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Expression of Interest

Project Details:

Project Name	Research Outcomes Collection System
Framework Name / Number	DDaT24525
Response required by	10/01/25
Response required to	Sian.green@uksbs.co.uk

Description of the Project

Purpose

UKRI is publishing this Expression of Interest (EOI) to i) gather key insights and conduct a preliminary survey of the capabilities of potential suppliers with a view to the possibility of issuing a formal request for proposal early in 2025, and ii) to encourage discussion with key stakeholders (other funders and research organisations) about how to better secure information about research outputs, outcomes and impact. The EOI is for UKRI to refine its requirements and establish an understanding of the market, solution options and pricing benchmarks. The EOI is not a request for proposal, is purely for gathering information, and will not impact on the likelihood that any supplier might secure a contract to provide services in 2025.

Background

UKRI needs to know about the impact of the research and innovation it supports, including through competitive awards. Data on the outputs, outcomes, and impacts of our funding is critical for UKRI for three key uses:

- To communicate the value and impact of UKRI and our investments and show that we are a responsible investor;
- To understand "what does and doesn't work" in Research and innovation strategy and delivery of funding; and,
- To monitor, in flight, the progress and performance of our funding and of UKRI as an organisation. This aids our assurance processes.

UKRI is required to account for its activities to Department for Science, Innovation and Technology (DSIT) including:

- Tracking the performance of funding programmes against their business cases (which often include monitoring research outputs);
- Capturing business-specific outputs, such as the establishment of new spinouts;
- Numbers of jobs created; and,
- Numbers of research outputs (such as publications, patents etc.).

UKRI currently captures this information through two routes i) for academic awards UKRI uses the Researchfish system provided by Elsevier ii) for Innovate UK funding, UKRI has a bespoke impact tracking survey that focuses on collecting data relevant to innovation awards.

UKRI has been subscribing to the Researchfish[1] system for more than ten years and while contracts have been renewed at regular intervals through Government procurement frameworks to secure good value for money, UKRI wishes to undertake an open procurement to ensure that we are taking full advantage of any new developments in the area.

In 2025 UKRI will mandate impact reporting from 27,000 awards (total value £20 billion, held by 17,000 researchers), optional reports will be requested from a further 25,000 awards (total value £7billion, held by 11,000 researchers). This request is steadily growing in line with the growth in UKRI funding. UKRI publishes almost all the information it collects via UKRI Gateway to Research.

Following the Government commissioned independent review of research bureaucracy, the Department for Science, Innovation and Technology (DSIT) recommended in the Government response to the review that UKRI should "consider all alternative options" for any future research outcomes collection system. This reporting process is considered a significant part of the burden on those required to report and an area with potential for improvement. UKRI is working with DSIT and other funders to continue to identify ways to reduce research bureaucracy, not only in impact reporting, but also in other areas of funding assurance.

An existing contract with Elsevier is in place, which will expire in April 2025. UKRI is to engage the market and prepare to run an open tender exercise for a future solution. Suppliers will be encouraged to propose new and innovative approaches to data collection, with the aim that the first data collection using the new approach can be conducted from early 2026. Migration to the new approach would need to be carried out in Financial Year 2025/26.

UKRI acknowledges the importance of taking full account of the wider research system in which UKRI operates. UKRI do not want to increase the reporting burden and financial cost of operation to other parts of the sector by choices made regarding its solution for collecting research outcomes.

Key features of the current impact reporting process

UKRI would like to streamline the submission and reporting of research outcomes that reduces manual effort and minimises data handling complexity. The desired system should provide an end-to-end automation for data submission, validation, harvesting and reporting, ensuring a more efficient and user-friendly experience for researchers, administrators, and other stakeholders. Additionally, the system must support all types of awards, such as block grants, project-specific grants and sub grants. It should:

- Provide functionality to link outcomes at both the block grant level and any associated sub-grants, allowing for hierarchical reporting and easy tracking of outcomes across funding levels.
- Support flexibility to accommodate evolving funding structures and reporting requirements, maintaining adaptability to future UKRI needs.

