

Smart Data Research UK data services

Indications of interest

June 2023

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1. Summary

We are inviting indications of interest to deliver the next stage of Smart Data Research UK (formerly Digital Footprints) data services. The data services will build long-term partnerships with data owners and deliver hundreds of research-ready and linked data sets on equal access terms to all accredited researchers.

We are interested in ideas ranging from large scale initiatives involving consortia of research organisations to small scale interventions. Your indication of interest should be scaled according to the maturity of the research landscape in accessing and working with the data being targeted.

We have not set funding limits for indications of interest. We have initially **allocated £30 million** core funding for the data services from late 2024 to April 2029. You must be based at a UK research organisation eligible for ESRC funding and we will fund 80% of the FEC.

The indications of interest stage will run from 15 August 2023 to 10 October 2023. Your indication of interest should be submitted via the UKRI Engagement Hub [here](#). If you would like to discuss your ideas with us, please contact: smartdataresearch@ukri.org

Applicants will be eligible to submit to the full call for data services to be launched early 2024, regardless of whether they have submitted an indication of interest.

In parallel we are engaging on our strategy for Smart Data Research UK. The strategy engagement exercise is available [here](#). We recommend you read the strategy engagement exercise before reading this document. Please note information on Smart Data Research UK may change based on strategy feedback and the information received through the indications of interest.

2. Background

Smart Data Research UK is a new UKRI investment in digital research infrastructure. It will deliver a step change in the use of new forms of data generated through everyday interactions with digital devices – including mobile apps, digital marketplaces, social media, wearables, satnavs, sensors, and smart technology. Such data, sometimes referred to as ‘digital footprints data’, can provide new insights about major social challenges such as energy security, the cost of living, climate change, emergency response, health, wellbeing and social mobility.

Our strategy sets out the aim, objectives and delivery approach for Smart Data Research UK alongside the opportunities and challenges associated with digital footprint data. Please refer to the strategy for further information when writing your indications of interest.

Phase one launched in April 2022 and will end in 2024. An investment of £10 million, it is comprised of three main components:

- Data services delivered by [Consumer Data Research Centre](#) and [Urban Big Data Centre](#)
- An accelerator scheme supporting innovative proof of concept projects
- [A Strategic Advice Team](#) led by [Professor Rachel Franklin](#) providing strategic advice to ESRC on the development and delivery of Smart Data Research UK.

Phase two of Smart Data Research UK is a **£49.3 million investment** from the [UKRI Infrastructure Fund](#) from 2023 to 2029.

3. Who can respond and how

Who can respond?

You must be based at an organisation to be eligible for funding and [UKRI would fund 80% of the full economic cost](#). Before submitting indications of interest please check the following:

- [the eligibility of your organisation](#)
- [the person eligibility criteria](#)
- [ESRC funding Guide](#)

How to respond

Responses are invited via the UKRI Engagement Hub by the 10 October 2023 at this URL: <https://engagementhub.ukri.org/esrc-strategic-hub/smart-data-research-uk-data-service-ioi>

If you would like to discuss your ideas with us, please contact: smartdataresearch@ukri.org

Respondents can provide more than one indication of interest which set out different visions and approaches. If respondents are submitting more than one indication of interest, they should clearly state an order of preference for the indications of interest submitted.

Please provide a succinct and compelling narrative for your indication of interest which includes:

- What is the vision for your proposal and how will it contribute towards the aim and objectives of Smart Data Research UK (4000 character limit)?
- What data service(s) do you propose to deliver, what are the priority datasets or data suppliers you envisage targeting and how do you see this supporting research related to our thematic pillars (4000 character limit)?
- How will you contribute towards the Smart Data Research UK theory of change and how will your work address the challenges identified within the Smart Data Research UK strategy (4000 character limit)?
- What projects would you carry out to develop the service (2000 character limit)? E.g., new methods; Proof of concept research; training, relationship building and networks
- Who are your potential project partners, how will they support delivery and what co-funding could be provided (2000 character limit)?
- Who will be applying for funding (2000 character limit)?
- What are the ethical, legal and public considerations of your work and how will these be addressed (2000 character limit)?
- A high-level cost estimate for your proposal broken down by financial year (2024/25-2028/29) (4000 character limit). Guidance on costs is available on the [UKRI website](#).

