisis Facilitated by Open Science** project, and may consider introducing additional

requirements and guidance into a future version of this policy. UKRI introduced specific data sharing requirements for its COVID-19 funding opportunities, for example.