





UK Data Service Strategy

2024-2030

Trusted data for a stronger society



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Introduction

The UK Data Service stands as the premier repository for social, population, and economic data in the UK.

Hosting the largest trusted digital archive of its kind, our expertise in the collection, preservation, and dissemination of data is the culmination of nearly 60 years of sustained investment by the Economic and Social Research Council (ESRC) in the UK's research data infrastructure. Meticulously curated over this period from trusted data providers including government, the Office for National Statistics, the ESRC, and diverse other funders and data owners, our digital collection comprises nationally and internationally significant datasets such as the Census, Understanding Society, the UK Cohort Studies, the Labour Force Surveys, the Family Resources Surveys, and many others.

The data landscape in which the Service operates is undergoing unprecedented change at rapid pace. In response, the Digital Research Infrastructure Committee (DRIC) in the UK is investing in new large-scale computing and secure data infrastructures, while also increasing skills capacity for data infrastructure staff.

Further afield, the European Open Science Cloud (EOSC) is progressing towards connecting, integrating and federating international research infrastructures.

Such initiatives necessitate the re-evaluation and modernisation of traditional data service practices.

The challenge confronting data infrastructure services like the UK Data Service is to streamline the research data lifecycle enhancing its efficiency and effectiveness. To achieve this, it is important to acknowledge the importance of upstream data service activities, well before the data are made available to researchers for analysis and knowledge creation.

Our objective is to make it quicker and easier for researchers to get the data they need, when they need it, reducing the time and effort currently expended in accessing and preparing complex datasets for research.

There is a clear requirement to be able to perform these tasks at scale and this demands a strategic commitment to automation, not for its own sake, but because it will yield much better services for our users and quicker access to the data they need. This means investment in people and processes as well as technology.

We are working towards a landscape in which "services" are clearly defined, standardised, and then consolidated. This will enhance the prospects for successfully aligning metadata, workflows, and rights management across multiple stakeholders and multiple domains.

In partnership with













We will progress beyond a focus on individual publications and the static data files that support them towards a treatment of our complete data holdings as a flexible and granular interconnected resource. This means a commitment to developing a workforce with enhanced data engineering and modelling skills, along with a commitment to the automation of purely human-mediated workflows.

As we adopt cloud-based infrastructure blueprints we will recognise and embrace Al and Machine Learning as foundational rather than auxiliary components of the research data lifecycle. Fine-grained metadata for the data and accompanying resources is a foundational requirement for this machine processing to take place.

Through our trusted reputation and expertise, we have crafted lasting, collaborative relationships with national and international stakeholders to maximise impact through long-term access to data.

As experts in data governance, ethics, and training, we advance and share best practice with other archives, data repositories and research organisations, both nationally and globally, and continue to deliver outstanding user support.

We aim to be global leaders in implementing and championing standards-based services and digital object management, throughout the research data lifecycle.





A shared future

At the UK Data Service we are excited about these **future challenges**. We know that the world of data is rapidly changing, and we are ready to evolve with it, driving innovations, and setting new benchmarks. In line with **UK Research and Innovation (UKRI)** objectives, we aim to foster **world-class ideas**, **innovation**, and **impact**.

We are continually **exploring new ways to enhance our services** and provide more value to our users. We firmly believe that our role goes beyond the mere provision of access to data: we see ourselves as partners in research, enabling the **creation of knowledge** and the pursuit of a more effective national and international policy for societal good.

Our vision

Our **vision** is for economic, population, and social research data to drive an innovative and thriving research and policymaking ecosystem, leading to enhanced knowledge, better decisions, and improved outcomes in society.

Our mission

Our **mission** is to catalyse impactful social science research by providing access to high-quality, curated and trustworthy datasets of national strategic importance; fostering data literacy; and contributing to the advancement of knowledge through dynamic data infrastructure and strategic partnerships.





The five pillars

We have set out **five strategy pillars** as a foundation for achieving our goals under each of which we have defined three strategic objectives - see **Appendix A** (page 15) for a full summary.

Data enabled infrastructure

Pioneer innovative infrastructure for data-enabled social science research.

Data quality and trust

Provide access to high-quality and trustworthy data for social science research.

Data curation and active preservation

Curate and actively preserve research data for long-term access, use, and reuse.

Data literacy and capacity

Foster data literacy and capacity for research data sharing, use, and reuse.

5 Advocacy and outreach

Evidence and promote the impact of economic, population, and social research data.





Our enabling role

We collaborate directly with **data producers**, **researchers**, and **educators** across numerous organisations. The Service functions as a hub, facilitating cooperation in social science research.

