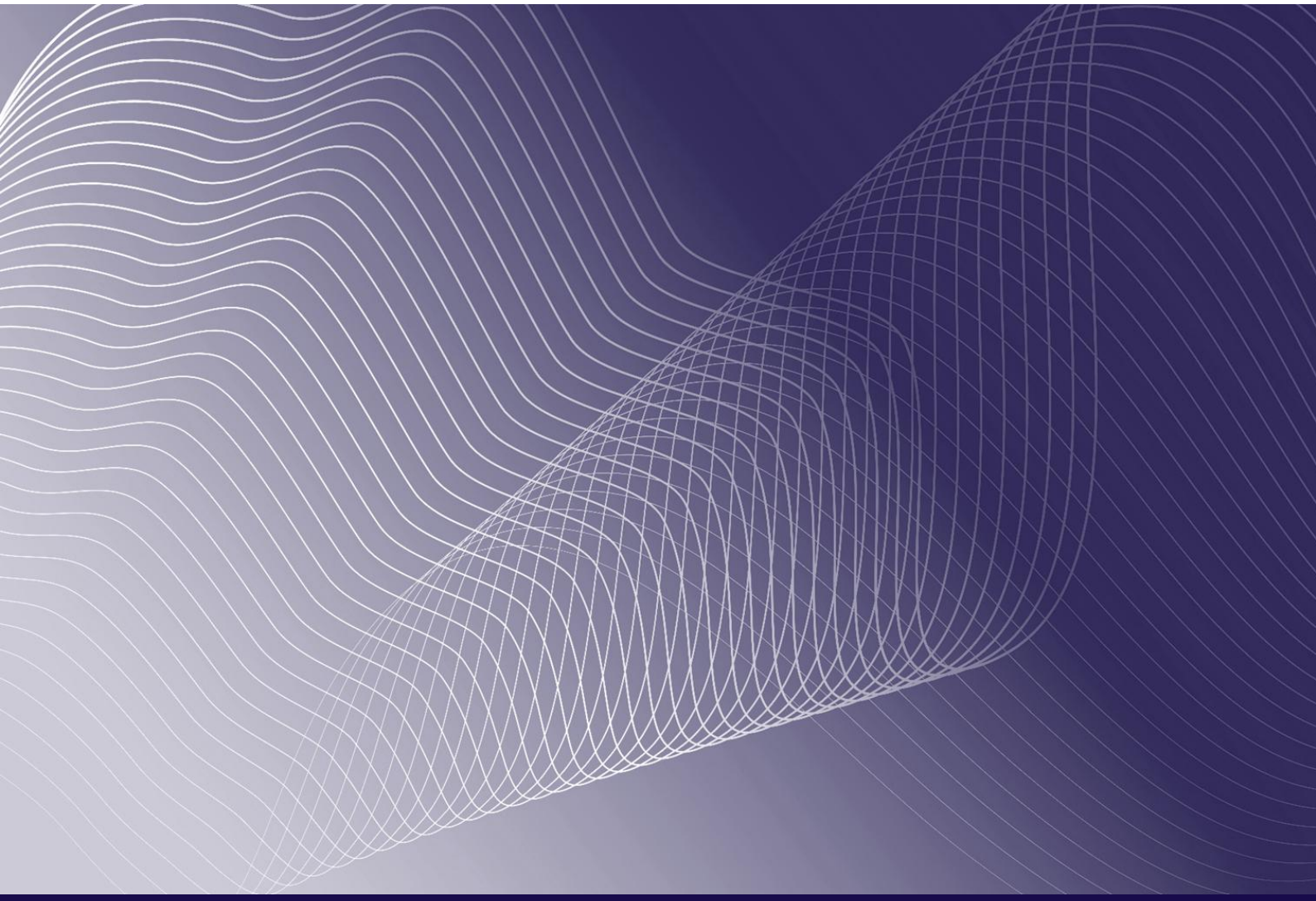
Research Consulting

UK Research and Innovation



A Pan-UKRI Approach to Data Management Plans

Supporting the implementation of UKRI's new research data policy

Prepared for UK Research and Innovation (UKRI)

June 2026

www.research-consulting.com

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Executive Summary

Background and approach

UKRI commissioned Research Consulting to conduct an independent review of how data management plans (DMPs) are currently used across the UKRI-funded research landscape, with a view to developing a coherent pan-UKRI approach to support the implementation of UKRI's new research data policy. The review drew on desk research, 59 qualitative interviews (including 19 with UKRI council representatives), and two mixed-stakeholder focus groups, engaging 71 contributors in total across research funders, research performing organisations, researchers, publishers, and infrastructure providers.

The current landscape within UKRI

Approaches to DMPs across UKRI's constituent bodies vary significantly, reflecting the semi-independent policy development that preceded UKRI's formation. The review identified two broad models. Most councils (AHRC, BBSRC, EPSRC, MRC, and STFC) follow a "front-loaded" approach: applicants submit a statement at the application stage, but face no requirement to update or revisit it during the project, and there is very limited monitoring of whether intentions translate into practice. In contrast, ESRC and NERC take a more hands-on approach, requiring full DMPs after award, expecting updates during projects, and drawing on dedicated data infrastructure (the UK Data Service and NERC Environmental Data Service, respectively) to provide support and monitor compliance. Cross-council schemes present additional challenges, as DMP expectations may be difficult to navigate based on the mix of disciplinary customs and the requirements of the lead funder.

The introduction of The Funding Service (TFS) has brought a degree of consistency to the application process by providing a single portal to submit information on research data management and sharing, but it has not reduced the underlying variation in what is asked for across different opportunities. International benchmarking revealed that other European funders are starting to use consistent templates (in the form of the Science Europe Core Requirements) and to defer the requirement for a detailed DMP until after funding is confirmed, on the grounds that detailed planning should not be imposed on the large number of applicants who will ultimately be unsuccessful.

Key findings from the research community

Stakeholders broadly recognised the value of DMPs as planning tools, but described a system in which they have, over time, become compliance exercises rather than instruments of good

research practice. Several structural factors underpin this, which are not unique to UKRI and are widely recognised internationally:

Factor	Description
Timing and format of requirements	• Word limits applied through TFS produce statements that are too brief to serve as practical guides once a project is underway, and unstructured narrative prompts encourage generic responses. • Requirements are largely undifferentiated by the features of the project: a straightforward project generating a single dataset faces broadly similar expectations to one involving sensitive personal data, multiple international partners, or specialist infrastructure.
Assessment of DMPs	• Grant peer reviewers often lack guidance on what constitutes a sound approach to data management, and DMPs rarely affect funding decisions even where they are weak. • The costing of data management presents practical difficulties, with researchers often reluctant to include visible costs in applications and institutions facing a structural mismatch between project-bounded funding and the long-term costs of data preservation and stewardship. • The result is a self-reinforcing cycle: limited scrutiny leads to low researcher effort, which in turn reinforces indifference from reviewers.
Use of DMPs throughout the research lifecycle	• Despite being framed by many funders as "living documents," plans are commonly completed at the point of application and not revisited during the lifetime of the project. • Institutional support for data management tends to concentrate at the beginning and end of the project lifecycle, with limited capacity for engagement during active research. Data stewardship could bridge this gap, but remains an unevenly distributed and often precariously funded function across the sector.
Limited accountability at the end of the grant	• For most UKRI-funded research, there is no structured process to verify whether commitments made in a DMP were carried out, and information about data deposits does not flow back systematically from repositories or publishers to funders.

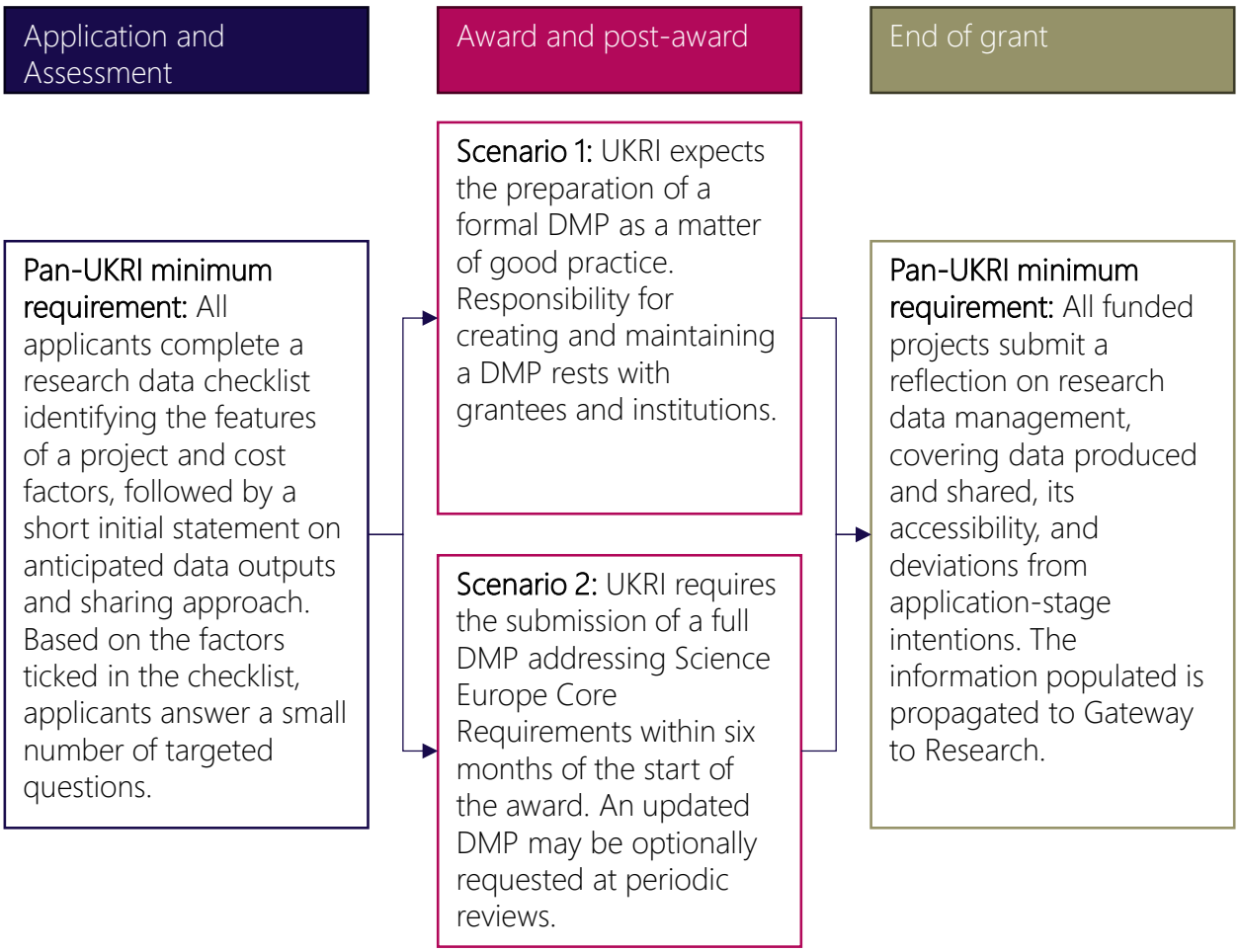
These challenges are compounded by disciplinary context and career stage. The language and frameworks of data management are oriented towards scientific and data-intensive disciplines, and may not resonate with researchers in arts, humanities, and qualitative social sciences. Early-career researchers frequently encounter funder DMP requirements for the first time without

systematic training, and institutional support for DMP preparation varies from dedicated teams of several staff to a fraction of a single post.

A pan-UKRI framework for DMP requirements

Building on the evidence collected from within UKRI and the research community, the review developed five foundational considerations to guide a revised approach: alignment with UKRI's research data policy; timing requirements to points in the lifecycle where they are most actionable; proportionality to the features and complexity of a project; structured flexibility that balances pan-UKRI consistency with disciplinary variation; and adequate resourcing across UKRI, institutions, and research teams. The proposed framework translates these considerations into a set of potential requirements organised around the grant lifecycle.

High-level summary of our proposed framework for DMP requirements.



At the *application and assessment stage*, the framework establishes a pan-UKRI minimum requirement comprising a concise research data checklist (identifying factors that may give rise to complexity or cost), a short statement on anticipated data outputs and sharing approach (up to 250 words), and a small number of targeted questions triggered by checklist responses. This

approach is designed to enable peer review and cost capture whilst minimising burden on applicants and avoiding the boilerplate submissions. To support consistent assessment, the framework calls for the development of standardised rubrics and reviewer guidance, alongside cross-council coordination mechanisms for complex or interdisciplinary opportunities. At the *award and post-award stages*, the framework introduces structured flexibility through two scenarios. For the majority of funding opportunities, UKRI would set a clear expectation that DMPs are prepared as a matter of good research practice, with responsibility resting with grantees and their institutions. For opportunities that make use of UKRI-run data repositories or that involve unusually high complexity in research data management, a full DMP addressing the Science Europe Core Requirements would be required within six months of the award start date, with supplementary guidance provided where needed. At the *end-of-grant stage*, the framework re-establishes a pan-UKRI minimum requirement: a structured reflection on data management outcomes, covering what data was produced, where it was deposited, and any material deviations from application-stage intentions. This reflection would be captured via ResearchFish (or an equivalent mechanism) and propagated to Gateway to Research to support transparency, monitoring, and evaluation.

Conclusions

The challenge facing UKRI is not that DMPs are unimportant, but that the system and incentives around them have turned what should be an integrated part of good research practice into an administrative exercise. The proposed framework seeks to address this by shifting emphasis from process compliance to accountability for outcomes: rather than asking whether a DMP was submitted, it asks whether research data was considered, managed, and shared effectively. In doing so, it recognises that the locus of responsibility for active research data management lies with researchers and institutions, and that requiring formal plans where there is no funder capacity to engage with them meaningfully does not improve practice. The short-term changes proposed in this report are ambitious but achievable within current infrastructure and capacity. Their success, however, depends on several factors that extend beyond the framework itself:

- Institutionally, the significant variation in data management support capacity remains a barrier: without sustained investment in professional services, training, and data stewardship, even well-designed requirements risk being undermined by the same resource constraints that limit the current system.
- Culturally, the shift from compliance to embedded good practice requires sustained engagement with researchers, particularly in disciplines and career stages where data management concepts are less familiar.
- Operationally, UKRI will need to develop robust monitoring and evaluation mechanisms to assess whether the framework is achieving its intended outcomes, including establishing baselines against which progress can be measured.

The move towards a pan-UKRI research data policy represents an opportunity to contribute to the broader international effort to make research data management more effective. The evidence

collected through this review suggests that the appetite for change exists across the research community: realising it will require sustained commitment from UKRI, institutions, and researchers alike.

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1. Introduction

1.1 Background

In 2024, UKRI announced the development of a new research data policy to update and streamline expectations for sharing and managing research data and other research-relevant digital objects arising from UKRI-funded research. This policy will apply to research funded by the seven disciplinary research councils, Research England, and Innovate UK, as well as to cross-UKRI schemes.

Following consultation with stakeholders in 2025, UKRI is currently finalising the policy, developing guidance, and looking at mechanisms to support implementation, including reviewing its approach to data management plans (DMPs).

What is a Data Management Plan?

A data management plan (DMP) is a formal document that describes how research data will be handled both during and after a research project. It sets out what data will be collected or created (including the types, formats, and volumes involved) alongside how that data will be organised, documented, and kept secure throughout the project lifecycle. DMPs also address who can access the data and under what conditions, covering any restrictions that may apply for reasons of confidentiality, commercial sensitivity, or research ethics, as well as the licensing terms governing reuse.

Beyond the active project period, a DMP specifies what will happen to the data once the research concludes, for example whether it will be deposited in a repository, how long it will be retained, and who holds ongoing responsibility for it.