Please note respondents will not be held to their indications of interest. Respondents will be allowed to revise their plans and indicative costs presented so that their proposal aligns with the full call for data services when published in early 2024.

4. What we are looking for

Smart Data Research UK will embark on an ambitious data acquisition programme through a cohort of grant-funded data services. We are inviting indications of interest to deliver Smart Data Research UK data services. The teams delivering these services will build long-term partnerships with data owners and deliver research-ready datasets to accredited researchers. We envision these services as embedded in existing or new centres of capability in the UK research landscape. The strategic hub will provide leadership and coordination to enable the data services to develop federated capabilities incrementally.

Strategy

Our [strategy](#) sets out the aim, objectives¹ and delivery approach for Smart Data Research UK alongside the opportunities and challenges associated with digital footprint data. Please refer to the strategy for further information when writing your indications of interest.



Thematic Pillars

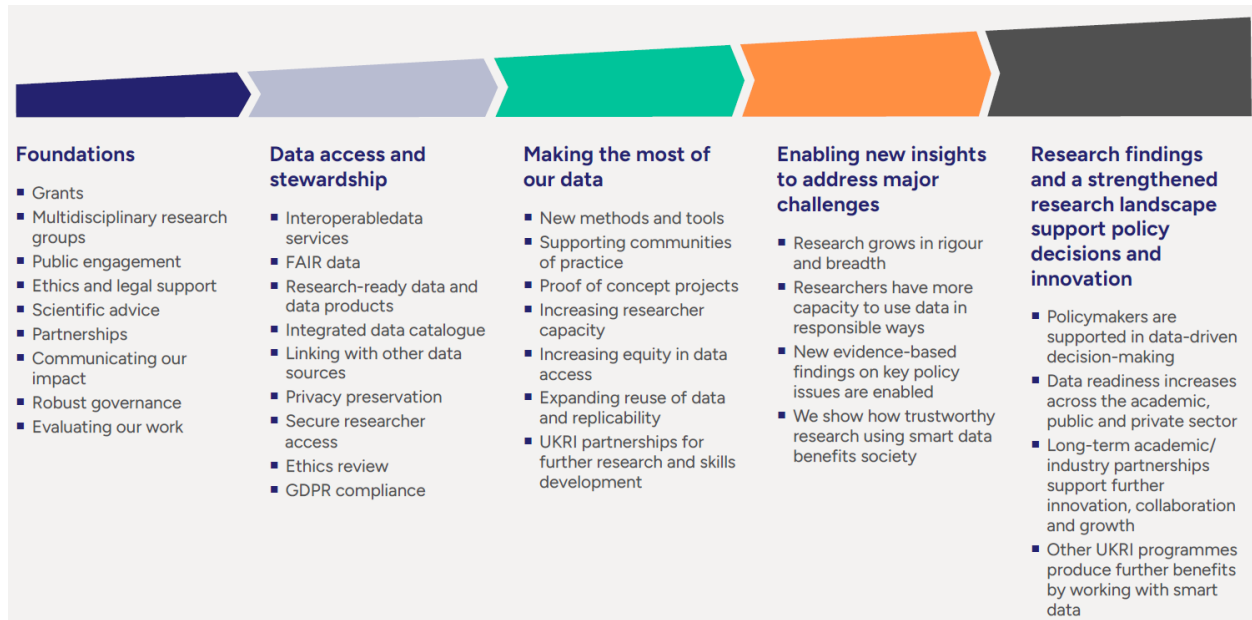
Four thematic pillars will guide our priorities for data acquisition, collaboration, and partnerships, ultimately leading to research findings that are impactful and aligned with peer projects and priorities across UKRI, government, and beyond. Our pillars are:



¹ Please note the strategic hub will lead a programme of public involvement and engagement and will establish a dedicated ethics and legal resource.

Theory of change

We will meet our goals through activities delivered and supported by a range of programme participants. Our role and the wider community's role, including advice and input, are described in our theory of change. Applicants should describe how they can contribute towards this within their indications of interest:



Data

Grant funding to the services will include budget to source data from companies and make this data ready for use in research. Data within scope of the data services include but are not limited to:



We recognise that these data and categories are not mutually exclusive, and we are open to framings that focus on different data types or use another lens to build a service.

