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# Enhancing the evidence ecosystem: Improving outcomes for government and citizens

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# Executive Summary

In May 2024, the Academy of Social Sciences commenced a project to research and map how the UK Government in Whitehall accommodates evidence within its infrastructure, processes and mindsets. This final report and recommendations are the outcome of that work.

The project was triggered by four drivers:

- The set of 2,571 departmental Areas of Research Interest (ARIs) published by the UK Government Office for Science (GO-Science) in Autumn 2023. These showed a predominance (c 80%) of questions relating wholly or in part to social science evidence.
- The introduction of a mission-led approach by the newly elected Labour administration defining a set of medium to long term goals and a different way of approaching government.
- A greater openness to reforming aspects of government and to the use of evidence in policy and decision making since July 2024.
- The Covid pandemic which triggered a step change in the use of a wider mix of evidence in policy, most notably social and behavioural science evidence, to good effect. Even so, the Covid Inquiry First Report (July 2024) raised questions about the adequacy of use of evidence pertaining to people (inequality, ethnicity and deprivation) and place during the pandemic.

Our guiding priority throughout was for the UK Government's use of evidence in policy and delivery to result in better outcomes for citizens. Our approach was pragmatic. We sought to shine a light on perceived challenges and to help identify opportunities for enhancements of current evidence infrastructures and processes to help the UK Government achieve its goals.

We recognise there has already been progress and commend GO-Science for the steps it is taking to include social science evidence more fully and actively in the 'science' advice system. We also applaud those departments where initiatives to embed a wider range of evidence have been put in place. However, our report indicates there is more to do. Our recommendations are designed to support current trajectories of change and work within existing structures.

Our methodology combined mapping and desk-based research of published and grey literature (> 70 reports, papers etc.) and expert insights from in-depth structured interviews and discussions with more than 40 senior figures, well-versed in Whitehall, evidence, analysis and policy and including those from

STEM backgrounds. This group largely comprised senior UK Government officials, past and present, across a range of roles, plus a small number from relevant institutions outside of government.

The main focus of the findings can be characterised as a very clear and consistent call for social science evidence to be better embedded in government decision making, in order to improve outcomes for citizens. While this includes economic and behavioural evidence, it also extends to the social, educational, environmental, institutional and place-based evidence that is integral to the socialsciences. Some referred to this as a wider idea of 'societal evidence'.

The focus for participants was not about a competition between narrowly-defined disciplines and much more about ensuring that the best and most appropriate evidence from any source was available and well connected into the infrastructure to improve decision making and outcomes for the people of the UK. We focus on social science evidence in this report, because this was felt by many to be currently underweighted. We wish to be clear, this is not for the self-serving benefit of the social sciences, nor because we are the Academy of Social Sciences. It is for the benefit of the evidence ecosystem as a whole, for government decision making and ultimately for the citizens of the UK. Additional findings are more generic.

Giving a wider and richer mix of evidence more weight in the UK Government evidence infrastructure and processes would potentially:

- Help the government to widen and improve the use of evidence to inform the substance of its policymaking across the many societal areas in its current five missions and wider goals.
- Help government to achieve its policy aims by knowing better how policy will land with citizens, including different demographics and locations.
- Support government to target increasingly pressured spending in the most efficient way, by identifying what works (and what doesn't) in the real-world applications of policy.
- Help government to support better the roll out and scale up of innovation in science and technology through more ready access to evidence of the 'people' and institutional dimensions.
- Increase awareness of unintended consequences for citizens and for other policy areas by having greater capacity for an holistic and integrated view of evidence and enhanced cross-departmental liaison.

The existence of an 'evidence ecosystem' became abundantly clear from an early stage. There was broad agreement among interviewees that change and strengthening across the different parts of the ecosystem would likely lead to

better and more lasting outcomes than focusing on a single point of change.

Our work identified some excellent departmental examples of good practice in the provision of social science evidence and evidence leadership. We highlight some of those as they may offer models for others. However, there was significant need and potential for further development across government more widely.