Funders and institutions around the world, including research councils within UKRI, increasingly require DMPs as a condition of grant funding and good research practice. Rather than a one-off exercise, a DMP is intended to be updated as the project evolves, to reflect any changes in how data is being collected, managed, or shared.

DMPs are recognised as critical tools to help maximise the value of data arising from funded research and to support an open research and innovation culture across the research landscape.

UKRI commissioned Research Consulting to conduct an independent review to understand how DMPs are currently used, what challenges exist, and how UKRI might refine its approach to support best practices.

This report presents the findings from extensive desk research and engagement with 71 stakeholders across the research ecosystem, including research funders, research performing organisations, researchers, publishers, and infrastructure providers.

1.2 Methodology

This study followed a Double Diamond approach (Figure 1), drawing on multiple data sources including desk research, qualitative interviews and focus groups, and workshop-based co-design to triangulate findings and develop grounded recommendations.

The project developed as follows:

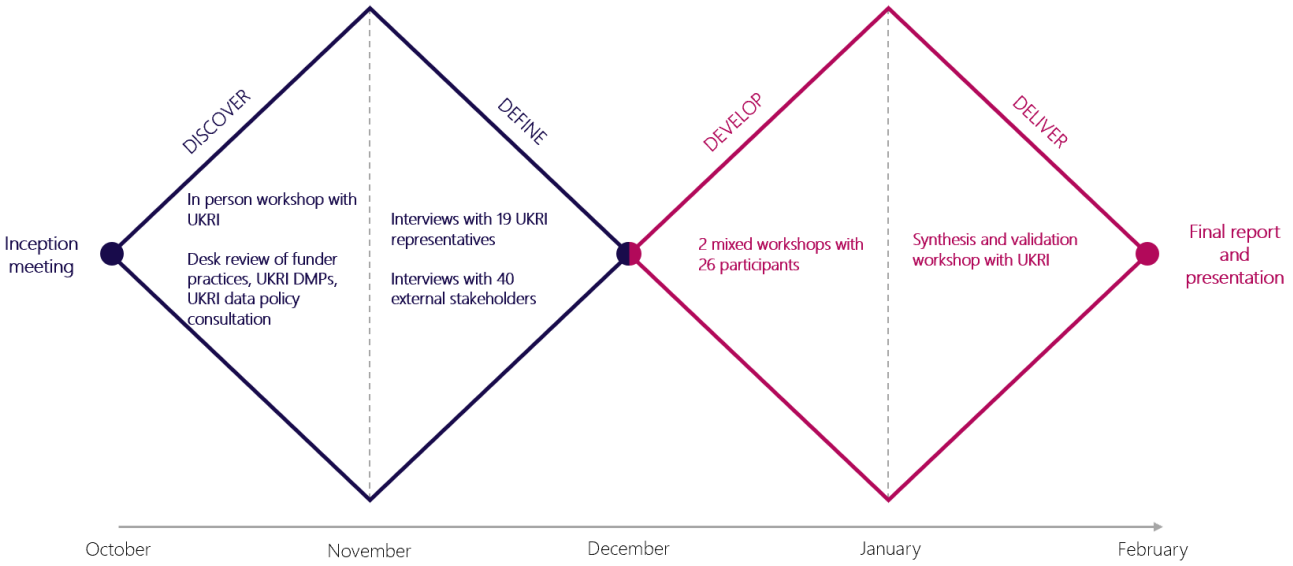
- **The Discover phase established a baseline understanding of current requirements for data management plans across UKRI and beyond.** This involved desk research to map current requirements across all UKRI research councils, Innovate UK and Research England; a review of evidence gathered by UKRI as part of its research data policy consultation (including workshop notes and written responses submitted to the UKRI Engagement Hub); an investigation of the DMP requirements of other research funders; and a review of existing data management plans submitted in response to UKRI funding opportunities. An initial workshop with representatives from across UKRI's councils, Innovate UK, and Research England was held in October 2025 to validate the findings of initial desk research and to develop a theory of change that guided the project and the development of research questions.
- **The Define phase focused on stakeholder engagement and aimed to capture priorities to guide the development of pan-UKRI DMP requirements.** Stakeholders were identified across three levels to ensure coverage across the research landscape: micro (individual researchers and research communities), meso (research performing organisations, publishers, DMP tool providers and infrastructure services), and macro (research funders). A total of 40 interviews were conducted with stakeholders across these groups; in addition, 19 interviews were conducted with UKRI council representatives to understand current DMP requirements and support mechanisms across the organisation.
- **An interim validation workshop was conducted in November 2025.** Emerging findings were presented to UKRI's Research Data Policy Working Group, summarising the key messages arising from the external stakeholder consultation conducted as part of this review; at this workshop, a draft framework outlining potential requirements for data management plans was presented, setting up a process of iterative development.
- **The Develop phase explored potential solutions to the challenges identified in previous phases.** This was achieved through two mixed stakeholder focus groups, convened in January 2026 to test a draft version of the proposed framework. These focus groups brought together 26 representatives from research performing organisations, infrastructure providers, publishers, researchers, and UKRI staff (it should be noted that some attendees overlapped with prior phases of engagement).
- **The Deliver phase focused on the finalisation of the pan-UKRI framework for DMP requirements and the development of this report**. Through further internal discussions with representatives of UKRI, the proposed pan-UKRI framework was iterated and progressively improved, seeking to balance UKRI's institutional needs and the feedback captured from across

the research community. This report was then prepared, including evidence from all stakeholder engagement activities and proposed pan-UKRI DMP requirements.

Throughout the project, findings were analysed through a process of thematic coding, using the theory of change created in the Discover phase as an organising framework. Thematic coding was supported by the use of generative AI (Claude Opus 4.5), which assisted with evidence synthesis across a large qualitative dataset and with the extraction of quotes for inclusion in this report. All generative AI outputs were closely monitored and validated by the research team, to ensure accuracy of interpretation and correctness.

Please note that no sensitive data shared by UKRI (e.g. sample DMPs, consultation responses) was uploaded to generative AI systems or analysed via generative AI.

Figure 1. High-level diagram of the project approach.



1.3 Report structure

Following the present section, this report includes the following sections (Table 1). Given the depth of the discussion and analysis, a brief summary of each section is provided to aid navigation.

Table 1. Report structure.

Section	Summary of coverage
Section 2. Research funder perspectives	• Maps the current landscape of requirements for data management plans across UKRI's constituent bodies, examining how independent policy development prior to UKRI's formation created variation in approaches, submission processes, review mechanisms, and compliance monitoring. • Explores the DMP requirements of other international funders.
Section 3. Stakeholder perspectives	• Presents evidence from 71 stakeholders across the research ecosystem, structured around the application, award, post-award, and end of grant stages. • Identifies recurring challenges of DMPs in today's research landscape and corresponding opportunities that UKRI may consider.
Section 4. Foundations for a pan-UKRI DMP approach	• Develops five foundational considerations to underpin a revised pan-UKRI approach, building on the desk review and stakeholder evidence collected throughout the project.

Section 5. A pan-UKRI framework for DMP requirements	• Proposes a coherent framework organised across short, medium, and long-term horizons. • Establishes pan-UKRI minimum requirements, with structured flexibility that reflects available support capacity.
Section 6. Conclusions	• Synthesises findings and identifies critical success factors and longer-term opportunities. • Highlights areas that UKRI should consider as part of change activities arising from the introduction of new requirements for DMPs.

1.4 Limitations

This review was subject to some methodological and practical constraints that should be considered when interpreting its findings:

Stakeholder representation and participation

- Participation in interviews and workshops relied on voluntary participation, which may introduce bias towards those with stronger views, more experience with DMPs, or greater institutional capacity to engage. The sample of 71 stakeholders, whilst diverse, cannot be considered statistically representative of the entire UK research ecosystem. This was mitigated through extensive desk research and by drawing on a broader range of perspectives captured via UKRI's broader research data policy consultation.

Evidence base

- The scope of this review was designed to focus on current practice, stakeholder experience and near-term opportunities for improving DMP implementation across UKRI. Longer-term questions, including the impacts of different DMP approaches and the sustainability of proposed solutions, fall outside the scope of this commission and may benefit from future evaluation as UKRI's new research data policy is implemented.
- This review focused primarily on UKRI's internal processes and UK-based perspectives. Whilst international funder practices were benchmarked, the experiences of UK researchers navigating multiple international funder requirements were not examined in depth.
- Limited quantitative data was available on DMP review outcomes and on the relationship between requirements and actual data sharing behaviour, constraining the evidence base for assessing current system effectiveness.

Contextual dependencies

- The review was conducted during a period of research data policy development and organisational change within UKRI, including the pending decommissioning of Researchfish by Elsevier. Recommendations assume continuity in UKRI's strategic direction and may require adaptation if priorities shift.

- Proposed solutions assume current levels of capacity and infrastructure within UKRI and research performing organisations. Significant changes in these resources or policy priorities could affect the viability of recommendations.
- The framework's feasibility depends on factors beyond this review's control, including digital infrastructure development, sector-wide culture change, and sustained commitment from multiple stakeholder groups.

Scope of the conclusions and recommendations

- Findings and recommendations are specific to the UKRI context and UK research landscape. Whilst informed by international benchmarking, the proposed framework may not be directly transferable to other national or international funding contexts without adaptation.
- Findings and recommendations represent the opinion of the authors. The contents of this report should not be considered as UKRI's position with regard to future requirements, policies, or processes.

1.5 Acknowledgements

We would like to thank the following individuals for their guidance and input:

- Emma Devine, Paul Richards, and Rachel Bruce for providing strategic guidance throughout the project and facilitating access to data and key stakeholders across the UKRI community.
- UKRI Research Data Policy Working Group for their expert input in shaping the scope of this project, reviewing interim findings, and providing valuable context on the policy development process.
- Interviewees and focus group attendees for generously sharing their time, expertise and perspectives (Appendix A). Their insights form the foundation of this report.

2. Research funder perspectives

2.1 Current UKRI approach to DMPs

UKRI was established by the Higher Education and Research Act 2017 and launched in April 2018, representing a significant reform of the UK's research and innovation funding landscape. The establishment of UKRI brought together seven disciplinary research councils (AHRC, BBSRC, EPSRC, ESRC, MRC, NERC, STFC), Innovate UK, and Research England.

Prior to this, research councils operated semi-independently, with Research Councils UK operating as a coordinating body for the disciplinary research Councils and initiatives like the RCUK Common Principles of Data Policy and the Concordat on Open Research Data emerging over time as guiding frameworks. As a result, approaches to research data management (including the preparation of DMPs) were shaped by a breadth of disciplinary expectations, community norms, and investments in specific data infrastructure.

In April 2025, UKRI published a draft research data policy for consultation, signalling its intention to replace existing council-specific requirements with a unified framework for implementation from 2027. The draft policy takes a modular approach: it sets out common expectations for research data and metadata applicable across all UKRI funding and highlights that supplementary guidance modules will be released to address the needs of specific research domains and data types. Importantly, the scope of the draft policy extends beyond traditional research data to encompass algorithms, software, code, and workflows (in line with the concept of output management plans described in section 2.4).

The stated objectives of the draft policy include enhancing the value, transparency, and integrity of publicly funded research; providing clearer and more consistent expectations across UKRI's council-specific and cross-council funding; aligning with broader priorities including digital research infrastructure, supporting diverse skills and talent, and trusted and secure research and innovation; and ensuring that UKRI's expectations reflect current technological developments and best practice. The draft policy aims to support the FAIR data principles (Findable, Accessible, Interoperable, and Reusable), consistent with the approach set out in the above-mentioned Concordat on Open Research Data.

This review was commissioned specifically to provide evidence to support the development of pan-UKRI requirements for data management plans within the framework established in the draft research data policy (see p. 8 in the draft policy).

UKRI ran a stakeholder consultation on the draft research data policy between April and August 2025. The consultation comprised a series of roundtables and workshops with experts and representative bodies from across UKRI's research community, a public information webinar held in May 2025, and an online feedback form open to all. Respondents were invited to comment on the draft policy's common expectations for research data and metadata, as well as areas UKRI was

developing in parallel (e.g. domain-specific guidance, expectations for software and code, DMP preparation, eligible costs, and monitoring and compliance).

UKRI will be publishing the final policy, together with the outcomes of its consultation later in 2026.

2.2 Current requirements for data management plans

2.2.1 Requirements across UKRI's research councils

Table 2 below was developed with support from representatives of UKRI and complemented via the review of relevant documents and guidance. It provides an overview of current data management practices within the seven research councils, whereas the approaches taken by Research England and Innovate UK are covered in the following sections.

The analysis reveals a degree of variation in approaches, particularly at the award stage, reflecting the independent policy development that occurred before UKRI's formation. Overall, Table 2 showcases two high-level types of DMPs requirements within UKRI:

- Most councils (AHRC, BBSRC, MRC, and STFC) and some cross-UKRI schemes (e.g. Future Leaders Fellowships (FLFs)) follow what might be characterised as a "front-loaded" approach: applicants submit a statement at the application stage, typically through a dedicated text box or as part of broader ethics and responsible research considerations but face no requirement to update or revisit this statement throughout the project lifecycle. There is currently very limited provision to monitor whether the intentions expressed in application-stage DMPs translate into practice later in the project; however MRC recently launched a partnership with the UK Reproducibility Network to explore how best to monitor research data sharing in practice in the context of its grants.
- In contrast, ESRC and NERC take a more hands-on approach characterised by three features: post-award development of full DMPs, expectations for ongoing updates during projects, and dedicated processes to monitor alignment with their expectations. Per Table 2, NERC also requires an outline DMP at the time of application, covering where the applicant seeks to share their data, the expected data volume and more. Both ESRC and NERC have invested in specialist data infrastructure (the UK Data Service for ESRC and the NERC Environmental Data Service, including a range of Data Centres) that provide some capacity to support researchers in developing detailed plans and the systems to monitor alignment with policy expectations. The resources put into place enable a level of engagement with DMPs that would not currently be feasible for other parts of UKRI.

About The Funding Service (TFS)

The Funding Service (TFS) is UKRI's online, end-to-end platform that replaced Je-S for most research council funding (with the transition taking place over the course of 2023), providing a single digital portal where applicants can find funding opportunities, prepare and submit applications, collaborate with project partners and research offices, and subsequently track and

manage awards and reviews through a standardised, question-based interface aligned to assessment criteria. While TFS provides a common infrastructure, individual opportunities can vary in terms of which questions are presented, what word limits apply, and whether data management is captured as a standalone section or folded into broader questions (see Table 2).

Innovate UK uses the Innovation Funding Service (IFS) as its online system for most competitions, rather than UKRI's TFS.

Table 2. Overview of data management practices within the seven research councils.

