Research Strategy (2025-2030)

"I do think sharing data or being able to link data together has the potential to provide evidence to improve the lives of all our fellow citizens in a way that almost nothing else does, and that requires easy, ethical, privacy-enhanced data sharing." Sir Ian Diamond, UK National Statistician (at the UK Covid inquiry, October 2023).

Our Context

Research Data Scotland is a charity, established to ensure research in Scotland provides timely public policy insights that can improve lives. Research Data Scotland does not collect new data. We maximise the research value of existing public sector data by coordinating its lawful and secure transformation into a format which can be used in scientific research, and partner with universities to secure the grant funding necessary for this work.

Our core purpose is to enable research access to public sector data quickly and efficiently so that Scotland has the most comprehensive and timely research evidence base for policy. We make it possible for researchers to securely use sensitive public sector data by standardising the processing of data for research and by providing a single digital application and approvals portal.

We are building a sustainable research system in Scotland that will ensure data can be reused and updated to enable replicable and reproducible science. Replicable and reproducible science is crucial for evidencing the quality, integrity, and sustainability of the UK's research and innovation infrastructure.

Our Vision

Our vision is to promote and advance health and social wellbeing by enabling secure and lawful research access to sensitive public sector data about people, places and businesses in Scotland. Our vision is underpinned by 4 strategic pillars:

- 1. Aligning approaches, building and demonstrating trustworthiness
- 2. Shaping and delivering researcher services
- 3. Unlocking Scotland's data
- 4. A sustainable system

Our research strategy contributes to the delivery of strategic pillar 3 and 4. Our research strategy is critical to the growth and sustainability of our Researcher Access Service, launched in April 2024, which provides a single digital application and approvals platform for data-driven scientific research.

Research is fundamental to what we do and is reflected in the multidisciplinary capabilities of the RDS team. Our involvement spans the initial work of making public sector datasets research ready, delivering research projects which bring out the insights this data contains, and disseminating the research produced, with both the wider research community and with government and public sector bodies, to ensure these insights improve policy and practice.



Our Values

Our five values steer our decision making across the organisation and will guide the implementation of all our research related activities.

- We act with integrity: we keep front and centre of our work the public value of the decisions we are supporting through data and intelligence acting in honourable ways in our decisions at all times.
- We are transparent: we will proactively share information, insights and innovations so that we learn faster together and build trust in what we do.
- We act with courage: we believe that we can make things better, will be
 prepared to try new things, embrace ambiguity and challenge the status quo to
 create a new and thriving service that benefits the public, public bodies, the 3rd
 sector, scientific discovery and industry.
- We are collaborative: we deliver better results when we work in a truly interdisciplinary and "once for Scotland" way, and are transparent and respectful of how we keep the public informed about use of their data
- We act with humility: we have a lot to learn from others; and aim to be openminded about the gaps in our knowledge, led by listening to the users of our services, our partners, and the public.

Founded on Collaboration

We are a collaborative organisation by design, established by the Scottish Government, leading universities in Scotland, Public Health Scotland (PHS), and National Records of Scotland (NRS). We are all key partners for attracting and diversifying data infrastructure investments to Scotland. In addition to our founding partners, we have active collaborations with ADR UK, HDR UK, ONS and SAIL.

Our Research Data Scotland teams have extensive scientific knowledge and data analytical skills, built from academic and industry research experience. Many of our team members are educated to PhD level and have grant funding experience from the academic and third sector.

We pay attention to having an inclusive, supportive and ethical research environment within our organisation and proactively seek opportunities to promote and grow this culture elsewhere. Our co-facilitated "Scotland Talks Data" public panel, with the Scottish Centre for Administrative Data Research (SCADR), provides us with a unique platform to grow public support for and knowledge of public sector data for research. It also speaks to the social sustainability of data research, by helping us maintain and develop the social license underpinning public sector data research. Alongside public engagement, we continue to engage with and grow our researcher base through targeted monthly newsletters, presence at relevant conferences, and invited presentations. All the data we provide for researchers is collaboratively processed. This is because processing sensitive data for research in Scotland has been designed with the separation of function principle between trusted third party organisations (National Records of Scotland and Public Health Scotland).