The 12 findings and recommendations arising from this project span the realms of science evidence, analysis, policy formulation and external expert advice. They are listed in full after the Executive Summary and are contextualised in the main body of the report. Prime examples include:

- **The UK Government Office for Science (GO-Science) – as the science evidence and advice hub in government – should explore ways to ensure that there is clearer leadership of and support for social science advice and evidence within UK Government structures, including its own**.
- **The UK Government should consider ways of systematically increasing the transparency about the evidence, and the range of evidence, considered in decision making at key point(s) in the process.** For example, by publishing the evidence base that underpins policy proposals at clearly defined point(s) in the process, such as when evidence briefings are prepared for Ministers or when policies underpinned by evidence are submitted for Parliamentary consideration.
- **The UK Government to consider ways to ensure a wide range of skills are included in the review of the government training offer and possible National School of Government**. It was felt this would benefit from developing sufficient skills to commission and judge the quality of a breadth of evidence and analysis, including a wider range of social science.

Our international comparator study confirmed that other nations are in a similar position in identifying the need for more joined up and better embedded social science evidence but without a ‘silver bullet’ in terms of how to deliver it. We can learn from elements of good practice in Scotland and the European Commission although the different scales and structures of these compared with the UK Government make direct adoption of approaches less relevant.

Finally, there is the paradox of thousands of trained social scientists working in UK Government, across a wide range of grades, roles and departments, in contrast with the perception that multi-disciplinary social science evidence and advice is not given sufficient weight in decision making. This highlights that the mere presence of social scientists, while helpful, is not by itself sufficient to ensure that the full potential of a wider evidence base is realised, as so much

depends on infrastructures, processes and mindsets that have built up over decades. Instead, we need continued concerted actions to shift each of these and signal that change, which are the objectives of the recommendations in this report.

# The report's recommendations

1. **The UK Government Office for Science (GO-Science) – as the science evidence and advice hub in government – should explore ways to ensure that there is clearer leadership of and support for social science advice and evidence within UK Government structures, including its own.**

2. **UK Government departments whose work would benefit from drawing on a wider mix of social science evidence should review their current infrastructure for such provision in the light of the findings in this report.** This includes, for example, evidence on people and behaviours, communities, society, economy, places, education and training, public health and research and innovation.

3. **The UK Government should consider ways of systematically increasing the transparency about the evidence, and the range of evidence, considered in decision making at key point(s) in the process.** For example, by publishing the evidence base that underpins policy proposals at clearly defined point(s) in the process, such as when evidence briefings are prepared for Ministers or when policies underpinned by evidence are submitted for Parliamentary consideration.

4. **The UK Government should ensure that it has processes in place to review regularly the need for, and mix of, longer term 'baseline' evidence required to underpin high risk areas identified on the UK Government's risk register.** The cross-government Social & Behavioural Science for Emergencies Steering Group is a good example of meeting an identified need.

5. **The UK Government is encouraged to sustain and further develop a robust data and visualisation infrastructure, and to complement this with enhanced data sharing and progress with data integration and regional-scale data.**

6. **Departments are encouraged to ensure the job descriptions, and expectations of the two roles of Departmental Chief Analyst and CSA are complementary and distinctive.** Departments may also wish to consider including, if not already present, a challenge and support function for both to ensure advice reflects consideration of a full range of relevant analysis and evidence, respectively.

7. **Departments are encouraged to review and/or consider ways to ensure that an appropriate breadth, robustness and timeliness of evidence and analysis is brought forwards**. Departments may wish to consider the use of Impact Assessments as a mechanism for how evidence is used and

to help ensure it is brought to bear early on in the policy process; or systematic analysis and evidence submission and sign off structures for new policy, project and programme proposals.

8. **The Head of the Policy Profession, in the current review of the policy profession competency framework, should consider capturing more fully skills and guidance on scope of evidence and the breadth of evidence in policy making.** It was felt this would benefit from including that relevant to the recent revisions to the Green Book and to societal evidence, and the range of evidence gathering methodologies.