AHRC	
Application and assessment	Statement submitted through The Funding Service under Ethics and Responsible Research and Innovation [section/question]
Award	No update to DMP required
Post-award	No update to DMP required
End of grant	AHRC has a mechanism to check that research data outputs are shared as part of Researchfish reporting, though this is not done routinely
BBSRC	
Application and assessment	Data management plan submitted through the Funding Service under Data Management Planning; data management plans form part of the assessment and the overall score; proposals with unsatisfactory data management plans are not awarded until a satisfactory plan is submitted; opportunities funded through the Bioinformatics and Biological Resources Fund trialled using a DMP template provided by BBSRC
Award	No update to DMP required
Post-award	Grantees are responsible for updating their DMP, as required by the data policy
End of grant	Grant holders are requested to capture and record data sharing activities, including details of where and how data have been shared, via Researchfish

ESRC	
Application and assessment	Statement submitted through the Funding Service under Data Management Planning
Award	Full DMP required, supported by the UK Data Service; dedicated conditions covering DMPs are included in award documentation, directing researchers towards resources that UKDS provide on DMPs
Post-award	Expectation that the DMP is updated throughout the project
End of grant	UK Data Service monitors data deposited through the ReShare repository or an alternative repository
EPSRC	
Application and assessment	Statement submitted through the Funding Service under 'Ethics and Responsible Research and Innovation' or 'Data management and sharing' (only applies to a small number of selected funding opportunities); for specific opportunities and projects that are data-focused by nature (e.g. TransiT Hub and Core research challenges in digital twinning for crisis resilience), applicants should demonstrate that their data curation and management have been considered and resourced appropriately within the application
Award	No update to DMP required
Post-award	For specific opportunities and projects that are data-focused by nature, data curation and management are monitored
End of grant	No mechanism to monitor alignment with the expectations set at the application stage
MRC	
Application and assessment	Statement submitted through the Funding Service under Data Management Planning, informed by a template provided by the MRC

Award	Dedicated conditions covering DMPs are included in award documentation
Post-award	No update to DMP required
End of grant	No current mechanism to monitor alignment with the expectations set at the application stage; MRC recently launched a partnership with the UK Reproducibility Network to explore how best to monitor research data sharing in practice in the context of its grants
NERC	
Application and assessment	Statement (Outline DMP) submitted through the Funding Service under Data Management Planning
Award	Full data management plan required within 3 to 6 months of project start, developed using Data Stewardship Wizard (with in-depth support from the Environmental Data Service); dedicated conditions covering DMPs are included in award documentation
Post-award	Expectation that the DMP is updated throughout the project
End of grant	NERC data centres track data shared at the end of the project in line with the full DMP submission at the time of award
STFC	
Application and assessment	Statement submitted through the Funding Service under Data Management Planning; statements are mandatory for most opportunities, except Public Engagement; if applicants feel there is no requirement for a DMP, this must be justified at the application stage
Award	No update to DMP required
Post-award	No update to DMP required
End of grant	No mechanism to monitor alignment with the expectations set at the application stage

Furthermore, cross-council schemes present specific challenges in terms of DMP requirements, as illustrated by two examples:

- The Future Leaders Fellowships (FLF), which span UKRI's entire remit with no disciplinary boundaries, use a single DMP template across all grantees; applicants are encouraged to consider which council might be their lead, but requirements for data management plans do not vary accordingly. The scheme is also split across two platforms: academic-hosted applicants apply through The Funding Service (TFS), while non-academic-hosted applicants (including businesses, catapults, and charities) apply through Innovate UK's Innovation Funding Service (IFS). FLF panel members review DMPs alongside other application documents and can raise concerns where plans are insufficient; the long duration of fellowships (four plus a three-year renewal) and their interdisciplinary nature mean that DMPs submitted at application may have limited relevance to the data management challenges that emerge as projects develop. FLFs are initially awarded for a period of four years, and Fellows have the opportunity to apply for up to an extra three years of funding; in these cases, an updated DMP is required for the renewal period.
- The Cross research council responsive mode (CRCRM), a pilot scheme for research grants that fell outside individual council remits, reported similar challenges in setting DMP requirements for research that did not sit neatly within a single council's framework.

These cross-council schemes illustrate the broader tension between the need for a common approach and the reality that data management customs can vary significantly across disciplines.

2.2.2 Research England's DMP requirements

Research England does not generally fund individual research projects in the same way as research councils. Instead, its primary funding streams are block grants allocated to institutions, which can be distributed according to their own strategic priorities. Research England's primary funding streams are Quality Related (QR) funding and Higher Education Innovation Funding (HEIF).

As acknowledged in UKRI's draft research data policy, the applicability of UKRI's expectations to Research England depends on the following criteria:

- Research data will fall within the scope of the UKRI data policy in cases where Research England awards funding for specific purposes that leads directly to particular research outputs or project findings informed by data which may have reuse value. This will be made clear through the terms and conditions for each relevant scheme.
- Research outputs do not fall within the scope of the UKRI data policy where they arise from the use of block grant funding by institutions. However, good practice aligned with the UKRI research data policy, and the Concordat on Open Research Data is encouraged.

Finally, Research England, through the Research Excellence Framework (REF), can recognise and reward data management practices, which may influence practice in the sector: current guidance for Strategy, People, and Research Environment statements for REF 2029 notes that institutional

responses "should focus on how strategy, systems and enabling infrastructure support the research environment" and that they should "draw links between how approaches to supporting and including people and roles enables excellent, diverse and responsible research, engagement and impact."

2.2.3 Innovate UK's DMP requirements

Innovate UK funds businesses directly and manages proposals using the Innovation Funding Service (a separate system from The Funding Service used by research councils). Research data management is primarily addressed through contractual arrangements between industry grant holders and their partners (including academic ones), rather than through requirements at the opportunity level.

UKRI's draft research data policy reflects this approach and notes that a DMP is required when Innovate UK-funded projects produce research outputs for publication with academic partners.

2.3 Assessing current practices

Discussion with representatives of UKRI identified areas where current requirements for data management plans work well, alongside known friction points. The assessment presented in Table 3 draws on discussions with stakeholders from across UKRI's councils and data services and repositories. The picture that emerges is mixed: where councils require the use of particular UKRI-funded data services (most notably in the cases of NERC and ESRC), the development of a DMP is an active, supported process. Elsewhere, structural constraints around review, monitoring, and word limits mean that requirements for data management plans at the application stage are more likely to feel like compliance exercises.

Table 3. Key considerations for a pan-UKRI approach to DMP requirements based on the views of UKRI stakeholders.

Finding	Illustrative examples	Key considerations for a pan-UKRI approach
Dedicated data infrastructure and resources enable meaningful engagement	NERC's Environmental Data Service supports PIs from plan development through annual review (including chasing PIs if a DMP has not been submitted within six months of the project start and sending reminders to deposit data at the end of the grant; escalation routes with the NERC Head Office are available if PIs are unresponsive); ESRC's UK Data Service provides deposit support and automated grant-end reminders, as	DMPs are most effective when support structures are available to follow their implementation and monitor compliance; it is recognised that these mechanisms are constrained by the availability of funding

Finding	Illustrative examples	Key considerations for a pan-UKRI approach
	well as extensive self-learning training resources	
Structured templates are useful to applicants	BBSRC noted that applicants found the three-page BBR template helpful, as it helped guide them through data management requirements and how these could be satisfied	The format and process used to capture input from applicants matters as much as the requirements themselves
Word limits can constrain meaningful planning	The current word limits applied to information on research data management often prove insufficient in capturing enough information to operationalise commitments	A short, word-limited statement on data management is not an effective DMP or proxy for one
DMP review during assessment is inconsistent	Grant reviewers lack guidance on what constitutes a good DMP in most cases (with MRC being a notable exception); DMPs rarely affect funding decisions if the science behind the proposal is strong	A self-reinforcing cycle is currently in place: limited scrutiny leads to low researcher effort, which in turn can lead to grant reviewers focusing their own efforts on other aspects of the application
Applicants see DMPs as compliance exercises rather than planning tools	UKRI representatives report that some submitted DMPs appear to be generic in nature, without significant evidence of tailoring to the specifics of a project; this is recognised as a systemic pattern (including beyond UKRI) and is not council-specific	Where DMPs are not reviewed, not monitored, and carry no consequences, there is little incentive to prepare a thoughtful submission
Post-award monitoring is largely absent	Only NERC and ESRC currently follow up on DMP implementation on a regular basis	Approaches are needed to check that the commitments made at the time of application are upheld and, if not, explained transparently
The Funding Service has created a more consistent	Although the introduction of TFS has made infrastructure more consistent, councils retain varying requirements, processes, and guidance	TFS created infrastructure for harmonisation, which a pan-UKRI policy framework now has the opportunity to deliver

Finding	Illustrative examples	Key considerations for a pan-UKRI approach
applicant interface		

2.4 DMP requirements by other research funders

To contextualise UKRI's current approach, this project also examined the DMP requirements of other research funders, as shown in Table 4. It should be noted that the funders presented in Table 4 include a diverse group chosen to illustrate variation across the sector. UKRI funds significantly more research than all others except for the National Institutes of Health (NIH); at the same time, the scope of UKRI is more closely comparable with ANR, FWF, and NWO, as national, cross-disciplinary funders.

The analysis highlights several patterns that are relevant to UKRI's own approach. First, most funders examined require some consideration of data management at the application stage but defer the requirement for a detailed DMP until after a project has been funded. This is the approach taken by the French National Research Agency (ANR), European Research Council (ERC), the Austrian Science Fund (FWF), the Dutch Research Council (NWO), and the National Institute for Health and Care Research (NIHR). The rationale is that a detailed DMP is a significant undertaking and should not be imposed on the large number of applicants who will not ultimately receive funding.

Second, all funders in Table 4 provide some form of structured template, checklist, or set of required elements to guide DMP preparation. Among European funders, the Science Europe DMP template has emerged as a common reference point: FWF, ANR, and CNRS have all adopted or adapted it.

Third, monitoring and follow-up vary widely, and most funders acknowledge gaps in this regard. FWF stands out as having the most systematic approach to monitoring, with dedicated staff checking every DMP at project start and at the final report stage.

Finally, this research found that several funders are refining their approaches. NWO is actively revisiting aspects of its research data management policy and related DMP processes, and both FWF and DFG have updated their requirements and guidance in recent years, reflecting continuing efforts to make current models work better in practice. This means that UKRI's own review takes place in a wider context of international reflection and reform, and that there may be opportunities for mutual learning as new approaches are developed and evaluated.

Table 4. DMP requirements by other research funders.

Research funder	Requirements at application	Requirements following award
ANR (France)	Discussion of data management and related implications is expected as part of the project methodology: "The methodology also includes Open Science practices, namely: data management, reuse of existing data sets, development or contribution to open source software and / or standards, and adopting permanent identifiers for all research products"	The DMP is considered a deliverable. The ANR must receive it within six months of the start of the scientific research work. The plan will be updated as the project progresses in accordance with the procedures set out in the grant allocation document and the ANR financial regulation.
ERC (Europe)	No formal requirements at application, though overall guidance by ERC stresses the importance of open science, including research data management.	ERC projects are required to submit a Data Management Plan (DMP) within six months after the start of their grant.
FWF (Austria)	Consideration of research data is expected at the application stage, as funding is available to cover "Costs for the preparation, archiving, open access, and reuse of research data in repositories in accordance with the FWF's Open-Access Policy for Research Data."	The DMP must be submitted together with the FWF Grant Agreement for an approved project. The DMP is a prerequisite for the start of the project and will be reviewed by the FWF to check that it is complete.
NWO (Netherlands)	A short "data management section" is expected as part of the proposal/application.	The DMP must be submitted after award, for review and approval by NWO. Projects cannot start until approval is received.
NIH (United States)	A Data Management & Sharing (DMS) Plan is submitted with the funding application. This is assessed for adequacy, and applications selected for funding will only be funded if the DMS Plan is complete and acceptable.	If the DMS Plan provided in the application cannot be approved based on the information provided, applicants will be notified that additional information is needed.

Research funder	Requirements at application	Requirements following award
NIHR (United Kingdom)	No formal requirements at the application stage.	Data sharing is a requirement of NIHR funding. Data management and access plans (DAMPs) are completed during research startup and made available on the NIHR Funding and Awards website.
Wellcome (United Kingdom)	A data sharing plan (outputs management plan) must be provided when applying, unless there is a justification against a plan being needed.	During the end-of-grant reporting process, Wellcome will consider the extent to which outputs have been managed and shared in line with their requirements, taking into account outputs management plans and recognising that these may have been revised as your research progressed

While UKRI's future research data policy will cover software and code alongside data, some funders are considering reframing DMPs to emphasise delivery across multiple output types beyond data and to make end-of-grant accountability more straightforward. Wellcome is the clearest example among major funders of an explicit 'Outputs Management Plan' requirement, but outputs-oriented planning also appears in other funding contexts under 'data and digital outputs' terminology (e.g. Belmont Forum and Biodiversa+ calls).

These developments point to a shifting landscape in which funders are experimenting with different planning instruments. However, the evidence base on effectiveness remains limited: there is currently little published evaluation demonstrating whether outputs management plans improve sharing behaviour, reduce burden, or lead to better downstream reuse compared with more traditional DMP language and approaches. In this context, outputs-oriented planning should be treated as a direction to test and learn from, rather than an established best practice.

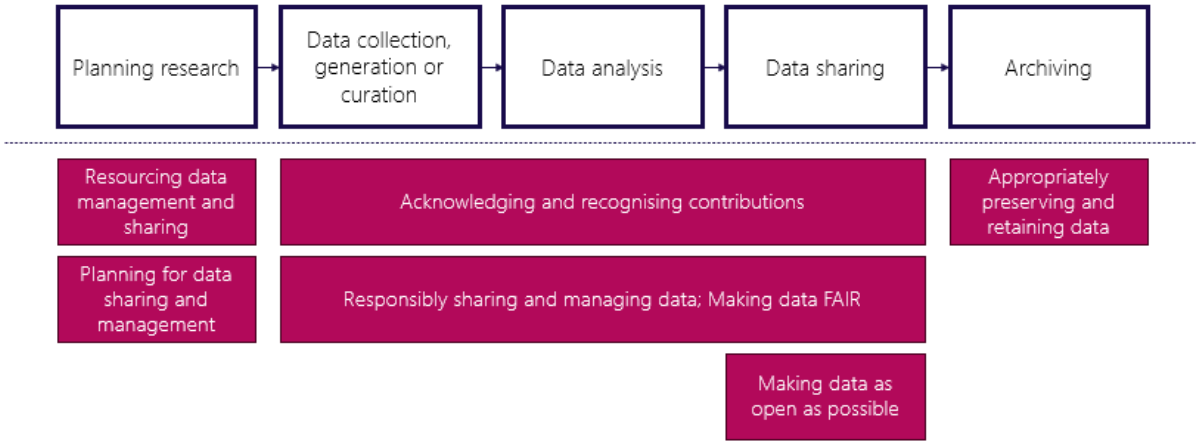
3. Stakeholder perspectives

This section examines stakeholder experiences of UKRI's current DMP requirements. The evidence is organised around the five stages of the research data lifecycle, following the framework established by MRC (Figure 2): planning research; data collection, generation or curation; data analysis; data sharing; and archiving. This structure reflects how data management decisions arise and accumulate throughout the course of a research project, rather than mapping findings to administrative milestones in the funding process.

Figure 2 also includes a mapping to the key principles in UKRI's draft data policy, as described in section 2. This is helpful to show that the draft principles do not map neatly to individual research lifecycle stages but instead cut across multiple phases of research practice. Indeed, adopting this lifecycle perspective is itself a key finding of this review. Stakeholders consistently described a disconnect between when UKRI asks researchers to articulate their data management intentions and when those intentions can meaningfully be acted upon.

By examining the evidence through the lens of research practice, this section surfaces the structural misalignments that underpin many of the challenges reported and highlights where interventions could have the greatest practical impact. Each of the following subsections draws on evidence from researchers, research performing organisations, publishers, and infrastructure providers.

Figure 2. Mapping the research lifecycle to the key principles in UKRI's draft data policy (Sources: Draft UKRI Research Data Policy; MRC data sharing policy).



3.1 Planning research

This section addresses how researchers prepare for data management before and at the point of submitting a funding application. It brings together evidence on what funders ask for, how researchers and institutions respond, and whether current planning requirements achieve their intended purpose.

3.1.1 Variation in requirements adds complexity for researchers and institutions

As outlined in section 2, UKRI's research councils, Innovate UK and Research England have developed different DMP requirements over time. These differences partly reflect genuine variation in disciplinary practice and are not without rationale. However, it was reported that this variation creates practical challenges for both researchers and research performing organisations when preparing funding applications.