Core Functionalities for Research Outcome Collection System

The high-level attributes of the desired system must incorporate the following core functionalities to meet UKRI's requirements for a robust and efficient platform. UKRI would like to understand how suppliers, providers of data and other stakeholders will help it to realise these functionalities. We welcome responses from stakeholders that can address any part of the following functionality and are open to working with potential supplier or suppliers to develop an overall service. UKRI also welcomes advice from and discussion with key stakeholders (other funders and research organisations) about how to better secure information about research outputs, outcomes and impact:

a. The system must demonstrate flexibility to adapt to the diverse and evolving needs of research data collection and reporting. It should support configurable data fields and conditional logic that triggers specific forms or workflow based on award type and reporting requirements, all without requiring significant system reconfiguration. The system will be required to have a self-service mechanism for Research Organisations (ROs) to initiate change requests that align with the specific needs of each research context. UKRI needs to be able to tailor the data we collect to each award rather than having to ask the same questions of the entire UKRI portfolio. We also need the functionality to easily securely share data between organisations using the service, subject to clear terms. While it is anticipated that data collection will primarily remain an annual exercise, the current approach is open for researchers to update their information at any time and this flexibility should continue. UKRI also seeks to continue the ability to run targeted data submission processes for groups of awards/investments at different points in the year.

b. The system will provide a reliable foundation for UKRI's reporting and evaluation needs by prioritising the collection and aggregation of high quality and validated data. It should support real-time data validation at the point of submission, automate metadata enrichment by leveraging integration with external sources, and aggregate outcomes data for UKRI's consumption.

c. UKRI requires the system to seamlessly integrate with its internal system and leverage external data sources for metadata enrichment and validation. To further enhance data completeness, the supplier is expected to incorporate data repositories with Research Organisations (ROs) as part of the data harvesting and validation process.

d. The system must be interoperable, enabling API-driven access and compatibility with a wide range of platforms, tools, and data formats. Key features include:
- Provision for robust APIs to enable UKRI interact with the system for data ingestion.
- Support for widely adopted data formats and adherence to interoperability standards including persistent identifiers such as ORCID IDs, DOIs and RORs.
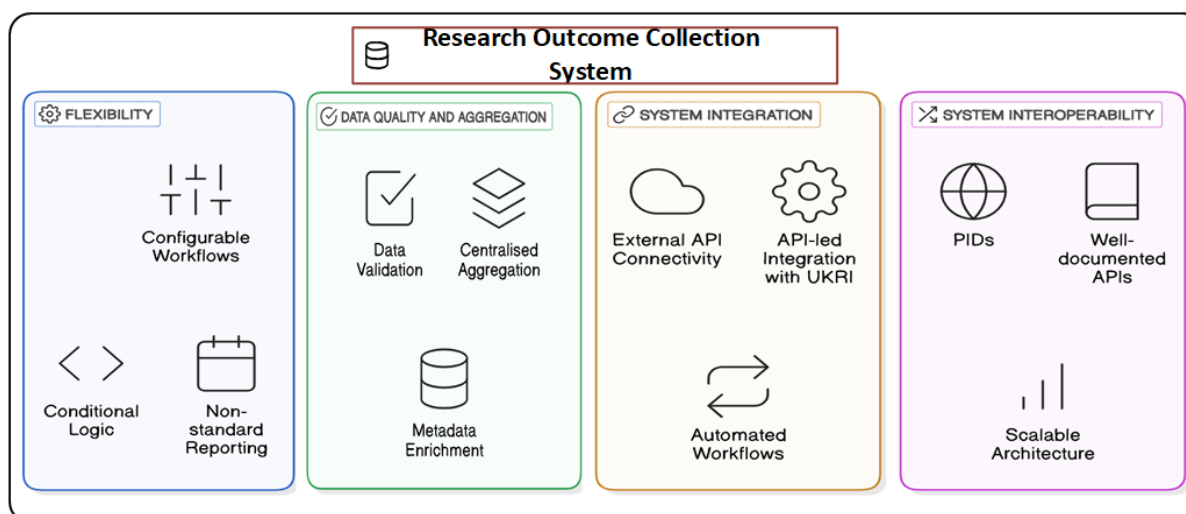- Integrate with future systems and handle increasing data volumes.

Figure 3.1: Research Outcome Collection System Core Functionalities

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Data Ingestion, Enrichment and Delivery Pipeline

The current and desired capabilities relate to the end-to-end data management pipeline, which entails data submission to the supplier, data ingestion by the supplier, data harvesting from external sources and a secured delivery of the enriched data back to UKRI. Each stage of this pipeline is critical for ensuring that UKRI receives high-quality, validated, and comprehensive data on research outcomes in a timely and efficient manner. Data interoperability is a critical component of the data pipeline, enabling UKRI to achieve enhanced consistency and automation throughout the data lifecycle. The pipeline must adhere to established interoperability standards, such as persistent identifiers (e.g., DOIs, ORCID IDs, and RORs), to support improved data quality and metadata enrichment from external sources.