Leadership, collaboration and coordination

The Smart Data Research UK strategic hub will work with partners across the UK and internationally, leading and coordinating the Smart Data Research UK. Alongside the strategic

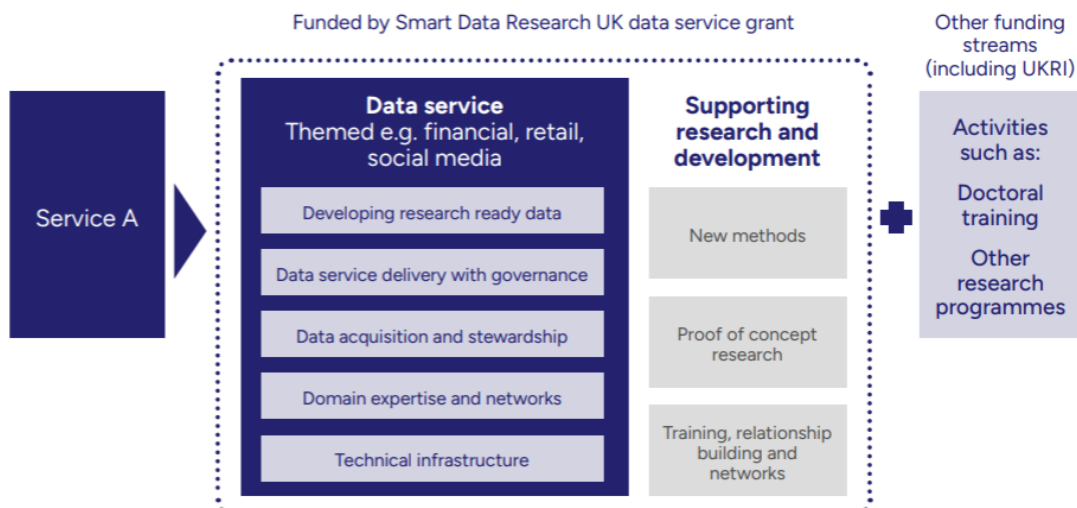
hub, the data services will be required to work closely together and in alignment with the wider landscape² to:

- work collaboratively to deliver an efficient and effective set of coherent data services
- cultivate interoperability and avoid the creation of silos
- address critical gaps within the landscape and take advantage of strategic opportunities as they arise
- lead programmes of outreach and engagement to support the delivery of data services that deliver for a broad community of users and support equal access to data
- provide a unified voice for the smart data research community, feeding into relevant policy and legislative development
- undertake programmes of public involvement and engagement to provide an ongoing dialogue with the public, enabling the discussion of key questions regarding public interest, privacy and security, and trust and transparency

The Smart Data Research UK data services will be required to work collaboratively and align with the wider data infrastructure and digital research infrastructure landscape.

Capabilities

The following diagram describes the capabilities and activities a data service is likely provide. Specific capabilities and activities will vary based on a service’s area of focus and maturity of the research landscape in accessing and working with the data being targeted.



Technical infrastructure and governance

Data services will be required to partner with other infrastructure providers to build on existing and emergent digital research infrastructure, ensuring funding can be devoted to filling gaps in the landscape and meeting technical needs arising from obtaining new data with unique privacy, security, and access requirements arising from partnerships with data owners. This approach

² For example, working towards the findings and recommendations arising from programmes such as ESRC review of the Future Data Services or leveraging opportunities provided through the UKRI Digital Research Infrastructure Programme.

will ensure value for money by maximising existing infrastructural assets, while allowing the programme to remain responsive to digital research infrastructure requirements.

The data services will need to demonstrate that they can work collaboratively, coming together with the strategic hub to work on aligned approaches (where appropriate) to:

- **Discovery and curation:** including data catalogues and metadata.
- **Data access, user support and training:** including data acquisition strategies
- **Technology and methodological development:** software and tools, including privacy enhancing technologies, data storage, management and curation architecture, and connections to wider digital research infrastructure, including high performance computing¹ and analytical tools.
- **Processes and governance:** Streamlining and harmonising where possible, e.g., ethical approval and licencing.