Depending on the funding opportunity, researchers may encounter different templates, word limits, and levels of detail expected in the data management information required at application and throughout the lifetime of the award. For researchers whose projects span more than one funder – whether across UKRI councils, through co-funding with external funders, or via international collaborations – reconciling different sets of requirements can be particularly challenging, especially when expectations differ significantly. Indeed, Science Europe developed its *Practical Guide to the International Alignment of Research Data Management* specifically because "there is a lot of variation in research data management policies" and "this can be confusing for researchers and is especially problematic as many researchers acquire their funding from different sources."

"The Funding Service model is quite chaotic for staff as well as researchers because every single call that comes out has a different DMP requirement... I think that is putting a lot of researchers off." – Research Performing Organisation

Research performing organisations described the workload this variation creates for institutional support services, which must interpret, reconcile, and operationalise different requirements while supporting researchers to complete grant applications. The Funding Service has brought a degree of consistency to the process by providing a single application portal, but it does not in itself reduce the underlying variation in what is asked for across different calls.

Participants were clear that greater consistency should not come at the cost of appropriateness, and that a delicate balance is required. Different disciplines have genuinely different data practices: the outputs of a computational biology project differ fundamentally from those of an oral history project or a particle physics experiment. A fully uniform approach risks imposing requirements that do not fit some communities, while still failing to capture what others need. The challenge is to establish core requirements that apply across UKRI, while allowing sufficient flexibility in how those requirements are met in different disciplinary and methodological contexts.

As covered in section 2.4, international funders have demonstrated that this balance between consistency and flexibility is achievable in practice, particularly through the adoption of common templates that researchers in different disciplines can complete in ways that reflect local norms and expectations. At the same time, it must be acknowledged that UKRI has a broader portfolio, and distributes more funding overall, than most of the comparators in Table 4, indicating that any transition is likely to be more complex.

"We know all the different disciplines have their own guidelines. I think it needs to come from the disciplines and if they have that then we should be fine with that and we might not need to require a template anymore." – Funder

3.1.2 The timing and format of planning requirements limit their effectiveness

Stakeholders across the research landscape recognise that data management plans can serve a valuable function as planning tools. When well-designed, a DMP prompts researchers to consider what data will be generated, whether specific costs relating to research data management will be incurred, how data will be managed during the project, and what will happen to it after the project ends. For research performing organisations, this forward planning helps to anticipate resource requirements and prepare institutional support, as well as informing the choice of potential check-ins with a project depending on its risk profile (e.g. if a project is planning to make use of personal data, or might require access to high performance computing facilities).

"I think the process to prompt the researcher to think about planning is absolutely fundamental. I think it's also useful to ensure the resources are available, whether it's staffing, training or equipment. It can also help to justify and inform costings in grant applications as well." – Research Performing Organisation

Despite this recognised potential, it was reported that three structural factors constrain how effectively DMPs fulfil this function in practice: the format in which plans are requested, the structure of the plans, and the point in the research process at which they are required (Table 5). Notably, these factors are also confirmed by prior research, including in the context of machine actionability.

The combination of these factors leads to application-stage DMPs often being perceived aspirational documents rather than plans that can meaningfully guide data management once a project begins: for example, a review of DMPs at Wayne State University (USA) found that "many data management plans fail to adequately describe the data generated by the project, how data will be managed during the project, or how data will be preserved and shared after the completion of the project."

Table 5. Format and timing as limiting factors for the effectiveness of DMPs.

Feature	Key barriers
Format of DMPs	• Word limits for data management statements (particularly the light-touch statements submitted via The Funding Service) reduce the burden on researchers at the application stage. However, they also produce plans that are too brief to serve as practical guides once a project is underway. • Tight word constraints can encourage cursory responses that address the letter of a funder's requirements without engaging with

	how data will actually be handled. The format itself may also send an implicit signal about the priority placed on the DMP: when researchers are given limited space to articulate their approach, they may reasonably infer that this is regarded as a secondary concern.
Structure of DMPs	• Unstructured narrative prompts or a single free-text box can encourage generic responses that "cover the bases," which make it hard for applicants to provide operational detail. Previous analysis in the context of NIH-funded research found that "unstructured DMSPs (Data Management and Sharing Plans) consistently underperformed compared to structured DMSPs." • The variability in a submission enabled by the lack of constraints means that what is written at application is harder to carry forward, update, and revisit post-award by researchers and professional services alike.
Timing of DMP preparation	• Many data management decisions remain genuinely uncertain at the application stage. Research projects evolve as they progress, and the specific detail needed to plan data management effectively typically only becomes clear once work is underway. • There is a mismatch between what funders need to assess a proposal and what researchers are able to provide at the application stage. Funders need assurance that applicants have considered their data requirements and can resource them appropriately. However, the current DMP format may not be the most effective vehicle for meeting them: what funders receive is a document that researchers find difficult to make meaningful at the point it is requested, and which is rarely revisited once a project begins. This contributes to a perception of DMP preparation as a compliance exercise.

"And that's always a struggle, getting it to fit into 500 words and you just think I can't possibly talk about all of this data and show how I'm sharing it between team members or externals safely within 500 words, it's just so hard and you just want to make sure that's not what lets the proposal down." – Research Performing Organisation

A related concern is that current requirements for data management plans are largely undifferentiated by the features of the project itself. A straightforward project generating a single, well-understood dataset often faces broadly similar expectations as one involving sensitive personal data, multiple international partners, or novel data types requiring specialist infrastructure. Several stakeholders noted that this lack of proportionality contributes to the perception of DMPs as a compliance exercise: where requirements do not reflect the complexity or risk profile of a project, researchers have limited reasons to treat them as meaningful planning

tools. This suggests that what UKRI asks for at the application stage could be calibrated not only in terms of timing and format, but also in relation to the nature of the data and the specific considerations that a project gives rise to.

As a result, the evidence points to an opportunity for UKRI to reconsider not only *when* it asks for data management information, but *what* it asks for at each stage and in what form. A more focused set of application-stage questions, addressing key decisions about data types, anticipated costs, and intended repositories, could give funders and grant peer reviewers the assurance they need whilst acknowledging that detailed, operational planning is more appropriately undertaken once project parameters are confirmed. This would represent a shift from asking researchers to produce a comprehensive plan before funding is awarded to asking them to demonstrate that they have thought critically about their data requirements and how these will be resourced.

3.1.3 Costing data management presents practical difficulties

Stakeholders described the costing of research data management as covering two distinct challenges. The first concerns resourcing activity that takes place within the lifetime of the award (e.g. staff time for data preparation, documentation, storage during the project, and repository deposit fees). The second concerns costs that extend beyond the award period (e.g. ongoing storage, preservation, curation, and governance), which are harder to budget for within time-limited project funding and are often treated as an institutional overhead.

Although data management costs are eligible for UKRI funding (e.g. storage, staff training, technical support, and technical professionals) interviewees from research performing organisations reported that researchers do not often include these costs in their applications. Several factors contribute to this according to the participants consulted:

Costing within the lifetime of the award

- Researchers may avoid including visible data management costs (e.g. curation effort, specialist support, deposit fees) due to competitiveness/value-for-money perceptions.
- Applicants and research offices lack consistent benchmarks for what "reasonable" data management resourcing looks like, and reviewers often lack confidence to assess it.
- Practical uncertainty at application stage (data volumes, sensitivity, repository choice, licensing) makes accurate costing difficult, which can lead to under-budgeting or vague placeholders.

Managing costs beyond the lifetime of the award

- Storage, preservation, and stewardship obligations frequently outlast the grant, but project budgets are typically constrained to the funded period, creating a structural mismatch.
- Where institutions cover long-term costs, approaches vary widely, leading to inequity: well-resourced organisations can absorb costs through various budgets, while others face hard trade-offs that may reduce data preservation resources and support.

- Responsibility and accountability become diffuse post-award (PI vs institution vs repository), which sometimes makes it unclear who should plan for, pay for, and maintain long-term access.

The findings of a report by the National Academies of Sciences published in 2020 strongly support these points, for example highlighting that "many costs are not easily anticipated" and that "personnel costs associated with data and data platform management are likely to dominate total costs" – yet these are the hardest to estimate.

"Most of the research councils allow you to cost for research, data management support. Most people don't do that and I think that's partly because research development managers are saying, but it needs to be value for money. […] I think the Council's need to do some engagement with research development managers and explain why RDM is good value for money." – Research Performing Organisation

The distinction between costs incurred during and after the award's lifetime suggests that guidance and interventions should also be differentiated: clearer expectations and benchmarks can improve the costing of in-award activity, while longer-tail costs may require separate mechanisms (e.g. institutional allocations, centrally negotiated repository arrangements, or policy-aligned retention and preservation guidance) rather than being treated as a project-by-project budgeting exercise. Indeed, a small number of participants discussed the idea of allocation-based funding models, analogous to those used for open access. Through this approach, organisations could receive allocations based on their total UKRI funding and draw these down over time to cover ongoing data management costs.

"It's hitting us all, that requirement that effectively project money has to be spent within the life of a project. So from an accounting perspective finance find it really hard… Perhaps a model more like the Open Access funding model might resolve it, so if there were grants to organisations towards the costs of data management plans and data storage, based on the total value of UKRI funding." – Research Performing Organisation

3.1.4 The assessment of data management plans is inconsistent in practice

Across UKRI, the assessment of DMPs is managed through peer review panels as part of the broader evaluation of grant applications. Panellists are typically other researchers, principal investigators, or grant holders, recruited based on relevant subject matter expertise.

This research found that the quality and consistency of this assessment vary considerably. In particular, evidence from institutions and UKRI councils indicates that grant peer reviewers often feel unqualified to assess technical aspects of DMPs, such as those relating to intellectual property, sensitive data handling, or storage infrastructure, which is a structural weakness in today's approach. This insight is confirmed by previous work, too, which found that "it is hard for reviewers to be experts on all aspects, such as metadata standards, repositories, licensing" and that "the

quality of feedback mostly depends on the reviewer's expertise and may lack required insight, overview, and objectivity." Given that review panels cannot reasonably be expected to hold specialist knowledge across all (meta)data considerations and research methodologies, requiring applicants to demonstrate that they have consulted relevant data providers (including institutional or external data repositories, as applicable) may help in strengthening both the quality of data management information submitted and the panel's ability to assess it.

Where assessment criteria or scoring systems are provided, there is typically limited accompanying guidance to support reviewers in applying them consistently; MRC is a notable exception, and provides a detailed reviewer's rubric for data management plans.

"What is obvious to me as a peer reviewer is when you read an application for funding where there's clearly a set of values over here that are underpinning the research and none of them are reflected when they start talking about ethics and DMP. And you think, well, either you've outsourced it or you think it doesn't matter. My experience of being a technical reviewer when AHRC did have a technical college is the rest of the peer reviewers often thought things were great that I thought were a terrible idea because I didn't think that the technical work had been appropriately scoped." – Researcher

It was also highlighted that, due to the current assessment weighting, DMPs that lack detail or do not fully address data management requirements are very unlikely to affect the overall funding decision. This pattern was noted by a UKRI research council, which described the tension between recognising the importance of good data management and acting on that recognition in practice:

"The first question I asked when I went to every board was: could research be excellent if it doesn't have excellent data sharing? All of them said no – excellent research needs excellent data sharing, but they just didn't know how to get there… If the science was exciting enough, they would overlook some pretty bad data management plans. Even though they said it was important, they would never be confident enough to say 'this is excellent science, but actually we can't fund it until that's fixed.'" – Funder

This experience extends far beyond UKRI itself, and work by the National Academies of Sciences, Engineering, and Medicine reports that "most grant agencies require a DMP but do not explicitly score DMPs or integrate them formally into scoring a proposal under consideration for funding." The result is a system in which DMPs are assessed in principle but carry limited weight in funding decisions. For researchers, this reinforces the perception that DMPs are of secondary importance. For reviewers, it provides little incentive to invest significant time in DMP assessment.

3.1.5 A researcher's individual context shapes how they engage with DMP preparation

It was reported that researchers engage differently with DMP preparation depending on their individual context, particularly their discipline and career stage. These are features of the research landscape that any pan-UKRI approach to DMP requirements will need to account for.

DMP templates and guidance are largely oriented towards scientific and data-intensive disciplines, where data management concepts are often already part of research workflows. For researchers in these fields, existing requirements tend to be familiar and manageable. However, stakeholders noted that the language of "data" does not resonate equally across all disciplines, which broadly confirms past research on this topic: researchers in arts, humanities, and social sciences (where research outputs may include performances, artworks, creative processes, qualitative interviews, or supporting documentation) may not recognise their outputs as "data" or may find it difficult to translate their practice into frameworks designed for other contexts. Work by the Research Data Alliance further characterises this challenge in the humanities, noting that humanities "data" is often rich and complex, less amenable to standardisation, and frequently entangled with rights and reuse constraints, which can make it difficult to align scholarly outputs with existing research data infrastructures and templates.

"I think language is really important here. But also extracting elements of what is created as data rather than – there's a fundamental problem with the system assuming that you have a journal article or a monograph, and then you have some data that underpins it. That's the value of working with practice research – it's just about the output and the process that's created and how that links together." – Research Performing Organisation

Career stage also plays a role. For many doctoral and early-career researchers, preparing a DMP for a funder represents their first formal engagement with research data management. Previous work confirms this finding: for example, a study focusing on social science graduate students found that more than 90% of participants had never written a data management plan, with limited familiarity with data repositories and discipline-specific challenges around privacy. Another study commented more broadly that "significant disciplinary differences in perceived incentives and barriers, as well as the age of the respondents, as factors in data sharing attitudes and practices."

It was also reported that, whilst institutional policies are helping to embed good practice earlier in researchers' careers, systematic training is not always available at the point when researchers first need to submit DMPs. This means that some researchers approach the process without the grounding needed to engage with it meaningfully.

These disciplinary and career-stage dimensions do not in themselves present problems to be solved, but they do underscore the importance of flexibility in how requirements are framed and communicated.

3.1.6 Tools support researchers by providing DMP templates and guidance

A recurrent theme across both desk research and stakeholder interviews was the role that external tools and support services play in supporting DMP preparation.

A number of platforms have been developed to support researchers in creating, managing, and sharing data management plans. Among the most established are DMPonline, provided by the Digital Curation Centre (DCC) in the UK; DMPTool, a service of the California Digital Library; the

Data Stewardship Wizard (DSW), an open-source platform developed through the support of ELIXIR; and ARGOS, a tool developed by OpenAIRE that helps to produce machine-actionable DMP.

In the UK context, DMPonline is widely used across research performing organisations and offers structured templates aligned with multiple funders, including UKRI councils. Many institutions have adopted it as a standard tool for researchers preparing DMPs, and can configure organisational guidance and funder templates within the platform. The Data Stewardship Wizard, used within the NERC Environmental Data Service (EDS) context, leads researchers through a structured set of questions to develop data management plans, supported by EDS guidance and processes (see section 2).

"DMPonline was adopted when it first became available in 2012, and the team has created templates within the tool for various funders and internal needs, making it the primary recommended platform." – Research Performing Organisation

These tools have become a significant part of today's infrastructure in practice, and the guidance they provide directly affects the DMPs submitted by applicants or used as part of projects. Any changes to UKRI's requirements for data management plans will therefore need to consider implications on these platforms, to avoid creating parallel workflows or inconsistencies between funder expectations and the tools available to meet them.

3.1.7 Institutional support for DMP preparation varies significantly

Effective DMP preparation increasingly requires coordination across multiple institutional functions. Researchers frequently need tailored support to address specific queries about their projects rather than generic guidance on how to complete a DMP. Meeting this demand places significant pressure on institutional support services, regardless of whether external tools (see section 3.1.6) have been used.