9. **The UK Government to consider ways to ensure a wide range of skills are included in the review of the government training offer and possible National School of Government.** It was felt this would benefit from developing sufficient skills to commission and judge the quality of a breadth of evidence and analysis, including a wider range of social science.

10. **Departments heavily invested in people and communities, and the five mission teams, should consider – if not already doing so – making use of/further developing advisory committees and colleges of experts,** which include the breadth and balance of relevant disciplinary expertise, including that on societal contexts, processes and issues.

11. **The UK Government and funders/sponsors of policy related fellowships to consider if it would be timely to implement a review of fellowship schemes with a view to taking a more structured and strategic view.**

12. **The Academy of Social Sciences to facilitate the social science research and practice community external to government and social scientists within government to collaborate in exemplifying outstanding examples** of social science evidence used to good effect by government.

# Introduction and purpose

All major changes in government offer an opportunity to review and potentially rethink the ways things are done. None more so, arguably, than the UK Labour Government elected in July 2024, with its commitment to a mission-led and goal-driven approach to address key societal, economic and public services issues and bring about lasting improvements. In the 17 months which have passed since the election, this approach has been shaped further with the announcement of six milestones to support the five missions, as well as a call for different thinking within UK Government, that recognises that "the people are good but the systems and structures they work in are too often outdated and make it hard for them to deliver" and the desirability of incorporating fresh perspectives from other sectors. We have also had two budgets that have set the direction of travel on economic policy, a new industrial strategy, and indications of major reforms on issues as wide-ranging as education, immigration and healthcare.

The administration is pursuing these agendas whilst simultaneously seeking to make government more efficient. In such a setting, policy aspirations and delivery will, more than ever, need to be matched by an ability to identify and draw on sound and relevant information and evidence. This report seeks to help the UK Government to realise that ambition.

For our part, the Academy of Social Sciences is driven by a similar desire to improve outcomes for people, economy and society. We believe that we can be an asset to governments across the UK by facilitating and enabling the exchange of knowledge and expertise with the social science disciplines we represent[1] and their deep understanding of society, economy, people, behaviour and places.

We draw from our expert applied academic and practitioner Fellows and the wider social sciences community. We also believe that drawing on robust social science knowledge and research evidence, alongside technical and scientific evidence, is vital to delivering more efficient and more effective government. This is because the UK faces a raft of societal, economic, behavioural and place-based challenges and because technical and scientific innovations often need to land well with people and communities in order to be welcomed and adopted.

[1] The social science disciplines include: anthropology, architecture & planning, business & management, criminology, development studies, economics, education, human geography & environmental studies, law, politics & international studies, psychology (social) & behavioural sciences, regional studies, social healthcare, sociology, social work & social policy.

Evidence fulfils four main functions:

- Evidence – its availability, reliability and use – is central to improving outcomes for people because it helps us to understand and address challenges, and illuminate opportunities, by framing the options and establishing 'what works' in potential policy solutions and in delivery.
- Evidence – including data and interpretation – inform an understanding of changing contexts within which policy and delivery happen, such as the socio-economic and ethnic mix of regions; or public perceptions and use of new technologies; or attitudes to climate change. It is extremely difficult to 'do' policy without adequate understanding of the demographics at which it is aimed; the societal setting in which it is to be applied; and how it might be received by citizens.
- Evidence – and expertise – help to identify interconnections; that is, how policy adjustments proposed or made in one 'area' may reinforce, or conversely inadvertently hamper positive impacts in, other policy areas.
- Evidence is widely used to inform the evaluation of programmes and policies, both formatively and post implementation.

The UK Government and the Academy, in their different ways, have a shared interest in how quality evidence is identified, sourced and used and the effectiveness of the existing evidence infrastructures, processes and mindsets that shape and control those vital activities. With this context in mind and given the uneven legacy in governments' use of evidence in recent years, the Academy embarked on a new project in May 2024 to consider if and how the whole evidence system in government could be enhanced **for the benefit of everyone**.

