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Foreword

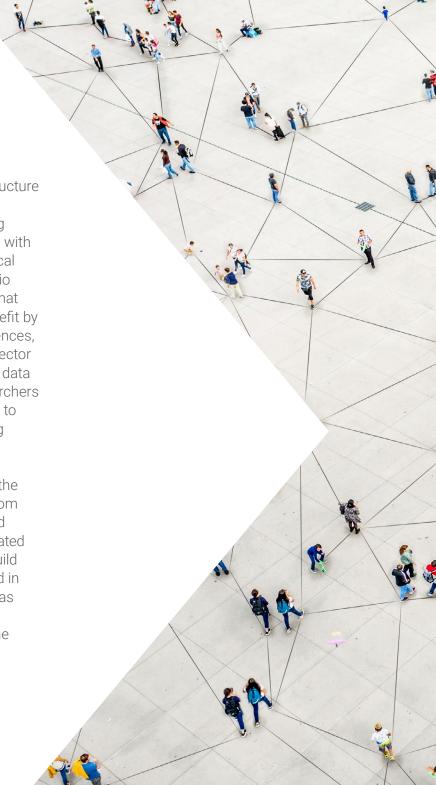
by Professor Alison Park, ESRC Interim Executive Chair

In an increasingly complex and uncertain world, the need for good quality data has never been more pressing.

Data can help us understand and respond to threats and challenges across the social, economic and political spectrum: from climate change and the impact of the pandemic to understanding and responding to local and regional inequality. The growth of new forms of data, and the new methods and tools by which it can be analysed, creates huge opportunities too. Data has an unparalleled power to drive the timely creation of robust evidence, inform policy and practice and enable positive societal change. Use of data and new technologies can improve lives by enhancing delivery of services, identifying opportunities, and driving innovation.

The UK's world-leading social science infrastructure has benefited from long-standing investment by ESRC, who have played a key role in helping create, extend and sustain data infrastructure, with a clear commitment to treating data as a critical shared research resource. The ESRC's portfolio includes data collections as well as services that provide access to data, all used for public benefit by researchers in social and interdisciplinary sciences, by governments at all levels and by the third sector and businesses. This long-term investment in data services and datasets, and in equipping researchers with the skills, tools and techniques they need to use them, has helped to power an outstanding social science research base within the UK.

This success has been fuelled by harnessing the power of a growing array of data sources – from long running series of longitudinal surveys and qualitative studies to more recent digitally created resources. This has enabled researchers to build rich and detailed evolving pictures of the world in which we all live, learn and work. In turn this has helped create real world impact that improves the lives of individuals, families, society and the economy both within and beyond the UK.



We are justly proud of our achievements, and those of the social science research community. We remain committed to sustaining a world-leading data infrastructure. We will continue to invest in vital national data collections, such as our longitudinal studies. However, we know that we must also innovate if we are to ensure that we have modern. cutting-edge data facilities and the very best data resources available to meet current and future researcher needs. We will continue working to unlock the vast untapped potential of administrative data and wider public data assets and will harness the power of the many and varied forms of new and emerging digital data. Capturing, curating, combining and delivering these data in a safe, secure and ethical way, while expanding our existing national data resources and data facilities, has the power to be transformative, providing insight and evidence on a breadth and scale never previously deemed possible. Ensuring this is done in ways that sustain trustworthiness remains fundamental.

The ESRC Data Infrastructure Strategy sets out how we will start to deliver that promise. It is a framework which captures, systematically for the first time, how we will invest in data infrastructure and associated capacity building, enabling us to make the best use of our resources, maximise the value of our investments and build flexibility into our data infrastructure portfolio. It will promote a joined-up landscape that is easily navigated by researchers and enables appropriate access to, and facilitates the use of, diverse data resources

at a time of growing interest and demand from researchers, the public and others. This Strategy forms a key part of ESRC's broader 2022-25 Delivery Plan to be published later in 2022, which sets out our ambition for research that contributes to a more prosperous, healthy, sustainable and secure society. The Strategy also draws on priorities, approaches and information set out in the UKRI Strategy, National Data Strategy, and National Al Strategy.

We are extremely grateful for the support we have received from our stakeholders in helping shape the development of this Strategy.



Nhim Park

Executive Summary

Our vision

ESRC is the single largest public funder of social and economic research data in the UK. We have invested over £200m in data collection, creation, curation and delivery over the past five years and we intend to sustain this support.