Discussion with the community highlighted considerable variation in how institutions are resourced to respond. Well-resourced institutions may have dedicated research data management teams of up to six or seven staff members, in some cases supplemented by data steward programmes embedded within faculties or departments. At the other end of the spectrum, some institutions may have as few as one or two staff who are partly responsible (i.e. less than a full-time equivalent) for data management support across their entire research population. Research focusing on US and Canadian higher education institutions helps further qualify this challenge: it was found that "while there are wide divergences in the number and variety of services offered both within and across Carnegie Classifications, R1 institutions offer approximately three times the number of services offered by R2s, and more than nine times the number offered by liberal arts colleges."

"We have a central team that supports this, but we don't have people that can go out and do it with everybody… It would be lovely if we had enough resource to support each project and say,

'can I help you with that data management plan?'... At scale, it's quite hard." – Research Performing Organisation

This disparity in capacity directly shapes the support researchers receive. Institutions across the sector adopt risk-based approaches to allocate their limited resources, though the threshold for prioritisation varies considerably. Well-resourced institutions can provide tailored support for a broader range of projects, whilst those with more constrained capacity must focus on high-value or complex grants, leaving other researchers to navigate the process with limited guidance. This disparity also suggests that (i) a set of more uniform requirements for DMPs; and (ii) the ability to provide more or less detail in a DMP depending on the feature of a project would benefit both applicants and their institution.

Furthermore, some stakeholders highlighted that costing dedicated data management expertise directly into grant budgets is also possible, whether through named data stewards or digital research technical professionals focusing on a given project. Whilst this approach is viable in principle, the following concerns were raised:

- PIs applying to opportunities with lower amounts of funding available may be discouraged from adding further costs or from devoting significant proportions of their budget to data management support.
- The costing of data management support in grants gives rise to long-term sustainability issues, as specialists often have to leave after the end of their fixed-term contracts, which often cannot be renewed. It is sometimes possible to part-fund data management support specialists across multiple grants and with an extent of central funding, though this is logistically complex.

"When you have multiple fixed term contracts, you have a really high attrition rate out of the university and a lot of the institutional knowledge that you need to manage research data just gets lost when the fixed-term contract ends." – Research Performing Organisation

A related challenge concerns the nature of the support provided. Where multiple professional services contribute to data management, but no single service has oversight of the complete process, each tends to address the requirements that fall within its own remit. The result is that institutional support often helps researchers to meet submission requirements, but is less well placed to support them in developing coherent data management practices that span the full project lifecycle.

This is amplified by limited visibility across the sector of how grant peer reviewers assess DMPs and against what criteria. Without a clear picture of what constitutes a 'good' data management plan in the eyes of funders, both researchers and the professionals supporting them have little to aim for beyond satisfying the stated requirements.

3.1.8 Possible interventions at the planning stage

The following possible interventions at the planning stage emerged:

Intervention	Description
Common core requirements with disciplinary flexibility and proportionality to the features of a project	• Establish common core requirements at the application stage, with discipline-appropriate tailoring and sufficient flexibility for different research contexts (including cross-disciplinary and international collaborations, and disciplines where the language of "data" does not readily apply). • Enable applicants to provide more or less information about research data management based on the features of their proposed project. • Ensure that guidance and terminology are accessible to researchers at all career stages, including those encountering funder data management requirements for the first time.
Focused application-stage requirements	• Focus application-stage requirements on key decisions (e.g. data types, anticipated costs, and intended repositories) rather than comprehensive operational planning that cannot be meaningfully completed before a project begins. • Signal that detailed, operational planning is a core element of good research practice, and should evolve in line with a project's evolution over the course of a grant.
Clearer guidance on data management costing	• Provide clearer guidance on data management costing, giving researchers confidence to budget appropriately and reviewers benchmarks against which to assess proposed costs. • Consider the potential for new approaches for funding institutional support for research data management and long-term data storage
Strengthened assessment of information submitted around research data management	• Strengthen the assessment of information on research data management submitted at the time of application through clearer guidance, dedicated assessment criteria, or specialist review, ensuring that the quality of submitted DMPs carries appropriate weight in funding decisions.

3.2 Data collection, generation or curation and analysis

This section addresses what happens once a funded project is underway. It examines whether data management plans produced at earlier stages translate into active data management practice, and what structural factors affect this.

3.2.1 The concept of a "living document" is not yet reflected in practice

Several major funders explicitly frame data management plans as living documents that should be maintained and updated as projects develop, rather than completed once and filed away. For example, the Annotated Grant Agreement for EU funding programmes 2021-2027 states that "beneficiaries should maintain the DMP as a living document and update it over the course of the project whenever significant changes arise." Similarly, guidance by the Swiss National Science Foundation (NSF) describes a DMP as "a living document and can be adapted throughput the project duration." Guidance released by several UKRI councils points in a similar direction: for example, AHRC guidance for fellowships mentions that applicants should use their DMP "as a living document throughout [their] fellowship"; guidance by the British Geological Survey (in the context of NERC-funded research) notes that "the DMP is a living document and can be updated as the project progresses"; and the UK Data Service states that "Good practice is also to regularly update the data management plan as research progresses, for example during six-monthly project meetings. This way, the DMP becomes a quality assurance statement for your research data in the long term."

In practice, however, DMPs are commonly completed at the point of application and not returned to once a project begins. This reflects that once funding is confirmed and research is underway, the motivation to revisit a document that carries limited accountability is often low – even though there is recognition that planning is conducive to the sharing of research data at the end of a project.

Additionally, institutional support for data management tends to be concentrated at the beginning and end of the project lifecycle, with limited capacity for proactive engagement during the active phase of projects.

"We don't have the resource to be doing regular check-ins at the project level... generally, that's usually towards the end of a project where they realised that, when they signed up, they had to publish all the data alongside the paper, and they haven't thought about that." – Research Performing Organisation

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The result is a gap in the middle of the project lifecycle. Researchers are expected to manage data actively and in line with funder and institutional expectations, but the support structures, tools, and incentives that would help them do so are largely absent during this phase.

Research on this subject broadly confirms the views shared by participants. For example, a study found that "none of the PI interviewees used the DMP as a guiding document for data management in their lab," with a minority of participants indicating that "the DMP is viewed as a supplementary document in the proposal – less important than the scientific research at the core of the proposal". Another article notes that "an extensive literature review suggests there is very limited published systematic evidence that DMP use has any tangible benefit for researchers, institutions or funding bodies."

3.2.2 Data stewardship could bridge the post-award gap, but capacity is limited

In principle, data stewardship (i.e. the practice of providing specialist, tailored support for research data management) could help to address the gap identified above. Data stewards embedded at faculty or department level could maintain ongoing relationships with researchers leading projects, offering continuity from proposal through to completion and helping to ensure that data management practices evolve alongside the research itself.

However, data stewardship remains an informal and unevenly distributed practice across the UK research sector. Where it does exist in UK institutions, it is often reliant on fixed-term or externally funded posts. This creates high attrition and means that the institutional knowledge needed to manage research data well is frequently lost when staff move on.

> *"We would love researchers to cost in data stewards into research grants. But then when you have so many fixed term contracts, you have this really high attrition rate out of the university and a lot of the institutional knowledge that you need to manage research data well just gets lost." – Research Performing Organisation*

It is worth distinguishing data stewardship from broader institutional support for DMP completion. As discussed in section 3.1.7, many institutions do provide guidance to help researchers prepare DMPs for funder submission. Data stewardship goes further, involving ongoing engagement with research teams about how data is actually handled, documented, and prepared for sharing as a project progresses. The stakeholders engaged highlighted that this deeper, sustained form of support is rare: even at well-resourced institutions, dedicated capacity may extend to only one or two staff members. Building this capacity on a sustainable footing, for example through long-term, funded data steward posts, would require both funder signals that such costs are welcome and institutional commitment to embedding these roles within research support structures.

These findings are confirmed by both this stakeholder consultation and broader discussions on the data stewardship profession, highlighting a need "to move away from data stewards carrying out their jobs as an extra temporary task based on good will, making data stewardship a core competence in the organisation" – including in light of reported ambiguity around their role and remit.

3.2.3 There are few structured triggers for researchers to revisit their plans

Even where researchers are motivated to keep their data management plans up to date, the current landscape provides few prompts to do so. Most UKRI councils do not require DMP updates during the life of a project, and there are no formal checkpoints at which plans are reviewed against actual practice. As discussed in section 3.1.7, NERC-funded research is an exception, with the Environmental Data Service contacting researchers annually on behalf of NERC to ask whether any updates should be noted; at the same time, it was acknowledged that there are limited incentives for researchers to engage with said revisions.

"I think that the biggest part of that is just getting across the idea that a data management plan is dynamic... People write the plan, they submit it with their grant, they never come back to it... It should be something that you do refer back to and that if you make a change, you update your DMP so that the DMP is an accurate reflection." – DMP tool and service provider

Research performing organisations are similarly limited in this regard. Although many have developed their own institutional data policies, and some have introduced mandatory requirements for data management plans that go beyond current funder expectations, the institutions consulted did not describe having formal mechanisms to prompt researchers to revisit or update their plans during a project. Where post-award support is available, it is typically reactive or risk-based, offered when researchers seek it out rather than triggered by institutional checkpoints.

"We require a data management plan at the start and we have a Figshare repository that people can use at the time of publication. But there's no structured provision in the middle." – Research Performing Organisation

The absence of structured trigger points means that updating a DMP is largely a matter of individual initiative. It was reported that, whilst tools such as DMP Online do allow researchers to revisit and update their plans, in practice this rarely happens. The challenge is primarily behavioural rather than technical: without prompts tied to existing project milestones (such as annual reporting) there is no natural moment at which researchers are encouraged to reflect on whether their data management approach has changed and to document this accordingly.

In this context, some have proposed the use of semi-automated workflows for the creation and maintenance of DMPs, though this is tied to machine actionability and therefore less likely to be viable in the short term.

3.2.4 Possible interventions at the data collection, generation or curation and analysis stages

The following possible interventions at the data collection and curation stage emerged:

Intervention	Description
Support for data stewardship capacity	• Explore funding models for data stewardship as a sustained function within institutions, to provide continuity rather than relying on fixed-term appointments within the context of a grant.
Behavioural and cultural change around DMP use	• Address the perception of DMPs as static submission documents through a combination of funder expectations, institutional support, and tool design that encourages researchers to treat plans as working documents throughout the project lifecycle.

3.3 Data sharing and archiving

This section examines the barriers that arise when researchers seek to share and preserve data, the limited visibility funders currently have of whether this takes place, and what mechanisms could strengthen accountability across the sector.

3.3.1 Data management plans and ethics approvals are not always aligned

A recurring challenge identified by participants was the disconnect between what researchers commit to in their DMPs and what their ethics, governance, and consent documentation permits. This misalignment typically becomes apparent during project delivery or at the point of data deposit, when data sharing expectations need to be reconciled with conditions set at earlier stages of the research process.

The causes for this type of misalignment typically lie within processes and sequencing. Researchers may complete their ethics applications and consent documentation before developing a DMP for a funder, and the two processes may not be coordinated. Where consent forms or participant information sheets do not anticipate the data sharing commitments that a funder expects, researchers may find themselves unable to share data even where they intended to do so in principle. Indeed, previous research noted that "researchers may not be thinking about the eventuality of data sharing when their focus is on simply gaining approval to collect the data in the first place," and argued for the inclusion of questions in DMPs that explicitly point to this requirement.

Research performing organisations are best placed to support researchers in navigating requirements and their alignment. At the same time, ethics committees can only review what is submitted to them, and with the information available at that time; where the paperwork submitted by researchers does not sufficiently address data sharing, the committee cannot be expected to identify or resolve the gap.

Even in disciplines that routinely make use of personal data (e.g. biomedical sciences, social sciences), governance approvals and consent documentation may vary across collaborating institutions. In multi-partner projects, different sites may have secured slightly different levels of governance approval or used consent forms with slightly different provisions for data sharing. Where this results in inconsistency, the most restrictive conditions across all partners become the effective constraint on what can be shared.

"We had to refuse the deposit of their data because what they'd put in their consent form contradicted what they'd put in their IRAS form. And we said we can't accept this data because we do not have the assurance that participants really consented to this." – Research performing organisation

The challenge is particularly acute in disciplines where awareness of data sharing considerations is still developing, and where ethics and consent processes have not historically been designed

with downstream data sharing in mind. Repositories and publishers encounter the consequences later in the research lifecycle, when researchers discover that their documentation does not permit the sharing they had anticipated:

> *"One of the most annoying things I've found, both working in a publisher role and running an institutional repository, is when you ask people to share data... and they say, 'we haven't got the ethics approval because we didn't consider data sharing at the ethics stage.'" – Publisher*

This is not a challenge that UKRI can address unilaterally, as ethics approval and governance processes sit within institutions. However, there is an opportunity to strengthen the connection between these processes and the DMP preparation process.

3.3.2 Data management activity tends to concentrate around reporting deadlines

It was reported that researchers commonly defer data management tasks, including documentation and the preparation of data for sharing, until reporting deadlines approach. This is not unique to data management, and funders and institutions described a broader pattern in which researchers defer administrative tasks until pressed by deadlines. To illustrate this phenomenon, the National Institute of Aging (part of the NIH) coined the term "data procrastination syndrome," which seeks to describe cases in which authors realise too late that they have "questions about uploading, formatting, and sharing [their] data", which can in turn lead to delay in the publication of a manuscript.

> *"Quite often, they [researchers] leave everything until it's reporting time — even reporting publications, reporting data, reporting anything." – Funder*

Furthermore, by the point at which researchers turn their attention to data management, they may be some distance from the decisions and activities they need to document. Details about data collection, processing steps, and contextual information may no longer be fresh, making it more difficult to curate and describe data to a standard that supports reuse. This deferral also means that any conflicts between DMPs and ethics or consent documentation tend to surface late in the process, at a point when they are more difficult to resolve.

It is also worth noting that the evidence collected focused primarily on whether data is deposited and shared at the end of a project, rather than on questions of long-term preservation. Issues such as how long data should be retained, who bears responsibility for curation once a project has ended, and what happens when repositories change or close received comparatively little attention from stakeholders. This may reflect the fact that deposit is the more immediate and visible challenge and more closely related to the information typically included in a DMP.

3.3.3 Monitoring of alignment with DMP commitments is limited

For most UKRI-funded research, there is no structured process to verify whether the commitments made in a data management plan were carried out. Once DMPs are submitted, there is typically

no mechanism through which funders or institutions can assess whether data was managed, documented, and deposited in line with the plan. Stakeholders described this as an "open loop" in the data management ecosystem. Broader research on this subject found that "gaps exist across all regions when it comes to creating accountability of DMP implementation despite their proliferation as a stipulation to receive research dollars," pointing to the fact that this is a shared pain point.

In addition, because publishers and data repositories operate largely independently from funder and institutional processes, there is currently no systematic way for information about data deposits to flow back. Without this connection, funders and institutions have limited visibility of whether data sharing is taking place, and researchers have limited incentive to treat their DMPs as consequential documents.

"The challenge is this lack of a 'stick' or a requirement from funders saying if you want to apply for our money to do a thing, you need to write a DMP... It's hard to get researchers to take it seriously because they know that they just need to hit a certain level, tick a box, and it just has to be good enough." – Research Performing Organisation

Institutions specifically acknowledged that monitoring whether funded projects produce and deposit final datasets is resource-intensive. Whilst there are ways in which this could be done, the capacity and infrastructure to do so consistently are not in place across the sector.