**The focus is on evidence infrastructures, processes and mindsets within the UK Government**. This is particularly timely given the adoption of a goal-orientated approach by the UK Government and the announcement of a £100 million Innovation Fund to empower innovation and experimentation within UK Government under a "test and learn" approach. We hope that this will include in its scope consideration of societal perspectives to support the strong social and economic components of the UK Government's policy platform. For example, on the importance of increasing productivity to economic growth, where the evidence-led insights of business management specialists, economists and educationalists, as well as those of business leaders and investors, will be essential. These are distinctly social science approaches and outlooks, distinct from, and complementary to, a scientific mindset which is also essential in some fields of policymaking.

Indeed, the defining characteristics of mission and goal-driven policymaking

and delivery relevant to evidence infrastructure and processes can be summarised as:

- Multi-disciplinary, drawing on a wide evidence base of knowledge, research and practice across many disciplines and across the four sectors: bio-medical science; physical science and technology (STEM); the social sciences; and, in some cases, the arts & humanities. (For example, advances in AI draw on science and technology for developments; social sciences for societal acceptability, ethics, governance and risk management, and for exploitation in the services economy; humanities and arts for exploitation of the cultural opportunities and in the knowledge economy more generally; and medical science for far reaching applications in health diagnostics and in delivering efficiencies in the NHS).
- Multi-departmental, requiring integrated, cross government working, recognising that missions are complex and interconnected, and that changes to one part of the system may have requirements or ramifications for other areas, intended or otherwise. For example, the economic growth mission will resonate through the Treasury (financial modelling); and the Departments of Business & Trade (inward investment); Education (skills and training); Housing, Communities & Local Government (regional development); Science, Innovation & Technology (new scientific advances and societal applications); and Transport (infrastructure), among others.
- Requiring multiple methodologies and evidence gathering approaches, some of which may be less well-known and less well-used currently within government, or may appear as less robust to some because the methodologies, while well established in their sector, are 'different' from those in other sectors. For example, the use of qualitative cultural (anthropological) knowledge and methodologies unlocked the pathways to containing the Ebola crisis in central Africa in 2013-2016; and the use of a range of social and behavioural sciences evidence and approaches played an important part in the management of the recent Covid pandemic (Covid Inquiry Report: Module 1, July 2024).
- Benefitting from the availability of high-quality data, on a range of scales including longitudinal data, and integrated data sets and data dashboards. Requirements will vary depending on the mission area. For example, across socio-economic, education background, health / medical and location data in relation to the NHS fit for the future mission.
- Potentially, greater complexity in the interfaces between evidence, analysis, policy, delivery and evaluation.

The Academy's project does not seek to address the demand side of the evidence ecosystem, nor the well-documented challenges around evidence translation across the academic research / policymaking divide. Instead, our

purpose is to support the UK Government[2] in enhancing the use, quality and embedding of evidence as it seeks to achieve its policy objectives, through two specific actions:

- Offering practical recommendations on how the evidence infrastructure and processes in Whitehall could be improved, by drawing on relevant reports and the views of leading stakeholders, from within and outside government, on opportunities for change and improvement. That is the substance of this report.
- Facilitating the interface between external evidence producers and government users, by documenting and improving understanding of the 'evidence infrastructure and system' for researchers, academics and practitioners outside of government whose research is robust and relevant to UK Government priorities. This will be provided as guidance on the Academy's website.

Our study is framed pragmatically, recognising that there is not the bandwidth, appetite or finance available currently for additional major changes in UK Government infrastructure. We therefore focused on critical roles and processes, within the existing system, that those we interviewed identified as offering important opportunities for enhancing the whole evidence system; improving the use, scope, quality and embedding of evidence. We are considering evidence in the round, of which social science evidence – encompassing societal, economic, place-based and behavioural evidence – is one part.

In doing this work, we are deploying our independent status as a well-connected and highly respected Academy with elected Fellows whose professional work spans from academia and research leadership to senior figures in the public and private sectors.

[2] Whilst the Academy also retains a strong interest in the workings of the governments of the three devolved nations, and indeed the devolved regions of England, the project at this stage is focused on the UK Government dimension. We intend to follow this with equivalent examinations of matters at a devolved level in due course.