Data Submission to Supplier:
Currently, data submission from researchers to the supplier occurs through a web-based portal that accepts data inputs and a variety of data types, including outcomes, publications, and collaboration details. While functional, the process has some limitation:

- Automate Data Validation Checks: To reduce errors at the point of entry, UKRI requires an automated data validation layer that checks for data completeness and metadata accuracy (external source) as researchers submit their information. This would minimise the need for manual data correction and ensure higher data integrity upon entry.

- Configurable Data Collection Fields: The system must balance a "one size fits all" standard collection with the flexibility to support bespoke targeted data requirements. This allows for configurable data fields and conditional logic that can be tailored to specific awards or research grants would enhance data relevance, minimise the level of enrichment internally and meet UKRI's reporting needs.

Data Ingestion by Supplier
The periodic data ingestion of RHT (Responder Hierarchy Tables) files in Excel format is achieved via secure file uploads and SharePoint for ease of retrieval. There is an immediate need for expansion of file storage and management to accommodate large RHT files. UKRI would expect an API-led integration that supports larger datasets and reduces manual interventions.

Data Harvesting from External Source
The supplier enhances data submission by harvesting additional metadata from external sources such as ORCID, CrossRef, PubMed etc. This enrichment process relies on API-based integration, which links research data with persistent identifiers (PIDs) and author metadata, thereby improving data quality and traceability. Expanding the integration to Research Organisations (ROs) trusted data repositories, would offer a more comprehensive dataset for UKRI's consumption. UKRI specifically seeks advice from both research organisations and suppliers that work closely with UK research organisations on ways to include more of their data in the collection process.

Data Delivery to UKRI
The current data delivery process involves the supplier returning enriched outcome data to UKRI via Secure File Transfer Protocol (SFTP) and cloud-based repositories. Data is delivered in snappy.parquet format, leveraging its efficient compression and decompression capabilities to handle large datasets. While the current setup delivers outcome data securely, it relies on batch transfers, which can introduce data latency. UKRI is open to exploring real-time or event-driven data ingestion mechanisms.

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Data Governance

It is crucial that UKRI's Research Outcomes Collection System has a robust data governance mechanism so that it can guarantee data integrity, security, and compliance with regulatory requirements. The following governance framework outlines the required standards and expectations to maintain UKRI's accountability, protect research data and facilitate responsible data use:

Data Quality and Integrity:
The system must support automated validation checks during data entry, ingestion, and processing to maintain high data quality. This includes meeting predefined standards for accuracy and completeness.

Data Security and Compliance:
The governance framework must comply with relevant data protection regulations, such as GDPR, to protect personal and sensitive information and support transparency and accountability. It must meet UKRI's security policies, which include ISO 27001 certification, secure encryption both at rest and in transit, as well as mature access controls, such as multi-factor authentication (MFA).

Data Lineage and Traceability:
It should provide a transparent data lineage model that tracks data's origin, transformation, and flow throughout its lifecycle. This traceability demonstrates that all data sources, changes, and interactions are documented, supporting UKRI's commitment to data accountability.
Data Retention and Disposal:
The system must have data retention and disposal processes, which align with UKRI's systems retention requirements. It should include automated mechanisms to archive or securely delete data as needed, ensuring that only relevant data is retained within the system.

Contract Management and Support

UKRI requires effective contract management and support services throughout the lifecycle of the system that guarantees user satisfaction, data security and system performance. The following requirements outline UKRI's expectations for contract oversight, performance monitoring and ongoing technical support:

Service Level Agreement (SLAs):

The supplier must commit to clearly defined Service Level Agreements (SLAs) covering key performance metrics, such as system availability, data processing times, response times for issue resolution and user support. These SLAs should align with UKRI's operational needs and include remedial measures for non-compliance.

Support Model:

UKRI requires a robust support structure that includes dedicated technical support channels accessible to researchers, administrators, and stakeholders. Support services should include multi-tier support options (e.g., Level 1, Level 2, and Level 3 support), with a clearly defined escalation path for resolving critical issues promptly.

System Maintenance and Updates:

The supplier will be responsible for providing regular maintenance, including proactive monitoring, troubleshooting, scheduled updates, and patches. Updates should cover enhancements to functionality, security patches and any compliance adjustments. UKRI expects that these updates will be implemented with minimal disruption to users, ideally during off-peak periods.