"It's almost a job for somebody to check. Does every project have a final data set that should have a final data set? Also I guess that's only going to work if they did the data management plan and you know there's data." – Research Performing Organisation

In the absence of systematic monitoring, some stakeholders have developed their own approaches to tracking whether data sharing takes place. Some institutions and publishers reported the use of data availability statements in publications as a proxy for assessing alignment with data sharing expectations, in some cases building systems that can be queried by funder or researcher.

"We are monitoring the number of data availability statements and papers. At the moment we are focusing on UK and Wellcome because that's the policy they require them and we don't have resource to go through every paper and then follow up." – Research Performing Organisation

However, the value of data availability statements as a monitoring mechanism is constrained by their variability. Statements range from those that specify repositories and persistent identifiers to those that simply indicate data is "available on request," and there is very limited consistency in what they communicate. Publishers highlighted that even basic verification of whether links and repositories are functional requires significant effort. Data availability statements are therefore a useful but imperfect signal: they can indicate whether data sharing has been considered, but they

do not reliably demonstrate whether data has been made available in a way that supports access and reuse.

The result is that projects often conclude without a clear record of what happened to the data. This does not necessarily reflect a failure of intent on the part of researchers; rather, it reflects a system in which there are few structured prompts or accountability with regard to research data sharing.

The experience of Austrian funder FWF, which operates at a significantly smaller scale than UKRI in terms of both budget and grant volume, shows that active follow-up on data management commitments can positively influence researcher behaviour. FWF employs dedicated staff who review data management plans both at the start and at the end of funded projects. At project start, staff check that DMPs address key elements of FWF's open data policy, including whether a repository is specified, whether a licence is identified, and whether persistent identifiers are planned. At project end, staff review final reports and cross-check whether publications are accompanied by corresponding data deposits. When data is missing, staff contact researchers directly to understand what happened and to support alignment with policy expectations. However, for funders without dedicated data infrastructure or specialist staff, implementing similar approaches would require significant new investment. This points to the potential value of targeted rather than comprehensive monitoring, focusing verification efforts on specific categories of opportunities, project types, and checkpoints in the grant lifecycle.

3.3.4 The case for publishing final data management plans remains open

The practice of sharing DMPs is not currently widespread, but multiple initiatives provide working models that UKRI could draw on:

- DMPTool enables researchers to set their plans to public visibility and register them for a persistent identifier that can be linked to ORCID.
- DMPonline offers a similar public sharing function, complemented by an option to enable 'Organisational' visibility only.
- RIO Journal (Research Ideas and Outcomes) is an open-access journal that publishes non-traditional research outputs including data management plans, software management plans, grant proposals, and project reports.

Notably, these mechanisms are all author-led rather than funder-mandated: researchers choose whether to share their plans, and uptake remains modest relative to the total number of DMPs created. Moving from voluntary sharing to a policy expectation would therefore represent a significant step beyond current practice.

The review explored whether data management plans should be made publicly available at the time of application in the case of UKRI. There was broad recognition that published DMPs could have value as training materials: seeing how other researchers have approached data management in practice, particularly within similar disciplinary or methodological contexts, could help less experienced researchers understand what is expected and what good practice looks like.

Published DMPs could also support transparency and enable meta-research into data management practices across the sector.

"I definitely see the value in other researchers being able to access DMPs, especially early career researchers, PhD researchers" – Research Performing Organisation

At the same time, stakeholders raised concerns about the usefulness of DMPs that are shared without sufficient context. A plan produced at the application stage and never updated reflects intentions rather than practice and may bear little resemblance to what actually happened during the project. Without an accompanying account of how and why practice might have diverged from the original plan, a published DMP offers limited value as either a learning resource or an accountability mechanism.

"I also personally doubt that having a DMP published can help to then cross-check with what kind of outputs have been made available, because there can be sometimes very right reasons why things didn't go according to the plan." – Funder

There was limited agreement on where published DMPs should be hosted; options discussed included institutional repositories, funder systems, and dedicated infrastructure (akin to the above examples). Overall, the evidence suggests that the sharing of DMPs by default could be value-adding, though the level of consensus indicates that this would require further consideration prior to inclusion as part of policy expectations.

3.3.5 Possible interventions at the data sharing and archiving stages

The following possible interventions at the data sharing and archiving stages emerged:

Intervention	Description
Strengthen the connection between ethics and data sharing processes	• Ask applicants to confirm, at the point of application, that they have considered whether their research ethics and consent arrangements are: consistent with the data sharing expectations of their target opportunity and the UKRI research data policy; the expectations of any other funders involved (if relevant); and aligned with any applicable research governance expectations. This would not require UKRI to intervene in institutional ethics processes, but would prompt researchers to identify potential conflicts earlier. • Ask applicants to confirm that research ethics and governance requirements across all organisations in a multi-party application are compatible.

Intervention	Description
End-of-grant reflections	• Require researchers to document, at the close of a project, what data was produced, where it was deposited, and how practice differed from the original plan. • These reflections could create a feedback loop between planning and practice, and could serve as the basis for published DMPs or for funder learning about how data management requirements are working in practice.
Close the information loop on data deposits	• Explore mechanisms for information about data deposits to flow back to funders (for example, through links between repositories, publishers, and funder reporting systems) so that alignment with data sharing commitments can be assessed more directly than through data availability statements alone.
Publication of end-of-grant DMPs	• Consider making final, reflective DMPs publicly available to support transparency, learning, and meta-research. • Discuss potential locations for the public sharing of DMPs, including existing or new infrastructures.

4. Foundations for a pan-UKRI DMP approach

The findings presented in the previous sections cover a set of recurring tensions that any revised requirements for data management plans will need to address:

- Current requirements vary significantly across UKRI councils, creating complexity for researchers and institutions.
- The 500-word limit in The Funding Service, combined with the lack of structured headings and the coverage of research data management as part of other sections of an application (e.g. in the cases of AHRC and EPSRC), constrain meaningful planning and inadvertently signals a low priority for data management.
- DMPs are overwhelmingly treated as static, compliance-focused documents rather than living planning tools.
- Institutional and funder capacity to support researchers through the data management lifecycle is unevenly distributed and often insufficient.

In this context, participants broadly welcomed the ambition behind UKRI's move towards a more coherent pan-UKRI approach, provided that consistency and simplification do not put research quality and integrity at risk.

The findings explored so far point towards the need for a set of criteria that can guide UKRI's development of revised requirements, addressing the structural causes of today's compliance-driven culture whilst being realistic about institutional capacity and the practical constraints. Drawing on the synthesis of desk research and evidence from the stakeholder engagement activities, five foundational considerations have been developed (Table 6).

Table 6. Foundational considerations for the development pan-UKRI requirements for data management plans.

Foundational consideration	Description
Alignment with UKRI's research data policy	Ensuring that DMP preparation sits within, and reinforces, UKRI's harmonised research data policy expectations across the full research data lifecycle rather than reproducing fragmented council-specific approaches; enabling good research practice and effective funding decisions.
Timing	Aligning what UKRI asks for, and when, to points in the project and research lifecycles where requirements are most likely to be actionable and to positively influence good

Foundational consideration	Description
	research practice and effective funding decisions.
Proportionality	Scaling requirements for data management plans based on the features of the project and to the capacity of UKRI and institutions to engage with plans meaningfully.
Structured flexibility	Establishing consistent pan-UKRI minimum requirements at key stages while allowing bounded variation in post-award requirements where dedicated infrastructure and support exist or in-depth discussion is needed given the nature of the research of opportunity.
Resources	Recognising that effective implementation depends on adequate financial, operational, and cultural support across UKRI, institutions, and research teams.

These considerations are described further in the next sections and are intended to operate together as a coherent set: each addresses a distinct dimension of the challenge, but none is sufficient in isolation.

4.1 Alignment with UKRI's research data policy

Future requirements for data management plans must operate within, and actively support, the updated UKRI research data policy, including its drive to:

- establish harmonised, pan-UKRI expectations whilst accommodating necessary disciplinary variation across the full research data lifecycle (Figure 2); and
- ensure that UKRI can evaluate and fund achievable, high-quality research that accounts for appropriate disciplinary good practices, supporting a collaborative, open and sustainable research environment.

Making this explicit is necessary because the fragmentation described in section 2 demonstrates that coherence across UKRI cannot be assumed. Treating alignment with the pan-UKRI policy as a foundational requirement ensures that the remaining principles in this framework function within a shared policy context, rather than inadvertently perpetuating the inconsistencies the new policy is designed to resolve.

4.2 Timing

UKRI's requirements for applicants and grantees should map to specific stages in the grant and research lifecycles (Table 7). In particular, requirements at the application stage should be lighter-touch wherever possible, recognising uncertainty about data volume, unexpected methodological challenges, and long-term value, whereas more stringent requirements should only apply after the point of award. The importance of timing also reflects the reality that many applications are unsuccessful, meaning that small increments in mandatory requirements can create disproportionate time use across the research sector.

Table 7. Mapping a typical grant lifecycle to the research lifecycle.

Stage from a grantee's perspective (per MRC research data policy)	Stage from a funder's perspective
Planning research	Application and Assessment; Award
Data collection, generation or curation	Post-award
Data analysis	Post-award
Data sharing	Post-award; End of grant
Archiving	Post-award; End of grant

This mapping shows that the application and assessment and award stages correspond to the planning phase of research, whilst most substantive data management activity (data collection, analysis, sharing, and archiving) occurs during the post-award and end-of-grant stages. Stakeholders clearly recognised that there is a need for information at the application stage, especially where institutional infrastructure may not be able to support the intended research or where significant costs may be incurred for research data management that should be accounted for.

Aligning requirements to the above considerations means concentrating procedural requirements where they are most likely to be actionable and can positively influence good research practice and effective funding decisions.

Notably, the principle of timing is also considered by a number of other funders, as highlighted in section 2.4, further strengthening the argument for adoption.

4.3 Proportionality

Due consideration and effort should be invested in DMP preparation, to support research integrity and quality. However, this effort should be proportionate to the nature, scale, and data requirements of a project, so that DMPs are perceived as enabling tools rather than unnecessary administrative burdens (in alignment with the Independent Review of Research Bureaucracy).

This principle addresses two interrelated problems identified through this review. First, the current system applies broadly similar requirements regardless of the features of a project, meaning that straightforward projects face similar administrative expectations to those involving sensitive data, international collaboration, or novel data types. Second, the capacity of UKRI and institutions to meaningfully engage with submitted DMPs varies significantly:

- In most cases, the review of DMPs is integrated within general grant assessment, and reviewers typically lack systematic training on what constitutes a "good" DMP. Where dedicated data infrastructure exists, substantive engagement is possible; where it does not, DMPs are formally required but rarely scrutinised.
- In the case of institutions, research data management resources may range from a single staff member covering an entire organisation (potentially, with less than a full time equivalent dedicated to research data management) to teams of multiple individuals. Data stewardship posts also vary significantly, including teams of different sizes and a range of funding models (e.g. fixed-term, externally funded, centrally funded). Institutions with limited resources typically take a risk-based approach, prioritising support for high-value or complex grants whilst leaving other researchers to navigate the process independently.

4.4 Structured flexibility

A pan-UKRI framework must provide coherence and capture information that supports the peer review of research proposals, as well as accommodating disciplinary variation. This review highlighted that the current variation in requirements for data management plans has emerged from a mix of disciplinary norms and administrative structures that changed over time. At the same time, this variation has created a fragmented landscape that may confuse researchers and research professionals. The challenge, as section 3 described, is to find the right level of consistency through core requirements that apply across UKRI and appropriate flexibility in implementation for different disciplinary and funding opportunity contexts, where necessary.

Structured flexibility means establishing consistent pan-UKRI requirements at the points in the lifecycle where they serve a clear purpose, whilst allowing for variation between these points where appropriate. This creates a coherent loop: common requirements at the application stage and at the end of grant can frame the process, and what sits between them can be calibrated to the resources available to engage with it meaningfully.

Where necessary variation occurs, it should remain bounded. A common framework is still necessary to ensure coherence in requirements for data management plans across UKRI, though with the option for individual opportunities to add specific guidance where needed. The framework section that follows sets out in detail how this balance between minimum requirements and structured flexibility could operate in practice.

4.5 Resources

The framework's success depends on adequate financial, cultural, and operational support for implementation, in line with the best practices and roles needed to support the research process articulated in the Concordat on Open Research Data.

This principle acknowledges a persistent theme highlighted by project contributors: the gap between policy aspiration and implementation capacity. Without adequate resourcing, even well-designed requirements risk remaining the compliance exercises they are intended to replace.

This principle therefore highlights that institutional capacity and researcher time are key enablers of good practice, and that any revised approach must be realistic about the support infrastructure needed to make it work. It also signals that responsibility for resourcing does not rest with any single actor: UKRI, institutions, and researchers all have roles to play.

This design principle should be considered as an underlying driver of future progress.

5. A pan-UKRI framework for DMP requirements

5.1 High-level summary

The five foundational considerations outlined in Table 6 are designed to work together: alignment without structured flexibility risks imposing inappropriate uniformity; timing without proportionality may simply shift the administrative burden to a different stage; structured flexibility without resources leaves institutions without the capacity to support the variation that the framework permits.

Taken together, these considerations provide a foundation for a framework that is coherent enough to address the current fragmentation, flexible enough to serve diverse research communities, and realistic enough to be implemented in a complex organisation. This section begins by presenting pragmatic recommendations focused on the short term (starting from 2027) and concludes with considerations regarding medium- and long-term scenarios (3-5 years and 5+ years, respectively).

The framework presented in this section and outlined in Table 8 focuses on the short-term scenario, setting out ambitious but achievable changes that, according to the evidence collected, are within reach. Medium- and long-term opportunities are discussed at the end of this section.

Before proceeding to the description of the proposed framework, readers are reminded that what is described below is a recommendation from the authors of this report, which UKRI will consider further prior to making changes to its expectations and practices.

Table 8. High-level summary of our proposed pan-UKRI framework.

Stage	Type of requirement	Intent	Key elements
Application and assessment	Pan-UKRI minimum requirement	Enables thorough assessment and capture of costs with minimised applicant effort.	All applicants complete a research data checklist identifying the features of a project and cost factors, followed by a short initial statement on anticipated data outputs and sharing approach. Based on the factors ticked in the checklist, applicants answer a small number of targeted questions.
Award and post-award	Structured flexibility, Scenario 1: Applies to a majority of funding opportunities	Recognises that researchers and institutions are responsible for day-to-day good research (data) practices.	UKRI expects the preparation of a formal DMP as a matter of good practice. Responsibility for creating and maintaining a DMP rests with grantees and institutions.
	Structured flexibility, Scenario 2: Applies to (i) opportunities that make use of online repositories run by UKRI; and (ii) ad-hoc cases where opportunities are characterised by high complexity with regard to research data	Enables UKRI to capture additional information on research data to inform essential strategic and operational planning. Supports in-depth research data management for opportunities with unusually high complexity in research data management.	UKRI requires the submission of a full DMP addressing Science Europe Core Requirements within six months of the start of the award, with no arbitrary word limits. Supplementary guidance outlining expectations may be provided as part of the opportunity. An updated DMP may be optionally requested at periodic reviews.
End of grant	Pan-UKRI minimum requirement	Concentrates accountability	All funded projects submit a reflection on research data

Stage	Type of requirement	Intent	Key elements
		where it provides the most direct impact and the greatest likelihood of use by UKRI and the research community.	management via Researchfish (or equivalent approach once Researchfish is decommissioned). This reflection covers data produced and shared, its accessibility, and deviations from application-stage intentions. The information populated is propagated to Gateway to Research for public accountability.