# Social science research: supporting UK Government priorities

In recent years, research and associated evidence from a wide mix of topics and disciplines in the social sciences has helped to inform policy issues central to the UK Government's agenda. This is exemplified by a small selection of case studies that follow.

- Social science researchers have been instrumental in exploring and explaining how human behaviour might need to adapt to slow climate change. The Centre for Climate Change & Social Transformations (CAST) has highlighted the importance of a people-centred approach to climate action. Its work is helping to embed climate action within local government decision making and contributing to the Skidmore Review of Net Zero.
- The Pupil Premium Toolkit is a synthesis of research from 200 systematic reviews, meta-analyses and quantitative studies and provides a resource for schools on improving outcomes for learners, particularly those from disadvantaged backgrounds. It guides the work of the Education Endowment Foundation (EEF) and its funding strategy for the £200m being spent over 15 years to reduce inequalities in school outcomes in England.
- Research by City-REDI produced accurate projections of the effects of Brexit and COVID-19 on the UK economy. This directly informed the West Midlands region's socio-economic policy and led to the region receiving £1.5bn to accelerate planned infrastructure projects to inject extra money into the economy and create new jobs.
- Social science is making a difference to the health of communities through the Born in Bradford programme which is tracking the lives of over 40,000 people to help improve the health and wellbeing of the local community. Its evidence has led to projects including improving urban green spaces, an early life intervention programme and establishing a clean air zone in Bradford.
- Social science research has directly informed changes to police practices, improving approaches in tackling rape and serious sexual assault offences. Operation Soteria Bluestone uses social science research to improve how police investigate rape and serious sexual offenses (RASSO). Its Five Pillars framework – including suspect-focused investigations, repeat offenders, procedural justice for victims, officer learning, and data use – is rooted in academic theory and empirical evidence from social sciences, and has been described as a 'game-changer' for policing.
- A review of the New Medicine Service (NMS) by researchers informed the decision by NHS England to formally adopt the service which was delivered by community pharmacists. Over 5,348,000 NMS consultations have been delivered to patients starting a new medicine for a chronic condition in England from 2014-2020. The increased medicine adherence created by

NMS has provided long-term savings of £558 million for the NHS, and 213,952 quality adjusted life years gained for patients overall.

- The Bank of England's Indexed Long-Term Repo (ILTR) operation has become a key policy tool for the Bank of England to ensure sufficient liquidity for the financial system at times of stress. It is based on economic research and has been implemented and tested together with researchers. The design has led to practice changes in other central banks.

Further examples can be found on our website, or in our summary of social science impact case studies from our 2024 report *The SHAPE of research impact* and in our latest policy report *The contemporary relevance of the social sciences* published on 12 November 2025.

And conversely two examples where a lack of social science evidence / insight has led to poor policy outcomes within a UK context:

- The Windrush scandal and the UK Government's "hostile environment": The 2014 Immigration Act and the wider hostile environment framework around it were introduced with limited use of social scientific evidence and expertise about migrant communities. This was reflected in the Home Office's independent review (2020) of the lessons learned from the scandal. This recommended that "The Home Office should take steps to understand the groups and communities that its policies affect through improved engagement, social research, and by involving service users in designing its services. In doing this, ministers should make clear that they expect officials to seek out a diverse range of voices and prioritise community-focused policy by engaging with communities, civil society and the public."
- The development and rollout of Universal Credit: Universal Credit (UC) was designed around behavioural assumptions which were not supported by evidence. For example, it was wrongly assumed in the policy's development that monthly lump-sum payments would aid budgeting, but social policy evidence had long shown that low-income households often budget weekly and are vulnerable to income shocks. The National Audit Office's report on UC rollout found that "The Department's assumptions about how Universal Credit would work in practice underestimated the impact it would have on some claimants." A separate journal article (by Jane Millar FAcSS & Fran Bennett FAcSS) was also critical about the gap between the DWP's assumptions underlying the design of Universal Credit, and the research evidence about low-waged / insecure employment.