Our new Data Infrastructure Strategy has been developed following open consultation with a range of stakeholders with an interest in research data and the public benefit it can deliver. The Strategy provides a framework for ESRC to make transparent, systematic and strategically driven investment decisions to develop our national data infrastructure and deliver our vision:

ESRC ensures high quality data can be used to address challenges to maximise public benefit and advance the UK's reputation as a world leader in social science

Our role

ESRC has a unique role to play in ensuring that researchers have simple and seamless access to the best and most comprehensive social science data resources and are equipped with the leading-edge skills and methods to optimise their use.

Our approach

We work within a constantly changing landscape and need to adapt dynamically to new threats and opportunities, while sustaining trustworthiness. Our Strategy is therefore intended to be a living document that allows us to both drive and respond to evolving developments in the wider data landscape. We will work collaboratively with our investments and a range of partners and communities to ensure our approach is informed by a broad set of needs and priorities.

Assessing new priorities

To ensure that the UK continues to have a world leading social science data infrastructure we will continue to seek out new opportunities to innovate. We will develop a robust and systematic needs assessment framework to help us understand where and how best to invest in new pioneering opportunities which will genuinely catalyse and transform our data infrastructure and modernise and integrate our data services.

Goals, objectives and delivery - the five pillars

Our Strategy is built around five broad goals: These goals are underpinned by a series of related objectives and a delivery plan to drive their implementation in the near term, up to 2024, and beyond that to 2027. The ambitious range of activities in the delivery plan will introduce new ways of working across multiple areas of our work, supported by frameworks to help embed, monitor and evaluate their implementation and delivery.

| AREAS OF FOCUS | Building and sustaining a foundation |
|----------------------|--|
| GOALS | ESRC's portfolio of data investments is a foundational pillar for UK social science's role in research and |

policy-making



ESRC and investments work collaboratively and lead on making connections between people, organisations and infrastructures



ESRC and investments take decisions that support innovation and changing research and policy needs



ESRC and investments facilitate public and community engagement to ensure its investments deliver benefits for all UK communities



ESRC and investments enable skilled researchers to effectively utilise data in their research for public benefit

Our Vision

For more than fifty years the ESRC has been investing in data services which make existing and new data available for research and in the collection of new data. We are the single largest public funder of social and economic research data in the UK. Over the last five years we have invested over £200m in data collection, creation, curation and delivery. We intend to continue and build upon this role. Our vision which covers all types of data, is that

ESRC ensures high quality data can be used to address challenges to maximise public benefit and advance the UK's reputation as a world leader in social science.



Our Role

The data research landscape is complex, crowded and can be difficult to navigate.

We believe ESRC has a unique role to play in ensuring that researchers have simple and seamless access to the best and most comprehensive social science data resources and are equipped with the leading-edge skills and methods to optimise their use.

To achieve this we aim to:

- Provide a backbone for research continue investing in critical underpinning infrastructure which operates across the UK's constituent nations for wide use, with broad public benefits.
- Provide leadership monitoring and shaping the social science and broader data infrastructure landscape, making connections, coordinating stakeholders to pool resources, driving efficiency through synergies, ensuring infrastructure can support evolving public policy needs and priorities.
- **Foster innovation** supporting exploration of and investment in emerging, innovative technologies and methodologies that are promising, but unproven.
- **Drive impact** ensuring that investments and ESRC leadership activities maximise and clearly articulate the impact they generate and how this represents value for money and benefits the UK.
- Develop research skills strengthening training, improving career paths and creating a more inclusive, diverse, flexible research environment.



Maintaining access to high quality data resources

The UK Data Service (UKDS) plays a pivotal role in making available high quality social and economic data resources. Free at the point of use, it provides a centralised archive and unified point of access to over 6,000 social and economic datasets, including UK census data, government funded surveys, longitudinal studies, international macrodata, qualitative data and business microdata. It is designed to provide seamless access and support to meet the current and future research demands of academics, policy makers and practitioners, and to help them maximise the impact of their work. The service currently has over 47,000 registered users.

UKDS is highly effective in addressing challenges in data discovery and access for researchers and other data users, saving time and resources, and enabling a wider range of research questions to be addressed. It provides efficient and cost-effective curation and provision of data for social science research ensuring delivery of public benefit from investment in data resources.