We offer a reliable and user-friendly platform, ensuring access to trustworthy economic, population, and social research data of national strategic importance.

We also provide access to many other rich resources, including documentation, guidance, support, and training. We provide extensive support and foster a culture of data literacy for multiple audiences, including data owners, researchers, and other data users. Researchers, educators, and students benefit from the Service through access to a diverse array of curated datasets, enhancing capacity for data-enabled insights.

Evidence-led insights benefit a range of other stakeholders:

- Central and local governments use data held by the Service for policy planning, program evaluation, and resource allocation.
- Research funders, including the ESRC and other UKRI-funded investments, use data held by the Service to identify priority areas and make decisions aligned with societal needs.
- Policymakers use data held by the Service to inform decision-making, ensuring that policies are grounded in the latest social, economic, and population research.

- Think tanks use data held by the Service to conduct rigorous analyses, contributing to informed discussions and policy debates.
- Charities and other civil society actors
 use data held by the Service to support their
 advocacy efforts, aligning their initiatives
 with evidence-based insights.
- Media outlets use data held by the Service to enrich their reporting with accurate and up-to-date information on evolving socioeconomic conditions.

Through these stakeholders and the data and services we provide, society gains access to transparent and trustworthy information, knowledge, and understanding of social processes and social outcomes, enabling all to work towards creating a better world.





Our environment

Technological advances

Rapid advancements in technology, including artificial intelligence, present opportunities and challenges. Staying current with technological progress is essential for the Service to maintain an efficient and user-focused platform as we continuously improve both data and infrastructure.

Data privacy and security

It is paramount to ensure the protection of safeguarded and controlled data whilst improving user experience and maintaining the trust of data providers. The Service must continuously shape as well as adapt to evolving regulations, establishing best practices, and addressing concerns about data privacy and security.

Legal and ethical best practice

The Service adheres to the highest legal and ethical standards, especially when dealing with personally identifiable or confidential data. We develop and set best practice and act as the main source of guidance enabling users and data depositors to comply with ethical guidelines.

Data integration and interoperability

The Service integrates diverse datasets and fosters interoperability across different data sources. We continually address issues related to standardisation, metadata consistency, and data linkage.

User education and outreach

Social scientists at any level of experience benefit from support with data and metadata resources, policies, and best practices. We provide foundational training programmes to help Service users make the most of the data, including highlighting the potential for impact.

Collaboration and partnerships

Collaboration with data producers, data services, researchers, and other stakeholders helps enrich the Service's offerings. We build on partnerships and joint initiatives to enhance the diversity, relevance, and quality of available datasets and training.

Data enabled infrastructure



Pioneer innovative infrastructure for data-enabled social science research.

The Service enables and facilitates the delivery of research by providing economic, population, and social research data and infrastructure that leverages the latest technological developments.

By proactively innovating, the Service responds to changes in the data and research landscapes and remains a cornerstone for social scientists and other research data infrastructures.



We will **revise and update services** through technological transformation of the digital infrastructure and ongoing development of our workforce.



We will leverage technology and engage with data producers and data users to ensure the **maximum possible accessibility and interoperability** of our data holdings in accordance with Findable, Accessible, Interoperable, and Reusable (FAIR) principles.



We will **proactively participate in and lead sector-wide discussions on the future of data** for social science research, promoting innovation in ethical and responsible data use and reuse.

Data quality and trust



Provide access to high-quality and trustworthy data for social science research.

The Service provides trusted and safe access to a vast range of economic, population, and social research data of national strategic importance.

Because the user is at the heart of everything we do, we benefit researchers, policymakers, civil society, and industry actors in need of data, but also teachers, educators and students using data as part of training and development.



We will improve the efficiency of our data delivery channels to give users **quicker access to the data** they need.



We will improve and **extend the mechanisms** to discover, access, and analyse our data.



We will **continually collect and review feedback** to inform improvements to all our services as well as ensuring the highest levels of user trust and satisfaction with our resources.

Data curation and active preservation



Curate and actively preserve research data for long-term access, use, and reuse.

To enable future use/reuse and foster interoperability among data infrastructures, the Service actively curates, manages and preserves the data it holds to ensure it is Findable, Accessible, Interoperable, and Reusable (FAIR) and makes sure that as many deposits as possible are maintained in open, standards-based formats.



We will work with data producers to ensure that **even more data across the UK Data Service** are richly documented, managed, curated, licensed, and actively preserved.



We will **establish transparent levels of preservation** for data collections and enrich and future-proof data and metadata, with a focus on linked open data.