Finally, it should not be overlooked that there is considerable broader support from the social science sector for policymaking, much of which is already heavily engaged in (and connected to) government at different levels. This includes (but is not limited to) policy reports, data, briefings, events and other

outputs from organisations such as:

- **The Academy of Social Sciences**: Recent work by the Academy includes a report drawing together the insights of over 100 leading social scientists on policy-applicable insights from social science research and practice across eight themes relevant to the UK Government's policy agenda. These evidence-based contributions underline the great potential of social science research, from across a very wide range of disciplines, to help shape policy and practice. Meanwhile, a previous report emphasised the vitally important yet underdeveloped role of the social sciences in the UK's current research, development and innovation system. Drawing on data highlighting the ways in which social scientists contribute to a diverse ecosystem of talent and impact, it set out some distinctive flavours of the UK's social sciences, and how they are transforming UK research into a recipe that is genuinely world-leading and future-focused.
- **The British Academy**: Recent work by the British Academy includes a report (commissioned in association with the Academy of Social Sciences) unpacking the tangible impact of the UK's SHAPE (Social Sciences, Humanities and the Arts for People and the Economy) research sectors on the wellbeing of society, culture, and the economy through a collection of case studies. Drawing from the Research Excellence Framework 2021 Impact Case Study dataset, the report highlighted powerful examples of the contribution of SHAPE research to cultural and societal wellbeing and economic prosperity in the UK. More recently, the British Academy and the Nuffield Foundation published a report from their joint Understanding Communities programme, launched in 2022 to inform policy and practice on how communities can improve social wellbeing across the UK.
- **Universities Policy Engagement Network**: Whilst not a specifically social science led organisation, UPEN's work to improve the use of academic evidence in public policymaking has drawn heavily on social science research. Recent examples have included examining how the Home Office draws on expertise in its Research, Development and Innovation strategy, and exploring how research on early years education can inform real-world changes to children's lives.
- **Bennett Institute for Public Policy (University of Cambridge)**: This is an example of the many policy institutes now established in research strong universities. Amongst a plethora of policy-salient work, recent publications have included a working paper exploring how digital technologies shape productivity and energy efficiency in transport, a report examining how AI can make people's lives better but also analysing the risks of damaging public trust if not introduced responsibly, and a report (jointly published with the Open University's PolicyWise initiative) recommending ways in which the UK Government's new Council of the Regions & Nations Depending

could be strengthened to bring about a culture change in how the UK's four governments work in partnership to achieve shared policy goals.

- **Centre for Science and Policy (University of Cambridge)**: CsaP is an example of one of several university initiatives that have pioneered approaches to bring together science and policy, building networks of people with shared values of intellectual curiosity and public service. Their most recent Annual Conference included sessions on supporting mental health and neurodiversity in young people, disinformation, security and democracy, and the UK's housebuilding targets.

Collectively, what these case studies and organisational examples from the broader social science sector show is a wide mix of disciplines which are already actively working to support the aspiration of evidence-informed policymaking. The social science community has been intensively and increasingly engaged with policy issues in recent years and is well-placed to deliver more to government (at all levels) so that its research and insights lead to tangible benefits for citizens.

The measures outlined in this report, as we explain, could help significantly for this potential to be more fully exploited.

# Methodology and terminology

The study commenced in May 2024. The first phase comprised research and data gathering and that generated two internal reports in 2024. It included:

- A commissioned desk-based mapping and research exercise that explored documented infrastructures and processes. This also included a review of over 70 government-related reports and academic articles, including inquiries (e.g. Covid Inquiry 2024).
- 23 in-depth interviews with UK Government officials and advisers, most of whom were in current or had former roles of Chief Scientific Adviser, Director of Analysis, Head of Analytical Profession, Chief Economic Advisor, Director General, and Permanent Secretary.
- 15 informal discussions with senior leaders in the UK Government, UK Parliament, research funding, and governmental science advisory groups.
- A small number of interviews with senior figures in external bodies professionally involved in providing evidence to government and in the functioning of government.
- An international comparative study, to document and explore if, and how, social science is embedded in evidence infrastructures in other nations and regions that have a strong research base in the social sciences. The countries/regions selected were: Australia, Canada, the European Commission, Germany, Ireland, New Zealand, Norway, Scotland, and the USA. A summary is in Appendix 4.