The following principles will guide decisions about data standards and interoperability, governance, and the end user experience:

- **Use and impact driven:** We will focus on demonstrably addressing the needs of users, including researchers and data owners, and prioritising use cases where there is evidence of the greatest opportunity for impact in line with our thematic pillars.
- **Agile:** We will learn through small-scale testing and pilots, and we will be open to new ideas from the wider digital research infrastructure landscape.
- **Collaborative:** Through strategically aligned partnerships and close working, we will connect data, people and systems.
- **Holistic:** Technology is only one part of the picture: leadership, culture, institutions, legal frameworks and skills matter too.
- **Effectively governed:** We will assure that security, privacy, and licensing standards are managed in a consistent way across partners.

Supporting research and development

Funding will be available initially to the Smart Data Research UK data services for a variety of research, innovation and development activities. Activities could include:

New methods

- Methodological development to address challenges around representativeness, uncertainty, provenance, bias and understanding of proxy measures or causal insights.
- Research testing new methods and use cases.

Proof of concept research

- Research demonstrating the value of new digital footprint data sources to encourage wider use and utility.

Training, relationship building and networks

- Training and relationship building activities directly focused on the creation of long-term assets and training of staff to operate the infrastructure. This includes data fellowships, data study groups, camps, sabbaticals and internship schemes.
- Workshops and network building activities to bring together technologists, researchers, data scientists, and data owners to identify problems and build solutions harmoniously and consistently.
- User support and training.

Future accelerator calls

Smart Data Research UK will periodically publish funding calls, open to the research community for projects to:

- Develop new tools and methods, addressing major challenges around representativeness, uncertainty, provenance, bias and understanding of latent/proxy measures or causal insights
- Build researcher capacity to work with digital footprints data
- Pilot access to and use of new data sources
- Support interdisciplinary and cross sector collaboration focused on pressing national and international challenges

We will seek to collaborate with other UKRI programmes, working in partnership to drive use of the new data sources, methods, and infrastructure to foster research and policy impacts related to the pillars.

5. What we are seeking

Indications of interest

We are inviting indications of interest to deliver Smart Data Research UK data services. Indications of interest should provide a succinct and compelling narrative which addresses the points set out above in the 'who can respond and how' section.

Expertise and scope

We are seeking teams of interdisciplinary experts to lead the data services, combining subject matter and/or sector-specific expertise with strengths in delivering digital technology, data infrastructure, data science, and private sector partnership development.

Smart Data Research UK is aligned with UKRI's equality, diversity and inclusion (EDI) strategy. We recognise the value of diversity of thought, people and ideas. Measures to support and encourage EDI will be embedded across the Programme and we will expect respondents to consider how EDI could be encouraged within Smart Data Research UK data services.

We are interested in ideas for the delivery of data services at different levels of maturity and at different scales. This could be:

- large-scale longer-term indications of interest involving consortia of research organisations combining data services to deliver clear benefits to the community through for example, economies of scale, providing longer term stability and sustainability
- small-scale shorter-term proposals reflecting the landscapes maturity in a specific area

6. What will we do

We will not provide peer reviewed feedback on the scientific quality of your indication of interest, but we will provide high level feedback on strategic fit to the Smart Data Research UK portfolio.

This could include providing feedback on contribution towards:

- The aim and objectives of Smart Data Research UK
- Priority datasets and suppliers
- Our thematic pillars
- Addressing the barriers to using smart data
- Project partners and co-funding

ESRC will take a portfolio approach to developing the data services. The complementarity of approaches across the portfolio will be a key element of consideration. This will include considering the maturity level of potential data services, including the potential for innovation and risks to delivery.

We will work with respondents during the indications of interest process to connect respondents where there may be opportunities for collaboration or consortia. A workshop will be held in Autumn 2023 to help build networks and partnerships.

We will not publish indications of interest, but we will use the information provided to help:

- Write the full call specification for Smart Data Research UK data services
- Smart Data Research UK understand the strategic landscape and the strategic fit of potential proposals to the call for data services
- Identify potential partnerships and collaborations between potential applicants

The full call for data services will be launched in early 2024, with multi-year grant funding awarded through a competitive peer review process, in line with UKRI's [principles of assessment and decision-making processes](#).