Incident Management and Resolution:

The supplier must have a structured incident management framework that addresses service disruptions and data breaches or security incidents. There should be regular audits and assessments to help identify and mitigate potential vulnerabilities within the system.

Change Management:

UKRI expects a formal change management process from a supplier that allows for controlled and documented updates to the system's configuration or functionality as requirements evolve.

Performance Monitoring and Reporting:

The supplier must provide UKRI with access to real-time performance data. Additionally, regular performance reports detailing system usage, availability, response times, and identified incidents or issues will be required to assess service performance against SLAs.
UKRI will want to be offered a pricing structure that is clear and predictable. Importantly the charging approach should where possible encourage high quality data to be captured at source in the most efficient way.
UKRI needs a clear development roadmap and opportunity to shape this alongside other customers and stakeholders so that UKRI understands how the service will develop and the timing of new functionality.

Annex 1: Research outcomes monitoring – data requirements

This annex provides examples of the output, outcome, and impact types that UKRI needs to collect through a research outcome monitoring system.

The final specification for outcomes and level of detail needed will be subject to discussion with UKRI stakeholders and informed by responses provided to the Request for Information. Inclusion here does not necessarily indicate inclusion in the final tender in 2025.

Full coverage across all awards in the system	
Publications	All research-related publications that were published or accepted as a result of a UKRI grant and in which members of the research group were named authors. Should capture all types of publication, for example books, conference proceedings, journal articles, monographs etc.

	Collected with a unique ID and collection to maximise the use of automated approaches to gathering this data from institutional/public repositories of bibliographic data. Examples of potential repositories to link to are PubMed, Web of knowledge, Scopus, Cross ref, EthOS[2], OpenAlex, CORE, DOAB, OAPEN. Preference should be given to utilising open access and public sources of information. Manually entered data must be minimised, but may require appropriate fields for the user to search/complete information, such as: • Type of publication • First named author • Title of publication • Journal • Page numbers • Date of publication
Collaborations and Partnerships	Details of collaborating organisations and partnerships. Data is needed on both collaborations and partnerships pledged at application stage and on new collaborations and partnerships arising during the lifetime of the award and beyond. **Integration with data collected via UKRI's application systems is vital to prevent duplication of data collection and so routes for utilising reference data provided by UKRI and external authoritative sources of organisation and researcher information will be needed.** Verification of data provided at application stage is needed to confirm the collaboration was realised. Manually entered data must be minimised, but would require appropriate fields for the user to complete, such as: • Details of each partner or collaborating organisation involved in the collaboration. • Type of organisation • When the collaboration commenced and its status (such as "active" or "finished").
Further Funding and Leverage	Details of further investment and funding received (including in kind contributions) including breakdowns by: • Further funding or leverage intended to support the research grant itself (including both that which was pledged at application stage necessary for the research to proceed, and accompanying investment over and above this). • Further funding or leverage that is intended to take forward or advance the outputs of the research grant.

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	Integration with data collected via UKRI's application systems is vital to prevent duplication of data collection. Verification of data provided at application stage is needed to confirm the investment was realised. Manually entered data must be minimised, but would require appropriate fields for the user to complete, such as: • Where the investment has come from (linked to data on collaborations and partnerships) • Type of further funding or investment (e.g. in kind, financial contribution) • Total value of the investment/funding or what the in-kind contribution was • When the investment/funding was received
Spinouts	Details of the formation or growth of companies resulting from the research. **Use of Company Reference Numbers are essential.** Pre-population with data collected by Universities via the HE-BCI survey could reduce burden on manual entry significantly. Manually entered data must be minimised, but would require appropriate fields for the user to complete, such as: • Name of company • Year established and country in which the company is based • Approximate number of staff employed
Intellectual Property and Licensing	Details of the formal protection sought for discoveries (e.g. patents), or acknowledgment that no formal protection is required (e.g. expertise). **Collected using a unique ID and maximising links to APIs as appropriate.** Examples of potential repositories to link to are European Patent Office, and UK Intellectual Office. Manually entered data must be minimised, but would require appropriate fields for the user to complete, such as: • Type of protection • Brief description • When the protection was received
Research Products	Details of other research products and outputs to include: • Medical products, interventions, and clinical trials • Artistic and creative products • Software and technical products • Research tools and methods • Research datasets, databases, and models **Collected using a unique ID and maximising links to APIs as appropriate.**

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	An example of a potential repository to link to is DataCite.
	Manually entered products must be minimised, but will require appropriate fields for the user to complete, such as: • Type of product • Stage of development • When the product was completed