Our Approach

In developing our Data Infrastructure Strategy, we have drawn on inputs from a wide variety of stakeholders. This includes an open consultation exercise as well as evidence from previous reviews and analysis of the data landscape and our own portfolio.

This has helped to refine the goals and objectives of our Strategy against a dynamic backdrop. Technological and methodological advances, new legal frameworks, ethical considerations sustaining trustworthiness, and growth in the amounts and types of data being generated create a constantly changing kaleidoscope of threats and opportunities. This means that there are always multiple demands upon ESRC's budget and tensions around how we make transparent, systematic and strategically driven investment decisions to optimise the development of our national data infrastructure.

We recognise that ESRC cannot deliver the vision alone. Collaboration between a range of organisations and communities will be essential to help us shape our investment in social science data infrastructure for the years ahead.

We will regularly review our approach to the investment decisions we make and retain agility and flexibility to respond to the fluid environment in which we are seeking to deliver our vision. Our current Strategy is therefore a living document which will both seek to drive as well as respond to the broader evolving data landscape.



Our goals and objectives

To ensure that we can fulfil our role, our Strategy has set five initial goals and a series of broad objectives, which are:

| VISION | ESRC ensures high quality data can be used to address challenges to maximise public benefit and advance the UK's reputation as a world leader in social science | | | | |
|-------------------|--|---|--|--|--|
| AREAS OF FOCUS | Building and sustaining a foundation | Leadership and connectedness | Engagement and Responsiveness | Impact and public benefit | Skills and capacity for data use |
| GOALS | ESRC's portfolio of data investments is a foundational pillar for UK social science's role in research and policy- making | ESRC and investments work collaboratively and lead on making connections between people, organisations and infrastructures | ESRC and investments take decisions that support innovation and changing research and policy needs | ESRC and its investments facilitate public and community engagement to ensure delivery of benefits for all UK communities | ESRC and investments enable skilled researchers to effectively utilise data in their research for public benefit |
| OBJECTIVES | To create evidence to inform investment in and lay foundations for a sustainable mainstream research resource, complementing other UKRI infrastructures To ensure research users across all sectors and localities can discover and access data and data-driven research in order to deliver societal benefits To build on the UK's position as a highly collaborative player that makes a significant contribution to national and international challenges | To demonstrate, empower, develop, and facilitate collaborative leadership in the research data landscape To support and facilitate effective integration and working together to strengthen linkages with other disciplines To strengthen the talent pipeline of researchers with the skills to lead infrastructure investments of increasing complexity To promote ease of access to and coherence across data infrastructure | To invest proactively, transparently, and agilely to support innovation and capacity building of both people and infrastructure potential To ensure a holistic, comprehensive, ambitious, and sustainable approach over the longer term with due focus on funding considerations To engage and secure recognition from data owners, policy-makers, other users, and the general public that ethical data-enabled research has delivered social and economic benefits | To develop greater understanding of different outcomes for individuals and groups, through data and data-enabled research that delivers social and economic benefits To ensure the performance and impact of both individual investments and the whole portfolio form part of a comprehensive reporting, monitoring and evaluation strategy | To deliver appropriate capacity building and methodological development interventions that enable the use of high-quality data to advance UK social science and deliver public benefit; and respond to current and emerging needs To deliver a portfolio of training resources that is easy for users to find and navigate To ensure support is differentiated according to needs across the life course |



These goals and objectives will enable us to:

- Prioritise and balance needs between sustaining current investments, pursuing new opportunities and supporting innovation, guided by our strategic objectives
- Connect our data infrastructure to wider strategic activities, identifying opportunities for collaboration, integration and innovation to deliver the goals of this Strategy
- Develop the capabilities of users and methodologies to utilise resources effectively and ethically, and foster leadership capacity
- Establish guiding principles for decision making and a pipeline of ideas, so we can pursue, respond to, and access new funding opportunities
- Encourage collaboration and contributions from the research community and government
- Make decisions around adapting or stopping funding elements of data infrastructure investments in a fair and transparent way, if further investment would not provide value for the public compared to other opportunities
- Help define a clear impact strategy supported by effective communications and engagement.