We actively seek cutting edge collaborative opportunities with researchers and public sector organisations: researchers who have the skillset and expertise to analyse data; public sector organisations who are seeking to untap the value of their operational data



for public good. We work with leading research centres and teams, such as SCADR, National Centre for Social Research (NatCen), a range of universities and other organisations across the UK, and have successfully been working on a range of UKRI and other funded projects and programmes over the last three years.

We are co-designing and delivering Scotland's state-of-the art data processes, and digital platforms that are needed to grow an innovative data driven research sector.

As an Independent Research Organisation, we will be able to collaborate with a wider range of researchers and public sector organisations; and progress further with key research and policy priorities in data services. Growing our collaborations is necessary for identifying and processing the wide range of data needed to generate new and contemporary knowledge to improve health and wellbeing in Scotland. Growing collaborations is key for creating the sustainable infrastructure that a modern data driven research sector in Scotland needs.

RDS has developed its capabilities over the last three years. RDS has worked to connect researchers to public sector data making it faster, simpler and cheaper to generate new insights to help others improve society. RDS has also gained insights and understanding, which contribute to the research sector.

Policy and Funder Alignment

The need for linked public sector data is growing. This is evidenced by the national level landscape including the Goldacre Review¹, Scottish Committee on Pandemic Preparedness (SCoPP) final report², Sudlow Review³, Labour Life Sciences Report⁴ and plans for a National Data Library. There has been investment and development of NHS England's SDE network and Scottish Government's Health and Social Care Data Strategy, of which Research Data Scotland has played an instrumental role in delivering. We have a stated role in delivering Sudlow Review, SCoPP report, and the Scottish Government's Health and Social Care Strategy.

The research activities at Research Data Scotland align with the ESRC Delivery Plan 2022-2025, and ESRC data-driven social sciences and better policies across the UK. such as ADR and Smart Data Research and Future Data Services. There is also alignment with the MRC strategy priorities to enhance and broaden partnerships with industry.

ADR UK's vision for 2026 is to be the default choice to host linked administrative data from across the entirety of UK and devolved government, making it accessible to trained researchers to generate insights to inform policy and practice. RDS is working with other ADR Scotland delivery partners to realise this. ADR UK's four priority areas highlight these synergies: trust and sustainability; research for public good; research access and support; available data for research.

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¹ Goldacre Review, UK Government, 2022 <u>Goldacre recommendations to improve care through</u> <u>use of data - GOV.UK</u>

² SCoPP final report, 2024 <u>Pandemic Ready: Safeguarding Our Future Through Preparedness</u> - gov.scot

³ The Sudlow Review. 2024 The Sudlow Review - HDR UK

⁴ A Prescription for Growth, Labour Party, 2024 <u>LS Sector Plan for Design to Print</u>
Research
Data

The mission of HDR UK is to unite the UK's health and care data to enable discoveries that improve people's lives. We do this by uniting, improving and using health and care data as one national institute.

Our Research Strategy

This research strategy covers 2025-2030. Over this period, RDS will be able to scale its operations to a level of relative stability in the number of datasets it curates whilst continuing to expand the number and complexity of uses made of those datasets. We will also develop and share learnings from a user-led approach to service development.

All the research activities we deliver relate to improving data driven research that is undertaken within Scotland's Five Safe Havens (one National and four Regional safe havens). The research delivered in Scotland's Safe Havens is always carried out by accredited researchers and approved institutions. We are aligning data access and Information Governance across the Scotlish Safe Havens to simplify the experience for researchers and maximise value and return on investment for funders.