We will pursue **higher levels of machine actionability** for the data, metadata and other resources managed by the Service e.g. licences and documentation, prioritising interoperability with external actors and supporting the next generation of Al tooling.

Data literacy and capacity



Foster data literacy and capacity for research data sharing, use, and reuse.

Through live and on-demand training and support services, the Service helps data creators and data users to ethically and legally manage and share their data.

We assist users to find, access, evaluate, and use a broad range of datasets, increasing capacity for high quality and impactful data analysis.



We will position the UK Data Service among the **foremost destinations for high-quality foundational training and support** for social scientists in academia and beyond, for working with social, economic and population data, responding to and anticipating user needs.



We will build and **proactively maintain collaborations across the social sciences** to remain at the forefront of a rapidly changing skills landscape.



We will develop our training and support services to make the **best use of developing technologies and emerging forms of data**.

Advocacy and outreach



Evidence and promote the impact of economic, population, and social research data.

The Service champions the value of data-enabled social science research and fosters awareness and engagement across academic and non-academic communities across the globe.

By highlighting the impact of research data on policy, practice, and society, the Service increases the reach and use/reuse of economic, population and social research data.



We will **identify and leverage opportunities** to promote the Service to key stakeholders in the social sciences, including academic and non-academic actors, nationally and globally.



We will **extend our data impact communication**, presenting our work through different media and to more diverse audiences.



We will actively **promote a culture of data awareness**, advocating for increased accessibility and transparency of research data and contributing to the global open data movement.



Final remarks

As we navigate the shifting landscape of technology, data privacy, legal and ethical compliance, interoperability, and data skills, the Service is poised to meet any challenges head-on. Our approach to continuous innovation and partnerships will ensure that our users, collaborators, and external audiences make the best of the resources and services we provide.

Our strategy is underpinned by a set of operational activities and objectives mapping to the **five pillars**. Working together to deliver these, we ensure that the Service continues to stand as a leading voice in the landscape of economic, population, and social research data.

As the Service embarks on its 2024–2030 strategy, we aim to go beyond being a provider of access to data, and to be seen as a **beacon for the social science research community**.

We believe that the Service can, does, and should act as a partner in research that contributes to the **creation of knowledge** and the pursuit of a more equitable world.

Our vision for economic, population, and social research data that drives an **innovative and thriving** research and policy-making ecosystem, encapsulates these ambitions.





Acknowledgements

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Pillar	Strategic objective	
Data enabled infrastructure Pioneer innovative infrastructure for data-enabled social science research.	We will revise and update services through technological transformation of the digital infrastructure and ongoing development of our workforce.	
	We will leverage technology and engage with data producers and data users to ensure the maximum possible accessibility and interoperability of our data holdings in accordance with FAIR principles.	
	We will proactively participate in and lead sector-wide discussions on the future of data for social science research, promoting innovation in ethical and responsible data use and reuse.	
Provide access to high-quality and trustworthy data for social science research.	We will improve the efficiency of our data delivery channels to give users quicker access to the data they need.	
	We will improve and extend the mechanisms to discover, access, and analyse our data.	
	We will continually collect and review feedback to inform improvements to all our services as well as ensuring the highest levels of user trust and satisfaction with our resources.	
Data curation and active preservation Curate and actively preserve research data for long-term access, use, and reuse.	We will work with data producers to ensure that even more data across the UK Data Service are richly documented, managed, curated, licensed, and actively preserved.	
	We will establish transparent levels of preservation for data collections and enrich and future-proof data and metadata, with a focus on linked open data.	
	We will pursue higher levels of machine actionability for the data, metadata and other resources managed by the Service e.g. licences and documentation, prioritising interoperability with external actors and supporting the next generation of Al tooling.	
Data literacy and capacity Foster data literacy and capacity for research data sharing, use, and reuse.	We will position the UK Data Service among the foremost destinations for high-quality foundational training and support for social scientists in academia and beyond to work with social, economic and population data, responding to and anticipating user needs.	
	We will build and proactively maintain collaborations across the social sciences to remain at the forefront of a rapidly changing skills landscape.	
	We will develop our training and support services to make the best use of developing technologies and emerging forms of data.	
Advocacy and outreach Evidence and promote the impact of economic, population, and social research data.	We will identify and leverage opportunities to promote the Service to key stakeholders in the social sciences, including academic and non-academic actors, nationally and globally.	
	We will extend our data impact communication, presenting our work through different media and to more diverse audiences.	
	We will actively promote a culture of data awareness, advocating for increased accessibility and transparency of research data and contributing to the global open data movement.	