Building and sustaining a foundation: Understanding Society

Understanding Society is the UK Household Longitudinal Study (UKHLS). Each year since 2009 it has surveyed everyone aged 16 or over in participating households, currently around 35,000 people – representative of the UK population. By repeatedly surveying the same people on topics touching every aspect of our lives, UKHLS has created a world leading resource tracking how life in the UK changes over time. Since it began it has supported research and policy analysis across a huge array of topic areas. UKHLS data has been downloaded from the UK Data Service by users over 50,000 times and the volume of use is accelerating as it provides an ever-richer picture about people's lives.

UKHLS provides an immediate source of data about key contemporary issues, often obviating the need for bespoke data collection. During the Covid-19 pandemic it was able to expose the highly uneven vaccine uptake among different ethnic groups across the UK population. This evidence was used by the SAGE committee to support its strategies to reduce vaccine hesitancy. The data was fundamental to critical government policy interventions that supported millions of individuals and families during the pandemic.

HM Treasury analysts used data from the study to estimate changes in working household income and calculate the probability of individuals of different earnings levels losing their job, being furloughed or seeing an earnings/ profit drop. This evidence underpinned government interventions such as the Coronavirus Job Retention Scheme, the Employment Income Support Scheme and COVID-19 additional welfare payments which supported the poorest working households in the UK.

Driving Innovation: the transformative impact of linked administrative data

A key opportunity for creating better policies is linking government data. Our flagship partnership with ONS and the devolved administrations through ADR UK (Administrative Data Research UK) is revolutionising the way policymakers and researchers access the UK's wealth of public sector data to give decision makers the answers they need to solve important policy questions. By linking data held by different parts of government and facilitating safe and secure access for accredited researchers to these newly joined-up and de-identified data sets, ADR UK has created a new way of gathering insights to key issues facing us today and how our society and economy function.

Improved Justice System experiences

Data First is an ambitious, pioneering data-linking programme led by the Ministry of Justice (MoJ) and funded by ADR UK. This has already facilitated research access to linked data from across civil, criminal and family courts and Her Majesty's Prison and Probation Service, as well as linked police national computer and education outcomes data. Researchers in government, universities and other institutions can now apply to securely access anonymised extracts of these datasets, so researchers can understand how people interact with courts over time, and what characteristics influence patterns of frequent use, to build a much better understanding of what MoJ policies and services are most effective. Such understanding will enable more evidence-informed, targeted support and lead to lower cost, higher quality public services for everyone in the UK. Data access is facilitated by the controlled circumstances of the ONS Secure Research Service (SRS) and the SAIL databank; both accredited processors under the Digital Economy Act (2017), and which comply with the highest standards of data security and protection outlined by the principles of the Five Safes.



The delivery plan on the following page sets out the programme of activities we have designed to realise our goals and objectives over the next five years. These have been informed by a 'theory of change' which shows how we can envisage change happening in the near and longer term to achieve specific impacts. Further details of our theory of change can be found in Annex 1.



Delivery Plan

Near Term 2022-

2024

• Develop an improved system to collate and present ESRC's understanding of the portfolio of Data Infrastructure and the the role each investment plays.

Building and sustaining a foundation

- Early identification of funding fluctuations, and spending delays, to support repurposing and reallocation.
- Develop a framework to support implementation and delivery of the Strategy.
- Devise a comprehensive framework to quide investment decisions.
- Review and update infrastructure governance and assurance practices.
- Explore integration between investments and other ESRC portfolios to help maximise impact and reduce duplication.
- · Identify and appraise sources of available funding for data infrastructure investment.
- Publish a new funding call to address methodological needs in social surveys.
- Support additional training on data access, management and archiving.

· Spending fluctuations are used to

Leadership and connectedness

- Lead efforts to maximise and promote the importance of inclusiveness of data resources.
- Continue to explore co-funding opportunities and collaboration with other ESRC portfolios and Research Councils.
- · Identification and use of lessons learned activities from existing and new investments becomes standard practice.
- Complete an update of the resource plan to support the delivery of investments and projects.
- Identify opportunities to strengthen leadership development support for current and future investment leaders to prepare and support them in their roles.
- Embed leadership and capacity building requirements in new investments.
- · Work with investments to improve collaboration between them to support shared learning and deliver value.
- Publish an ESRC Data Policy update to support and quide grant holders.