The data that we process and provide for applied research is focused on sensitive case level data about People, Places, and Businesses in Scotland. We are building a portfolio of research ready data assets that are held securely with public support and enable research at pace and scale. We provide the most cutting-edge data linkage opportunities for researchers by linking data from multiple sectors and by creating household and inter-generational data assets.

Open data is out of scope for our research strategy, except in cases where the Safe Havens can facilitate the linking of Open Data with sensitive level data. All the data we provide is only used to deliver high quality research that is of scientific merit, publishable standard, ethical, and that demonstrate public value.

Our definition of research, for the purpose of this strategy, is any form of sustained, disciplined, and replicable inquiry using appropriate methodologies for quantitative data analysis, that aims to generate new knowledge about health and wellbeing in Scotland. We understand health and wellbeing in accordance with the WHO definition: Health is a state of complete physical, mental, and social well-being not merely the absence of disease or infirmity.

Objectives

Developing data services

Our focus is on building, developing and running our Researcher Access Service. Alongside bringing this to scale,we will also look to develop further data services in line with user need. We are already developing synthetic versions of both health and non health datasets, together with the methedology to make this scalable, for instance. We will seek to design differential services for new researchers vs experienced researchers. A key part of how we will continue to do this is by taking a user-led design approach and underpinning our work with sector leading engagement.

Expand Data Assets

By 2030, we will be able to facilitate researcher access to at least 200 reusable data assets covering People, Places and Businesses. Collectively, the data assets will enable research over a range of priority topics including health and social care, education, employment, land use, business and trade. We will achieve this with our



brand-new data sourcing service that is optimising the initial set up of data ingestion and regular updates, as well as creation and maintenance of metadata. We will work in collaboration with researchers and data controllers to make data available in a timely manner and on a sustainable re-use basis.

This development of Scotland's existing data strengths will provide a uniquely broad data offering globally, which will benefit researchers and populations in Scotland and beyond. This will be realised through RDS getting a wider range of datasets from data controllers who already have data in the National Safe Haven, engaging with data controllers who will put their data in the National Safe Haven for the first time, and by connecting with other data services to federate access to data across different Safe Havens.

Over this period, we will be able to scale its operations to a level of stability in the number of datasets it curates whilst continuing to expand the number and complexity of uses made of those datasets including household and intergenerational linkages.

This includes a range of information asset owners from across the public sector. And the types of data include: vital events; interaction with "universal" public services, in particular GPs, other healthcare, and schools; population censuses; the protected characteristics of the population; a register of Scottish based/operating businesses; property ownership and transactions; land use; and Scotland wide household surveys.

While the focus for RDS is about case level data on people, places and businesses, there is a significant amount of open data that give researchers context, for example the Scottish Index of Multiple Deprivation, or prescribing data by GP practice. We will work to make key open data available in secure settings in ways that can be brought together with case level data. We will also work to make the metadata for key data searchable as part of the RDS metadata catalogue.

Better organising our data opens up opportunities to carry out research that would not otherwise have been possible. For instance, we expect the majority of our sensitive datasets to revolve around individuals, but these individuals live in family and household units which shapetheir experiences. We also know that there are many things that pass from one generation to the next which are key contributors in explaining people's circumstances and outcomes. To this end, we will work with the ADR-Scotland SHIPP (Scottish historic population platform) programme as they explore how to establish these things and turn data access into a business as usual process.

Having linked data over time allows us to create cohorts that explore how the experiences for businesses and people change over time, particularly around significant transitions. We need to develop an approach to cohort creation, based upon user demand.

Scotland has unique data, such as Scotlish Medical Imaging which has immense value to a range of researchers but requires measures to ensure how it is held is developed and is maintained and updated.

We aim to enhance these data sets as user need develops, and to organaise them around key policy themes, such as: equalities, health and wellbeing, vulnerable people & families, inclusive growth, and protecting and enhancing the environment. Some of this has be challenge-led, to support the development of data holdings which can provide solutions toe societal and policy challenges in particular areas. For these themes we will bring together important datasets, driven by user need.