Coverage only required for a subset of awards as determined by UKRI - flexibility is needed to incorporate additional outputs, outcomes and impacts specific to certain awards as our requirements evolve.	
Engagement	Ways in which the research team have disseminated their work and engaged with non-academic audiences. • The type of activity that took place (e.g. talk, magazine article, working group etc.). • The primary audience for the activity (e.g. public, professionals, policymakers etc.) and the geographic 'reach.' • When the activity took place. More detailed data on engagement activity needed for specific public engagement awards (such as those administered by STFC).
Policy Influence	Ways in which the research has influenced policy setting processes or ways in which the research has influenced recommendations in policy documents. • The type of influence on policy (e.g. citation in clinical guideline or systematic review, participation in an advisory committee etc). • When the influence on policy was realised, and its geographic reach.
Next Destination and Secondments	Information on the movement of individuals who work on the award being reported on. For active awards: • The next 'established' destination for any individuals who leave the research team (including on temporary secondment, placement, or internship to another organisation) and when. • The origin of anyone who joins the research team (including on temporary secondment, placement, or internship from another organisation) and when. For awards that have ended: • The next 'established' destination of all individuals.
Key findings	Brief description of the findings of the research including what was discovered or developed through the research and whether this met the original objectives or not.

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Narrative impact	A description of the overarching impact of the research, including how the findings of the research have been used by which sectors, including the types of impact that have arisen from the research, and the year these impacts were realised.
Patient and public involvement and engagement	Whether patients and/or members of the public have been involved in the research process. Details will be needed on: • How patients and/or members of the public were involved. • Factors that contributed to the success of the involvement. • Challenges of the involvement. • What difference the involvement made to the research.
Impact on the 3Rs	Whether the research has led to the development of new or refined methods that have the potential to contribute to the replacement, reduction, or refinement (3Rs) of the use of animals in research. If so, details of what the development is.

This form is an expression of interest only; the full details of the project and the desired outcomes will be provided in the Further Competition.

Procurement Plan / Dates and Budget

Project budget – up to £900k estimated, over a 2 year period.

EOI Initial Response date – 10/01/2025

Supplier Engagement Day – W/C 20/01/25

Indicative advertising timescales for a further competition – February 2025

Indicative contract start date – June 2025

Contract end date – June 2027

Please note this information is for preliminary market engagement and may not result in a tendering opportunity.

Validation Questions

To ensure that this procurement maximises appropriate bidder responses we have the following questions that we would like to pose to interested suppliers:

1. **Supplier Capability** – Please can you confirm if this project is something that your organisation has the capability to undertake based on the detailed requirement and your current resources?

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2. **Procurement Timescales** – Based on the indicative timescales for advertising this procurement, would your organisation have capacity to provide a tender response? If your response would be 'No', we would be grateful for any further relevant details on why you would not have capacity to respond based on the timescales advised.
3. **Project Budget** – Please can you advise if you believe the available budget detailed above would be suitable for the scope of Services we require?
Please advise on your costs in relation to your proposed solution, including a breakdown of costs in relation to product functionality as this will allow us to make informed decisions on the overall product scope.
4. **Project Scope** – Based on the procurement scope provided, please can you advise if there is any further information that you would require to be able to support a bid response?
5. **Contract Mobilisation** – Please provide a breakdown of indicative timescales for contract mobilisation. Please detail the end-to-end process including, but not limited to, product development, implementation and roll out.

Response from Supplier:

We are inviting interested suppliers to respond to the above questions by completing this questionnaire LINK HERE by Friday 10th January 2025.
By responding to the questionnaire, you will be engaging in non-competitive dialogue which will enable UKRI to develop and assess the market's appetite, concerns and view on the formulation of its requirements. UKRI may consider the information and responses received as part of the questionnaire to help inform the specification and further decision making in relation to the planning and conduct of the procurement, ensuring all valid options are considered.

Additional supplier engagement will take place in the form of a supplier day during the week of 20th January 2025. Should you wish to attend this session please provide the contact details for the attendees to ddatprocurement@uksbs.co.uk

The idea behind this session will be to provide you with further details of the current requirement and allow an opportunity for questions and answers prior to this requirement going live. There may also be an opportunity after this session for one to one meetings if it is deemed this is required.

This notice is not a Call for Competition; a Contract Notice will be issued as a call for competition. Not providing a response to the questionnaire shall not prevent any supplier from participating in a future procurement, nor is it intended that any information as part of the market consultation will place any supplier at an advantage in a potential procurement process.