Engagement and Responsiveness

- Refresh the Communications and Engagement Plan to improve collaboration and engagement with key stakeholder groups.
- · Establish a pipeline of ideas so we can respond to and access new funding opportunities.
- · Scale up use of case studies to increase public understanding of social science and how it can respond to societal concerns.
- Engage across ESRC, with ADR UK, to identify opportunities around emerging Delivery Plan priorities to promote data resources.
- Develop an infrastructure needs assessment approach and engage ESRC research teams and stakeholders to trial it in priority areas to inform prioritisation of investment.
- · Work with other funders and our investments to sustain public engagement and support trustworthiness in use of data for research.
- Engage in ESRC and with investments to improve approaches to policy engagement to better realise the value of data resources.
- Sustain horizon scanning to identify opportunities and challenges for data innovations.

Impact and public benefit

- Promote an impact strategy to improve how we measure and evaluate outcomes and impacts arising from ongoing investments in a more consistent way.
- Embed the Impact Strategy in the Data Infrastructure Strategy. and commissioning and monitoring processes.
- Engage with Investment Directors at regular review points on the Impact Strategy.
- Promote sharing of learning and good practice between infrastructure investments about impact identification and communication.
- Work with investments to regularly communicate a range of impacts with public benefit.

Skills and capacity for data use

- Publish findings from our study scoping the skills needs in the social sciences to undertake data driven research and identify how we will respond to the key findings.
- Implement the ADR UK Training and Capacity Building Strategy.
- · Review and update our core training requirements for doctoral students to embed data-driven research skills particularly new digital methods.
- Develop our approach for strengthening the advanced/ specialist training for ESRCfunded PhD students.
- · Continue to strengthen relationships between data infrastructure investments and the National Centre for Research Methods (NCRM).

Longer Term

2027

- 2025-
- deliver new investments that align with Data Infrastructure Strategy priorities. · Build and sustain an evidence base to
 - Develop guidance to enable sustainability and capture long term value.

quide investment decisions.

- · Maintain funding for training on data access, management and archiving.
- Develop greater understanding and ability to evidence how data enabled research can have outcomes which contribute to addressing societal challenges.
- Provide leadership and build a culture of collaborative working (nationally and internationally) to help social scientists with regard to data collection and in responding to opportunities.
- Strengthen linkages with devolved administrations and government via existing and new investments, e.g. ADR UK.
- Explore the use and benefits of synthetic data creation for research.
- Develop interventions to support the development of current and future data infrastructure investment leaders.

- · Publish an annual review to include an update on Data and Infrastructure investments and impacts.
- Develop a case for further 'development funds' from core budgets for Data and Infrastructure.
- Complete infrastructure needs assessments in priority areas.
- · Deliver communication activities to help campaign on the societal benefits of the use of government data.
- Create improved impact returns and a reporting model for demonstrating impact.
- Impact returns and reporting used to support the case for ongoing investment.
- · Improved understanding and consistency around impact expectations and reporting.
- Development of a bank of impact case studies to demonstrate Data Infrastructure impact.
- Provide our Doctoral Training Partnerships with funding to pump prime innovation in the content and delivery of data driven research training informed by the pedagogical learnings from our investment in O-Step and the Data Skills Scoping work.
- Scope ongoing needs in research methods training to inform future funding decisions.

Assessing new opportunities

To ensure that the UK continues to have a world leading social science data infrastructure we will seek out opportunities to innovate. In light of the vast and ever-expanding wealth of digital data that is now available, we will develop a robust and systematic needs assessment framework to help us in our decision making. This will provide us with a consistent framework, helping us understand where best to invest in new pioneering opportunities which will genuinely catalyse and transform our data infrastructure and modernise and integrate our data services. It will guide adoption of a structured approach to piloting and assessing the potential for major new infrastructural investment and how that can best be funded. FSRC will use this framework across all. areas so that familiar and existing investments are not advantaged or disadvantaged when compared with unfamiliar and new opportunities.

The following are three major areas of future activity.

Harnessing the power of digital footprint data

People's interactions with the world and each other are increasingly digital. These interactions create a vast array of digital footprint data (DFD) including internet and social media, geo-spatial, commercial and transactional, sensor and image data. DFD are diverse, powerful, large-scale and complex. Successfully obtaining and leveraging DFD is the vanguard of 21st century social science and its intersections with other research and industry domains.

ESRC's DigitalFootprints Programme will provide the leadership, skills, coordination and data infrastructure required to deliver a transformational shift in the creation, access and use of DFD, harnessing their immense potential to address pressing research and policy questions. This is a highly complex area, with numerous different data controllers, and in which privacy and security concerns are paramount. Phase one of the Programme, due to launch in 2022, has been informed by initial consultation with the community and builds on existing investments. Phase two will deliver a significant step change of capability and is scheduled to launch in 2024.