Increase Research Projects

Research Data Scotland is for researchers and analysts across academia, Government, public bodies, the third sector, and industry. RDS will expand the number of projects coming through the Researcher Access Service by becoming the front door for a much wider range of Scottish data research, connecting existing data services. Our expectation is that there will be over 600 enquiries to the Researcher Access Service in 2029-30, delivering around 150 projects. We will develop our range of services and pricing in ways that better cover costs and increase the share of revenue from commercial income. We will look to reach a much wider set of users, and in particular look to engage with private sector users following the development of a policy for access to data for industry. For those interested in maximising the value of Scottish data, Research Data Scotland plays a unique national role, as the only organisation enabling access to as wide a range of datasets.

Evidence efficiency and sustainability

We will build and strengthen the existing services provided by the electronic Data Research & Innovation Service (eDRIS) team in Public Health Scotland and alongside our other partners: making system wide changes that reduce the costs of delivering those services, lower current barriers to accessing data and widen the range of people and organisations who can use these services. We will improve service quality by taking actions such as improving metadata and providing synthetic datasets that allow researchers to test approaches, and write code that analyses data while necessary permissions are secured to use actual data.

RDS will reduce costs from the data driven research system – with the expectation of being able to cut unit costs for sourcing new datasets and updating datasets by over 40% and reduce the cost of delivering a project by over 60% from a baselines of 2023-24, for instance. We will continue to challenge different processes and iteratively develop Scotland's data infrastructure to identify improved ways of working that retain public trust.

Federation and data linkage

We are interested in exploring how to link different data sources for research in the public good. We have developed novel technical methodologies in the national safe haven to support bringing the RAS to scale. This workstream also supports the exploration, development and implementation of different approaches to federation. By working with the five safe havens (TREs/SDEs) in the Scottish Safe Haven Network and with key organisations like ONS and SAIL, we are linking data across different levels and geographical areas and types of data. We will develop approaches to federation, and test novel linkage methods to support linking different types of data.

As part of this, we are working to federate the safe havens which will require investment in infrastructure. To support this development we will also pursue, opportunities to further develop standards, guidance and training in the TRE/SH space.

Information governance and approvals transformation is also a key area for a lot of this, and there are learnings and improvements which can be made that have lessons for others.



Governance and Delivery

We have formal agreements in place with our key partners which is essential for delivering funded research activities. We have an established business strategy, with risk management and key performance indicators in place to ensure checks at relevant intervals. Our Research Data Scotland Board has grown to include academic research expertise alongside financial experience.

To obtain IRO status, which is key to ensuring implementation of this strategy, RDS upholds the highest standards of all research related processes. We have an internal funding SOP with review and sign off required by our Leadership Team and Aligned Project Group (APG) before any funding application can be pursued. Our Operations team has developed funding costing spreadsheets. The delivery of our research strategy sits with the Leadership Team with operational oversight of the strategy managed by our Chief Partnerships and Communications Officer. Every successful grant funded project will have in-house support from our project management team and monitored via the Project Oversight Group. This includes the monitoring of activities using action logs, RAID logs, and monthly reporting with a RAG status and policies to ensure ethics and other safe guarding and risk mitigation.

We have 38 FTE staff in house, working across different areas and capabilities including an experienced data, digital and corporate teams. This includes PhDs, post-doctoral research capabilities and people with experience of being successful with applying for research funding and experience as principal investigators. By working with partners and other organisations, and building on the research projects we have already been involved with, we also use secondments from different organisations and can recruit to posts if needed.

We will also ensure skills development and support for the range of skills and careers we have within RDS, from digital, data, engagement and operations. Public engagement, wider engagement and communications, and service design are key to what we do and will further develop this approach and share and collaborate with others on this.