5.2 Building on other funders' practices

The design of the framework outlined in Table 8 draws on patterns observed across the international funders examined in section 2.4, adapting approaches that have been tested elsewhere to the specific scale and complexity of the UKRI context.

Three areas of alignment are particularly significant. First, the decision to keep application-stage requirements light-touch and to concentrate detailed planning at the post-award stage reflects the dominant model among the funders reviewed. ANR, ERC, FWF, NWO, and NIHR all defer the requirement for a full DMP until after funding has been confirmed, on the grounds that detailed planning is a substantial undertaking and should not be imposed on the large number of applicants who will ultimately be unsuccessful. The proposed framework follows this logic: the research data checklist and short statement at application are designed to give peer reviewers sufficient information to assess feasibility and costs, without requiring the operational detail that becomes more meaningful once a project is underway. The NIH represents an alternative model, requiring a more developed Data Management and Sharing Plan at the point of application; however, the evidence presented in section 3 suggests that a comparable level of front-loading would not be productive in the current UKRI context.

Second, the adoption of the Science Europe Core Requirements as the framework for full DMPs under Scenario 2 aligns the proposed framework with an established and increasingly widely used international reference point. FWF, ANR, and CNRS have all adopted or adapted the Science Europe template, and its use as a common structure across European funders provides a degree of cross-funder consistency that benefits researchers working across multiple funding systems as well as research professionals supporting them. For UKRI, adopting this template as a shared foundation (with the option for supplementary guidance tailored to specific opportunities) offers coherence without rigidity, and positions UKRI's approach within a broader movement towards harmonisation.

Third, the end-of-grant reflection proposed in the framework responds to a gap that most funders acknowledge but few have addressed systematically. FWF provides the clearest working model: dedicated staff review data management plans both at project start and at the final report stage, cross-checking whether publications are accompanied by corresponding data deposits and following up directly with researchers where data is missing. Wellcome's end-of-grant reporting similarly considers the extent to which outputs have been managed and shared in line with expectations. The proposed UKRI framework adapts this principle to a context where dedicated monitoring staff are not feasible due to scale, concentrating accountability at the end-of-grant stage through a structured but brief reflection that can be captured via existing reporting infrastructure and propagated to Gateway to Research for future monitoring and evaluation.

5.3 The balance between minimum requirements and structured flexibility

Before exploring the framework, it is important to establish a distinction that runs through the proposed approach. As discussed in section 4, the framework differentiates between pan-UKRI minimum requirements and a zone of structured flexibility at the award and post-award stages, as follows:

- Scenario 1 applies to funding opportunities where information on research data management collected at the time of application only seeks to ensure that UKRI can evaluate and fund achievable, high-quality research that accounts for appropriate disciplinary good practices. In this scenario, formally requiring a DMP as part of the application would constitute an unnecessary compliance exercise with no demonstrable benefit, consistent with the evidence presented in sections 2 and 3. As a result, the responsibility to create and maintain a DMP should sit with award holders and their institutions, with UKRI promoting good practice through a high-level statement and checklist (see Table 8), without mandating full DMP submissions.
- Scenario 2 applies to funding opportunity that makes use of UKRI-run online repositories, or where an ad-hoc judgement by UKRI identifies unusually high complexity with regard to research data. In these cases, the preparation of a formal DMP becomes a post-award requirement within a process that UKRI can actively support, oversee, and (where appropriate) monitor. The purpose is twofold: enabling more in-depth and proportionate research data management in high-complexity contexts, and capturing additional information needed for UKRI's strategic and operational planning.

In line with the findings of this review, the expectation is that Scenario 1 will apply to a majority of funding opportunities (including to those managed by councils that currently require minimal information on research data management), whereas Scenario 2 will be triggered in a smaller proportion of cases (including opportunities that make use of NERC data centres or of the UK Data Service). It should be noted that these scenarios describe the current landscape of UKRI data infrastructure investments, which is liable to change over time as capacity and needs evolve.

Furthermore, this approach does not diminish the overall importance of DMPs or any other aspects of research data management from the point of view of UKRI, nor does it affect the expectations regarding research data sharing as part of funded projects. Rather, the approach distinguishes between UKRI's operational and administrative requirements for the peer review and management of funding applications and awards, and the broader expectation that researchers and institutions embed good data management practice into their work.

5.4 Application and assessment stage

At the application stage, the framework proposes a pan-UKRI minimum requirement designed to be light-touch but sufficiently informative to enable assessment by peer reviewers and the capture of relevant costs to support research data management activities. Applicants would submit two elements:

- A concise research data checklist based on known risk factors arising in research data management would enable applicants to identify areas that may give rise to complexity or costs in their project. The checklist serves a dual purpose: it prompts researchers to consider key aspects of their data management needs at an early stage, and it provides UKRI and peer reviewers with a structured summary of potential challenges that may affect the assessment of the proposal. Based on the evidence collected, a number of areas have been identified for potential inclusion in a checklist (Table 9); further scoping would be required to determine the final set of checklist items, their proposed grouping, and the conditional logic that maps checklist responses to targeted questions (see below).
- A short statement (e.g. up to 250 words) outlining anticipated data outputs and the intended approach to data sharing would provide reviewers and UKRI with sufficient information to assess the feasibility and soundness of the proposed research from a data management perspective. The minimum requirements for this statement would be informed by UKRI's draft updated research data policy, ensuring alignment with the policy's core principles; recommended areas for coverage based on these principles are highlighted in Table 10 and the following sample statement.
- A small number of targeted questions mapping to the factors identified in the research data checklist would provide additional information beyond the short statement (e.g. up to 100 words per question), providing reassurance that key sources of complexity or cost have been considered appropriately by the applicant. This may be achieved through conditional logic as part of The Funding Service.

Table 9. Possible scenarios for consideration in a research data checklist and mapping to sections in the Science Europe Core Requirements.

#	The research involves or is expected to involve...	Section in the Science Europe Core Requirements

1	Use or capture of personal, special category, or otherwise sensitive data	Section 4. Legal and ethical requirements, codes of conduct (Questions 4a and 4c)
2	Use or capture of qualitative data that may be difficult to anonymise or pseudonymise for sharing (e.g. interview transcripts, oral histories)	Section 5. Data sharing and long-term preservation (Question 5a)
3	Specialist infrastructure or technical requirements (e.g. trusted research environments, dedicated data centres, UKRI data centres, large-scale storage, custom software or AI/ML development)	Section 1. Data description and collection or re-use of existing data (Questions 1a and 1b)
4	Commercial, proprietary, or third-party data with licensing or intellectual property considerations	Section 4. Legal and ethical requirements, codes of conduct (Question 4b)
5	Multi-institutional or international partnerships, including commercial partners, involving data sharing or pooling across different legal or governance frameworks	Section 4. Legal and ethical requirements, codes of conduct (Question 4a-4c) Section 6. Data management responsibilities and resources (Question 6a)
6	Intention to publish in venues (e.g. journals, repositories) with specific requirements regarding metadata or relevant features of the data (e.g. format, size, level of curation)	Section 2. Documentation and data quality (Question 2a) Section 5. Data sharing and long-term preservation (Questions 5a and 5c)
7	Significant potential for data reuse, sharing, or preservation beyond the project	Section 5. Data sharing and long-term preservation (Questions 5a and 5b)
8	Any other factors the applicant believes may give rise to complexity or costs in managing research data	N/A (as appropriate)

Table 10. Possible areas for coverage in the short data management statement and mapping to sections in the UKRI draft research data policy.

Recommended area to cover	Mapping to sections in the UKRI draft research data policy

What data the research expects to collect or generate (types and approximate scale)	In-scope research objects
What will be shared, distinguishing data underpinning publications from data with wider reuse value	What data to share
When and where data will be shared (expected timing and intended repository or deposit route)	When to share data Where to share data
Any anticipated restrictions on sharing	What data to share
Approach to FAIR at a high level (formats, metadata standards, persistent identifiers)	Implementing FAIR data

Sample data management statement (based on the areas in Table 10)

This project will generate qualitative data from approximately 40 semi-structured interviews with hospital nurses, exploring ward-level efficiencies and patient satisfaction. Interviews will be audio-recorded and transcribed, producing an estimated 40 audio files (WAV format) and corresponding transcripts (Word and plain text). We anticipate generating approximately 2–3 GB of raw data.

Anonymised transcripts and a structured qualitative dataset will be shared via the UK Data Service no later than publication of findings. Audio recordings will not be shared due to the risk of participant identification. A metadata record describing the full dataset, including restricted components, will be deposited at the point of publication.

Data will be prepared in accordance with UK Data Service guidelines for qualitative data, using the Data Documentation Initiative (DDI) metadata standard. Each deposited dataset will be assigned a DOI. Transcripts will be shared under a Creative Commons Attribution licence, with access subject to standard UK Data Service end-user agreement conditions.

Anonymisation will follow established protocols for qualitative health data, removing identifying information including names, ward numbers, and institutional details. The anonymised dataset is expected to have reuse value for researchers working on NHS workforce planning and healthcare delivery improvement.

For this assessment model to function effectively, reviewers must be equipped to evaluate data management arrangements consistently and meaningfully across opportunities. This calls for the development of standardised assessment rubrics and accompanying guidance and/or training, building on the approach currently used by MRC. Guidance and training should be practical and proportionate to reviewer workload, avoiding additional burden while ensuring that the checklist, short statement and targeted questions can be assessed with sufficient rigour. A phased

approach, piloting rubrics and training materials with an initial set of councils before broader rollout, would allow the framework to be tested and refined incrementally.

Effective cross-council coordination mechanisms will also be needed to ensure that guidance for complex funding opportunities (including those spanning multiple councils) remains proportionate and consistent. This is particularly relevant for interdisciplinary research, where one discipline's expectations for data management may exceed those of the lead funder, creating uncertainty for applicants. Such mechanisms should aim to resolve existing sources of confusion, for instance by establishing clear protocols for how different parts of UKRI agree on shared requirements when co-funding opportunities arise.

Notably, the light requirements at the time of application and assessment are not meant to be a DMP, though they do seek to inform and support the preparation of a DMP should the applicant be successful. As discussed in the following section and in Table 9, the areas covered at the application stage can be easily expanded on and integrated in a full DMP, should this be required.

In sum, this approach aims to:

- prompt critical reflection from applicants;
- ensure that eligible costs are captured;
- avoid boilerplate DMP submissions;
- ensure that reviewers can assess the feasibility of data management arrangements; and
- support consistent assessment across UKRI's funding bodies.

5.5 Award and post-award stages

At the award and post-award stages, the framework introduces structured flexibility through the two scenarios described above.

Scenario 1: Councils or funding opportunities without dedicated data management capacity

Where information on research data management collected at the time of application only seeks to inform UKRI's funding decisions, the information available via The Funding Finder highlights research data management as an expected good practice, but does not request DMP submission to UKRI, in recognition that responsibility for high-quality research rests with researchers and institutions.

In these cases, the framework positions the responsibility for creating and maintaining a DMP with grantees and their research organisations, consistent with the roles set out in the Concordat on Open Research Data: researchers are expected to develop DMPs as part of good research practice, supported by their institutions. UKRI's role in this scenario is to set clear expectations on research data sharing and good practices through its research data policy and to ensure that end-of-grant reporting captures whether those expectations have been met.

Scenario 2: Councils or funding opportunities with dedicated data management capacity

Where a council or funding opportunity has a specific need or requirement to collect DMPs, the framework proposes the following:

- Within six months of award, researchers submit a full data management plan addressing the Science Europe Core Requirements (i.e. description of research data; documentation and data quality; storage and backup during the research process; legal and ethical requirements, codes of conduct; data sharing and long-term preservation; data management responsibilities and resources). Notably, the information collected via the UKRI application process maps directly to sections in the Science Europe Core Requirements, which is expected to streamline the DMP preparation process (see mapping in Table 9Error! Reference source not found.).
- Researchers have the freedom to determine a length that is proportionate and reflective of the project's complexity.
- Using the Science Europe template as a pan-UKRI skeleton, supplementary requirements and additional guidance may be specified in the context of relevant opportunities.
- During the post-award period, DMP updates may optionally be requested by the individual or council managing the opportunity at periodic reviews, or where significant changes occur.

UKRI would determine whether the submission of a DMP should be systematised through existing or new infrastructure or managed off system, for example by email or via a dedicated inbox.

Overall, this scenario reflects the approach already taken successfully by NERC, where researchers work directly with data centre coordinators to develop DMPs using the Data Stewardship Wizard, and by ESRC, where the UK Data Service provides guidance and consultations. The proposed changes aim to establish a common framework (the Science Europe Core Requirements) that provides coherence across opportunities whilst permitting disciplinary tailoring through supplementary guidance.

5.6 End of grant stage

At the end-of-grant stage, the framework re-establishes a pan-UKRI minimum requirement, concentrating accountability at the point where it is most actionable and most likely to be used by UKRI and the wider research community. Project outcome reporting via Researchfish (or an equivalent mechanism, when Researchfish is decommissioned) would therefore include a structured, brief reflection on research data management outcomes (i.e. not a lengthy statement) covering what data was produced, where it was deposited, how it can be accessed, and any material deviations from the intentions stated at application. This reflection, alongside relevant DOIs and access links, would be propagated to Gateway to Research to support public transparency and to inform monitoring and evaluation by UKRI as well as other organisations and meta-researchers. Notably, for this intervention to be successful, monitoring and evaluation by UKRI should be systematic rather than discretionary, as well as being consequential in cases of poor or limited compliance (for example, through integration with future funding eligibility or institutional accountability mechanisms).

This requirement would introduce some additional effort for award holders, and that trade-off should be acknowledged. However, the evidence and international funder experience suggest that, without an end-of-grant checkpoint, UKRI and institutions would have limited visibility of whether data sharing expectations were met and why barriers arose. A brief close-out reflection addresses this gap by linking early-stage intentions to reported outcomes, shifting emphasis from process compliance to light-touch reporting of what was done in a way that mirrors established practices for publications and other research outputs. It also reflects the finding that retrospective accounts of what was produced and shared are often more informative than application-stage plans.

5.7 Medium- and long-term opportunities

The framework described above establishes a foundation upon which further ambitions can be built as the funding landscape evolves, digital infrastructures develop, and the impact of enhanced transparency, sharing, and openness becomes clearer to the research community.

The following opportunities have been identified for consideration over the medium and long term (Table 11). It should be noted that the realisation of these opportunities relies on action and planning in prior years; as a result, they should form part of earlier strategy development efforts.

Table 11. Medium- and long-term opportunities.

Medium-term opportunities (3-5 years)

Opportunity	Description	Key considerations
Public sharing of DMPs	Publication of full DMPs from all opportunities at the end of the grant period, using an appropriate repository or infrastructure with persistent identifiers, creating accountability and providing resources for other researchers.	• Could begin with a curated set of exemplar, high-quality DMPs across disciplines rather than wholesale publication. • Quality assessment mechanisms would be needed to distinguish examples of best practice. • Legitimate reasons may exist for plans not being implemented as written. • Depends on the end-of-grant reflection mechanism being established and embedded.
Increased sharing of code, software and	Greater push towards the sharing of code, software and other open research outputs as part of UKRI's	• These research objects are already within the scope of UKRI's research data policy,

Opportunity	Description	Key considerations
other open research outputs	research data management policy expectations (e.g. 'output management plan' model)	but not presented prominently. • Changes would require alignment across disciplines using a range of methodologies and different language; and awareness raising and capacity development for UKRI, grantees and institutions.