Scoping future data services needs and opportunities

ESRC is embarking on an exciting review programme called Future Data Services (FDS), aligned to this Strategy. This will develop ESRC's vision for data services infrastructure beyond the current investments, ensuring that our existing and new communities continue to be served effectively.

Every year, tens of thousands of researchers use ESRC-funded data services to access data for research. learning and teaching purposes, and to share their data and findings with the wider research community and policymakers. The data landscape has inevitably evolved over the past decade since the current investments were established in 2012. New legal frameworks for accessing data have been implemented; new methods for accessing and combining data have emerged and are practised; advances in technology continue to develop. The data landscape has become more crowded and complex, with a number of initiatives providing services to data owners and researchers established to serve a variety of needs. FDS will enable ESRC to consider what data service investments to fund in the future, and how these should work to serve research.

In FDS, ESRC will gather usercentred evidence to explore and assess the future needs of its diverse communities, recognising that research is more cross-disciplinary and cross-sectoral than ever before. ESRC has an opportunity to ensure future data services infrastructure investments are aligned to the needs of the research community and data owners, and operate to the principles set out in this Strategy. ESRC envisages a landscape in which data services are built on sustainable. foundations: led with vision to empower the communities they serve; are responsive, agile, flexible and innovative; and engage with impact for the public good.







Creating infrastructure for innovative interdisciplinary research

Population Research UK (PRUK) is the working name for a new resource being developed jointly by ESRC and MRC to maximise the use, innovation and benefit from the UK's rich collection of longitudinal population studies (LPS) across social, economic and biomedical science.

The goal of PRUK is to enable a greater understanding of the complex interplay between the biological, behavioural, social, economic and environmental determinants that influence health, social and economic well-being, in order to guide intervention and policy development.

When established, PRUK will bring together and develop the infrastructure, processes and people that enable LPS data to be efficiently enhanced, accessed and used for research. It will promote collaboration, alignment and interoperability across LPS and disciplinary domains as well as enable

innovation by allowing researchers to address high-impact research questions that single studies alone cannot address. The scope of PRUK will include all significant UK LPS, encompassing cohorts, panel studies and biobanks. PRUK will build on resources funded by ESRC and MRC.

PRUK will have strong governance with data security as a central consideration. The funders recognise the importance of public voices in complex data sharing issues and aim to sustain trustworthiness in the use of biomedical, health and socioeconomic LPS data for research. All data donated by LPS participants is anonymized and held in a secure environment and will be shared only with bona fide users who demonstrate a justifiable reason for access.

Evaluating progress

It will be essential regularly to evaluate progress on our Strategy. We will use the goals and objectives within each pillar to support the monitoring and evaluation of the implementation of the Strategy and its overall effectiveness.



Annex 1 - Theory of change

EVIDENCE OF NEED VISION **INPUTS/ACTIVITIES OUTPUTS** The UK and its inhabitants are facing ESRC ensures unprecedented global change, challenges and high quality data Accessible, high Training courses and opportunities. Current and future generations can be used to capacity building quality datasets are likely to experience an environment very address different from the recent past, reflecting the challenges to impact of events and changes including: the maximise public **Direct funding** 2007-8 financial crisis and subsequent Diverse, interdisciplinary benefit and For data & Data architecture austerity, the current cost of living crisis, advance the UK's teams infrastructure changing international relationships and reputation as a investments to insecurity, increasingly complex family world leader in Data perform appropriate structures and dynamics, the digital revolution, social science Infrastructure activities. Technological and Productive relationships / climate change and environmental connections analytical advances Strategy and degradation, physical and mental health challenges, and the COVID 19 pandemic. related Non-financial activities Huge on-going technological changes ESRC leadership Engagement activities impact the data research landscape, High-quality, relevant, and advocacy including on the types, quantity and accessible scientific activities granularity of data, and the ways it is papers and other Promoting the collected, stored, shared and analysed. research outputs opportunities and benefit There is a pressing need for social science of the use of data data infrastructure investments that are fit for purpose, agile and take advantage of innovative forms of data, technology and Social or economic Relationships and methods. Such investments will enable insights collaborations built high-quality, ethical, high impact research to inform UK responses that maximise public benefits. **IMPACTS** LONG-TERM OUTCOMES **NEAR-TERM OUTCOMES** The delivery of public services is improved through better policies. Wider, more effective use and Data use increases Greater number which are informed by the effective Capacity building continuous improvement of our and improves and range of application of highly valued ESRC is enhanced investments skilled people data investments and infrastructures by skilled researchers. These improvements, underpinned by Improved quantity and Data are more inclusive, FAIR, trustworthiness, deliver enhanced quality of data More Improved, embedded sustainable, complete and trusted societal and economic outcomes. interdisciplinary and engagement and improved response to major communication with internal collaborative challenges, and enable the Refined methodology/metrics investments and external stakeholders advancement of science through More responsive, groundto understand types and innovation and from taking advantage breaking research pathways to impacts of the opportunities that data offers. A culture is established Embracing the value of data and Strong leadership with a coordinated effective data use enhances the UK's Improved evidencing and and collaborations Increased academic vision that views data reputation as a front runner in communication around policy, are in place impact, knowledge and as a priority innovation, which encourages economic and societal impact understanding collaboration and the international flow of data Building and sustaining a foundation Impact and public benefit **Engagement and Responsiveness** Leadership and connectedness Skills and capacity for data use