Long-term opportunities (5+ years)

Opportunity	Description	Key considerations
Infrastructure interoperability	Interoperability across research infrastructures involved in data management (including institutional Current Research Information Systems and repositories), supporting a more interconnected ecosystem and knowledge graphs, using identifiers such as ROR, RAiD, and DOIs.	• Enables DMP information to flow between systems without manual re-entry. • Requires coordination with international standards bodies and infrastructure providers.
Automated DMP-to-output linkage	Automated linkage between machine-actionable DMPs, data deposits, and publications via persistent identifiers, closing the loop between planning and outcomes.	• Requires widespread adoption of machine-actionable DMP standards. • Builds on infrastructure interoperability work. • Would fundamentally change UKRI's ability to monitor policy implementation at scale.
Meta-research programme	Systematic analysis of published end-of-grant statements (or publicly shared DMPs, per the Medium-term opportunities) to understand data management practice and barriers, informing future policy development on an evidence base.	• Depends on sufficient volume and quality of end-of-grant reflections. • Could be commissioned as an independent study or built into UKRI's ongoing evaluation programme.

Opportunity	Description	Key considerations
		• Creates a feedback loop from practice to policy.

6. Conclusions

This project set out to understand how DMPs are currently used across the UKRI-funded research landscape and internationally, what challenges exist, and how UKRI might refine its approach to support best practices through its policy requirements. Drawing on the views of 71 stakeholders across the research ecosystem, including research funders, research performing organisations, researchers, publishers, and infrastructure providers, the findings point to a clear insight: the challenge facing UKRI is not that DMPs are unimportant, but that the system around them has, over time and across the world, turned what should be an integrated part of good research practice into an administrative exercise. Naturally, this does not apply to all disciplines and types of research, but a majority of perspectives did coalesce in this direction.

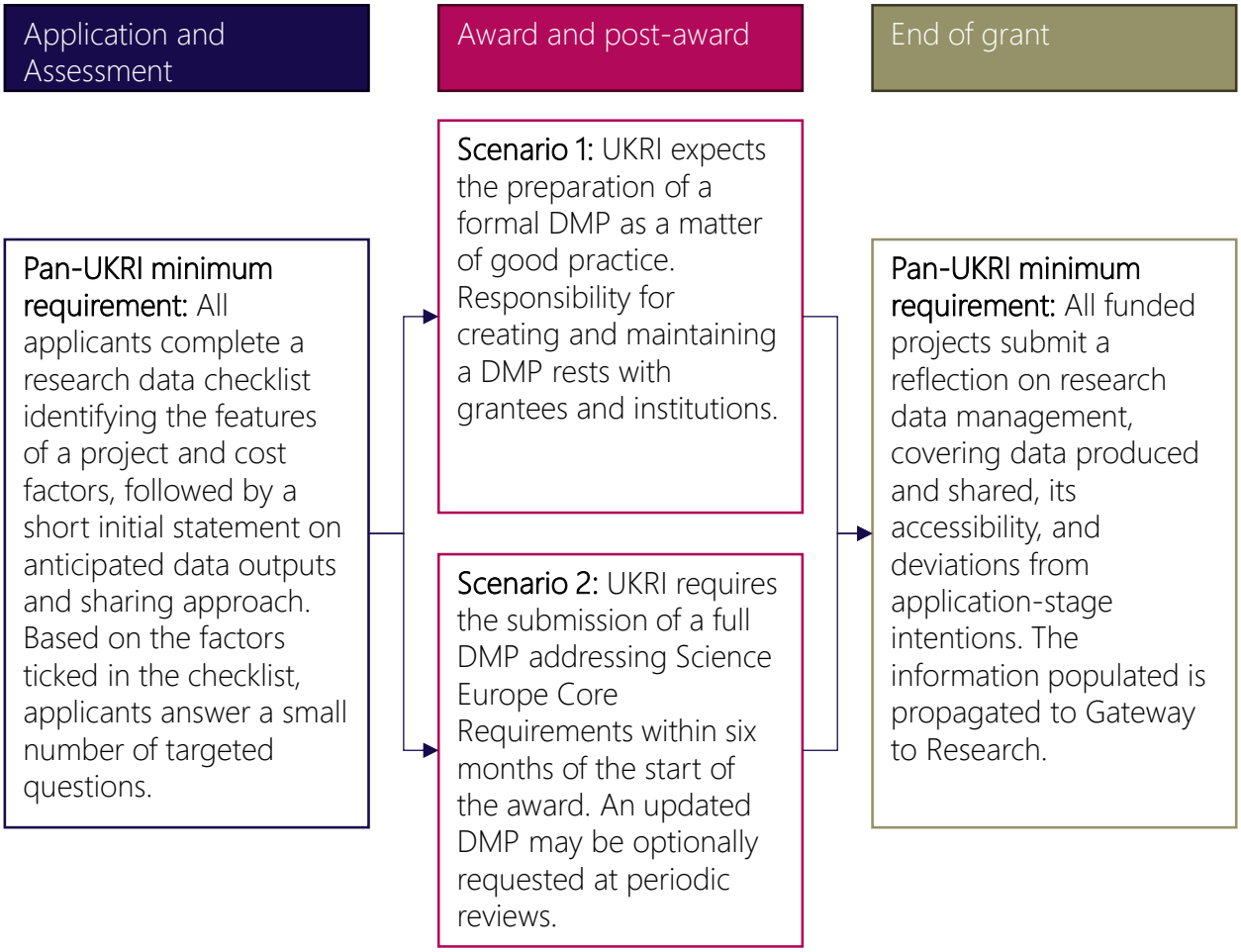
The compliance culture around DMP preparation is not unique to UKRI. Although a number of funders have begun to coalesce around shared templates (such as the Science Europe Core Template), requirements for data management plans historically developed independently, leading to a fragmented landscape. The challenges identified (e.g. requirements that ask for detail before researchers can plan meaningfully, limited capacity to engage substantively with submitted plans, and the absence of mechanisms that connect commitments to outcomes) are widely recognised across the research community. Within UKRI, these challenges have been compounded by the organisation's own history: seven disciplinary research councils, Innovate UK, and Research England each developed their approaches semi-independently before being brought together, adding a layer of internal fragmentation to an already complex external landscape. The result is a system in which DMPs are formally present in the funding process, yet largely disconnected from the practice of research. UKRI's move towards a pan-UKRI research data policy represents an opportunity not only to address its own internal inconsistencies, but to contribute to the broader international effort to make research data management more effective.

Addressing this requires more than incremental improvements to existing templates or word limits. The five foundational considerations developed through this work (alignment, timing, proportionality, structured flexibility, and resources) respond directly to the structural causes of today's compliance-driven culture and are grounded in the practical realities described by the stakeholders engaged in this review. They establish that a revised approach must be coherent with UKRI's updated research data policy and UKRI's need to fund achievable, high-quality research; proportionate to the needs of the project and occurring at the most appropriate stage in the grant lifecycle; flexible enough to serve diverse research communities; and supported by adequate resources.

The proposed framework (Figure 3) translates these foundational considerations into a concrete set of potential expectations organised around the grant lifecycle. Its most distinctive feature is the recognition that requiring data management plans where there is no capacity to engage with them meaningfully does not improve research practice and reinforces the very compliance culture the framework seeks to address. The framework therefore establishes consistent pan-UKRI requirements where they serve a clear purpose: at the application stage, where a research data

checklist and a short statement enable peer review and cost capture with minimised burden; and at the end of grant, where a structured reflection on data management outcomes creates accountability and generates evidence for monitoring and evaluation. Between these bookends, the framework allows for variation, but within bounds: councils and opportunities with dedicated data management infrastructure can require full DMPs built on the Science Europe Core Requirements, whilst others promote DMP preparation as expected good practice without mandating submissions that would not be reviewed.

Figure 3. High-level summary of the proposed framework for DMP requirements.



This approach represents a shift from process compliance to accountability in terms of outcomes. Rather than asking whether a DMP was submitted, the framework asks whether research data was considered, managed, and shared effectively. In doing so, the framework aims to create the conditions in which DMPs can fulfil their potential as genuine research tools rather than as bureaucratic obligations. At the same time, it recognises that the locus of responsibility for active research is researchers and institutions, who, in most cases, would be in charge of preparing and using DMPs.

The short-term changes proposed in this report are ambitious but achievable within current infrastructure and capacity. Their success, however, depends on several factors that extend beyond the framework itself:

- Institutionally, the variation in data management support capacity identified remains a significant barrier; without investment in professional services, training, and data stewardship (which, in the current landscape, are under significant threat), even well-designed requirements risk being undermined by the same resource constraints that limit the current system.
- In terms of peer review, the framework's effectiveness at the application stage depends on reviewers being willing to engage more deeply with data management considerations as part of their assessment. The research data checklist and short statement proposed in this framework are designed to enable researchers and reviewers alike to discuss research data management considerations without requiring disproportionate effort or excessively deep levels of expertise; at the same time, meaningful assessment will ultimately require clear guidance and a degree of practice change.
- Culturally, the shift from compliance to embedded good practice requires sustained engagement with researchers, particularly in disciplines and career stages where data management concepts are less familiar. This is especially important given that the framework would not require a formal DMP in most cases, instead asking for information that could feed into the preparation of one.
- Operationally, UKRI will need to develop robust monitoring and evaluation mechanisms to assess whether the framework is achieving its intended outcomes, both in terms of improving data management practice across the research lifecycle and in demonstrating the value of its data policy requirements. This includes building the internal processes and systems needed to capture meaningful information at the end-of-grant stage (including in light of Researchfish being decommissioned), establishing baselines against which progress can be measured, and ensuring that the data collected through reporting can be used not only for compliance purposes but to inform iterative improvements to the framework itself.

The medium- and long-term opportunities identified in this report chart a possible pathway towards a more integrated and effective data management ecosystem. Progress along this pathway will mainly depend on developments in digital infrastructure and shifts in the funding landscape. These longer-term ambitions should therefore inform strategy development from the outset, even where their full realisation lies several years ahead.

UKRI's new research data policy provides the foundation, and the framework proposed in this report offers a practical and measured route to implementation. The opportunity is to move from a landscape in which DMP preparation is experienced as a fragmented compliance exercise to one in which it is embedded as a natural, supported, and accountable part of the research process. Realising that opportunity will require commitment from the whole research community, but the evidence suggests that the appetite for change is there.

Appendix A. Project contributors

The following tables show the stakeholders that contributed to this project by group.

Table A1. Funders

Name	Organisation	Role
Aki MacFarlane	Wellcome	Open Research Specialist
Dagmar Meyer	European Research Council (ERC)	Policy Advisor
Jan Rohden	German Research Foundation (DFG)	Scientific literature supply and information systems
Katharina Rieck	Austrian Science Fund (FWF)	Senior Science Policy Officer
Marta Teperek	Dutch Research Council (NWO)	Programme Leader FAIR Research Data
Nika Stump	Preva Group	Consultant (representing experiences at the Gates Foundation)
Olivier Rouchon	French National Centre for Scientific Research (CNRS)	Head of Research Data

Table A2. Publishers, infrastructures, and service providers

Name	Organisation	Role
Becky Grady	DMP Tool	Data Management Planning Senior Product Manager
Catriona MacCallum	Wiley	Director, the Future of Scholarly Research
Guy Jones	Nature Scientific Data	Chief Editor
Iratxe Puebla	DataCite	Make Data Count Director
Joy Davidson	DMP Online	Associate Director
Kevin Ashley	Digital Curation Centre (DCC)	Director
Lauren Cadwallader	Public Library of Science (PLOS)	Open Research Manager
Marek Suchanek	Data Stewardship Wizard	Data Stewardship Wizard development team

Maria Guerreiro	Dryad	Head of Partnership Development
Matthew Dovey	Jisc	Head of e-infrastructure strategy
Rebecca Taylor-Grant	Taylor & Francis	Director of Open Science Strategy & Innovation
Sean Hill	Senscience	Co-founder and CEO
Victoria Moody	Jisc	Director of HE and Research

Table A3. Research performing organisations

Name	Organisation	Role
Alice Motes	University of Bath	Senior Data Librarian
Amie Longthorne	Liverpool John Moores University	Open Research Data Specialist
Amonida Zadissa	UK Dementia Research Institute	Associate Director of Informatics
Beth Montague-Hellen	Francis Crick Institute	Head of Library & Information Services
Bill Ayres	University of Manchester	Research Data Management Strategic Lead
Brenda Phillips	University of Leeds	Changing Landscapes Archive Officer
Catherine Jones	UK Energy Research Centre (UKERC)	Energy Data Centre Lead
Christopher Gibson	The University of Manchester	Open Research Librarian
Hannah Boroudjou	London School of Economics	Research Data Librarian
Holly Ranger	University of Sheffield	Head of Open Research
Hollydawn Murray	Health Data Research UK	Head of Open Science, Research Culture, & Impact
Jenny Evans	Westminster School of Arts	Research Environment and Scholarly Communications Lead
Jeremy Hill	British Museum	Head Of Research
Julie Baldwin	London School of Economics	Research Data Librarian
Lisa Otty	University of Edinburgh	Head of Data-led Methods
Rachel Proudfoot	University of Leeds	Research Data Management Adviser

Richard Thomas	University of Bristol	Head of Data and Systems
Robin Rice	University of Edinburgh	Data Librarian & Head of Research Data Support Services
Simon Smith	University of Edinburgh	Research Data Support Officer
Valerie McCutcheon	University of Glasgow	Research Information Manager

Table A4. Researcher community

Name	Organisation	Role
Aaron Williamon	Royal College of Music	Director, Centre for Performance Science
Carole Goble	University of Manchester	Professor of Computer Science
Clare Holdsworth	Keele University	Professor
James Baker	University of Southampton	Director of Digital Humanities
Mike Adkins	University of Nottingham	Senior Research Fellow, School of Mathematics
Neal White	Westminster School of Arts	Professor of Art and Co-Director of CREAM
Scott McLaughlin	University of Leeds	Associate Professor in Composition and Music Technology

Table A5. UKRI representatives

Name	Organisation	Role
Alex Wall	UKRI (Innovate UK)	Governance & Assurance Manager at Innovate UK
Andrea Sharpe	UKRI (NERC)	Head of Digital Infrastructure & Data
Charlotte Clarke	UKRI (NERC)	Senior Programme Manager
Chloe Kersley	UKRI	Senior Programme Manager, FLF
Cristina Magder	UKRI (ESRC)	Data Collections Development Manager
Elizabeth Newbold	UKRI (STFC)	Open Science Theme Lead

Géraldine Clement-Stoneham	UKRI (MRC)	Associate Director of Policy Information and Knowledge Management
Helen Peat	UKRI (NERC)	Head of Polar Data Centre
Hilary McNeil	UKRI	Senior Programme Manager, Interdisciplinary Responsive Mode
Joanna Dunster	UKRI (AHRC)	Head of (Research) Infrastructure
Katherine Rooke	UKRI (STFC)	Head of Programmes for DRI at STFC
Kay Yeung	UKRI	Head of UKRI Data Research Infrastructure
Lauren Swain	UKRI (The Funding Service)	Funding Policy Senior Manager
Linda Wallace	UKRI (EPSRC)	Evaluation Manager
Maggie Wilson	UKRI (STFC)	STFC Head of Skills and Programme Delivery
Myles Furr	UKRI (Research England)	Senior Policy Advisor
Nik Ogryzko	UKRI (MRC)	Senior Talent Programme Manager
Richard Brown	UKRI (BBSRC)	Senior Portfolio Manager in Data Intensive Bioscience
Richard Fleming	UKRI (Innovate UK)	Deputy Director Innovation Systems
Richard Welpton	UKRI (ESRC)	Head of Data Service Infrastructure
Richenda Houseago-Stokes	UKRI (NERC)	BODC Data Operations Lead
Sam Rowley	UKRI (MRC)	Programme Manager

A Pan-UKRI Approach to Data Management Plans

Supporting the implementation of UKRI's new research data policy

Research Consulting

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