To support achieving the vision, ESRC has devised a 'theory of change' which shows how we envisage change can happen in the near and longer term to achieve identified impacts. In developing this, we drew on learning from current and previous investments, previous monitoring and evaluation activities, and views from stakeholders and partner organisations.

The theory of change method identifies a logical and chronological flow, defines the areas our work contributes to, indicates how each section is connected, and enables key delivery partners to identify their role in the process. This method identifies an initial **evidence of need** so that the approach is established with a clear understanding of the issues or opportunities we want to address.

The overall desired **impacts** describe the broad or long-term change we want to realise.

The theory of change includes a collection of **inputs/activities**, which when implemented will contribute to the delivery of **near and long-term outcomes** along the path to achieving the intended/observed **impacts**.

The colour coding illustrates specific pathways of change that will interact to deliver the identified impacts. The links between the desired outcomes are explained by statements of why one outcome is identified as a prerequisite for another. The colours cover the strategy's areas of focus, the five pillars, which collectively will support delivery of the vision.

The theory of change will be a living document which will be revisited periodically by the ESRC (with support from the research community) as new evidence emerges or new ways of working develop. A related framework will help provide evidence on whether the theory of change is working and will suggest where modifications may be required.

Annex 2 - Current ESRC managed investments in data infrastructure

At the date of publication, summer 2022, the following data infrastructure investments are funded (or co-funded) by ESRC. This includes investments that collect new data for research purposes, and services that make available existing and new data and facilitate use of

data through activities including curation, user support and training. Many investments involve elements of both collections and services. In addition there are many active ESRC research grants, not listed here, that generate research data which is deposited for re-use.





| Data Collections | Data Services |
|--|---|
| Centre for Longitudinal Studies (CLS) cohorts • 1958 National Child Development Study • 1970 British Cohort Study • COVID Social Mobility and Opportunities Study (COSMO) • Early Life Cohort Feasibility Study • Millennium Cohort Study • Next Steps | Data acquisition, access & support services Administrative Data Research UK (ADR UK) Consortium of European Social Science Data Archives (CESSDA)* Health Data Research UK (HDR UK)* UK Data Service |
| Other longitudinal studies Generations and Gender Understanding Society – the UK Household Longitudinal Study | DigitalFootprints Phase One Consumer Data Research Centre Urban Big Data Centre |
| Election studies • British Election Study • Northern Ireland Election Study • Scottish Election Study • Welsh Election Study | Researcher tools • HateLab • Social Data Science Lab • Software Sustainability Institute* |
| Other surveys • European Social Survey • International Social Survey Programme • National Survey of Sexual Attitudes and Lifestyles* | Census & Longitudinal Study Support Services Centre for Longitudinal Study Information and User Support (CELSIUS) Northern Ireland Longitudinal Study Research Support Unit Scottish Longitudinal Study Development and Support Unit Cohort and Longitudinal Studies Enhancement Resource (CLOSER) Integrated Census Microdata Longitudinal Linkage Collaboration Administrative Data Feasibility Study |

^{*} Indicates investments of which ESRC is not the lead funder