The issues to be addressed in terms of the evidence infrastructure, processes and mindsets were identified from the data and insights gained. In some instances, the recommendations go further and offer thoughts on possible solutions for consideration that arose in our research.

The Academy consulted ‘critical friends’ well versed with the world of analysis and evidence in government with the findings and provisional recommendations. Their comments helped to refine the recommendations into this final report.

The terminology used in the report aligns with that in academia, the research councils, and more generally in public discourse. We differentiate between the four sectors of (1) bio-medical sciences, (2) STEM (physical science, technology, engineering & maths), (3) social sciences (including the behavioural sciences), and (4) arts & humanities. Each encompasses a range of different disciplines, with their distinct research methodologies, approaches and subject matter. Multi-disciplinarity can occur across sectors and between disciplines within any single sector.

In contrast, the term ‘science’ is used by the UK Government as shorthand for the four sectors combined, that is to embrace the totality of disciplines. This differs from the more commonly used and public understanding of ‘science’ as equivalent to STEM (2) and bio-medical sciences (1). A second ambiguity is in the use of the STEM acronym. Outside government this is used to refer solely to the STEM (2) sector and its disciplines. In government it can sometimes also be used as shorthand for ‘science’ as the collective of the four sectors.

# Findings and recommendations

The findings underscored the existence of a complex ‘evidence ecosystem’ in Whitehall, a point well made by Geoff Mulgan (2024), among others. This manifests in the network of interacting roles and processes, mindsets, personalities and interpersonal relationships involved at every stage; from the identification of the need for evidence, research and selection of evidence, through to its use in informing policy development, delivery and evaluation.

Seeking solutions to identified weaknesses in single points of change, such as the appointment of one new post or the insertion of one new process, is unlikely to be successful in bringing about change in any complex system, unless supported by other adjustments.

All of the interviewees and discussants either explicitly or implicitly spoke of the ‘evidence ecosystem’ and considered multiple challenges and opportunities for change within and across our focus area of infrastructure, processes and mindsets. We hope readers will bear this holistic approach in mind when reading the findings and recommendations.

We have organised the findings in terms of key functions in the evidence ecosystem:

- Science advice and evidence
- Analysis
- Policy formulation
- External evidence and expertise

For each we provide contextual information and findings, and recommendations on infrastructure and processes. We end with a short section on mindsets. Insights from international comparators are included in Appendix 4.

# 1. Science advice and evidence in government

The selection of robust and relevant evidence on which to formulate and appraise policies and underpin delivery lies at the heart of delivering better outcomes for people and for the UK.

With their overarching responsibility for the provision and quality of scientific leadership, advice and evidence in most major departments within UK Government, the Chief Scientific Advisors (CSAs) were identified by interviewees as playing a fundamental and leading role in the evidence infrastructure of government. There exist 24 CSAs, which include the UK Government's Chief Scientific Adviser (GCSA) and a further 23 across most UK Government departments, selected agencies and governments in Wales, Scotland and Northern Ireland (Appendix 1). Departmental CSA roles were introduced relatively recently (the first in 1946 (MoD) and the last in 2011 (the Treasury)). In addition, there is the UK Government's Chief Medical Officer (CMO) who provides advice and evidence leadership on medical matters.

In his time as the UK Government's Chief Scientific Advisor (GCSA), Sir Patrick Vallance developed and extended the CSA roles, and this has been continued under his successor, Professor Dame Angela McLean (see Appendix 2 and its source document). They now form a network for advice and evidence, led by the GCSA and UK Government Office for Science (GO-Science) to help ensure a cohesive and strategic approach to science advice and evidence across Whitehall. Their tasks include:

- A challenge role in their departments.
- Cross-departmental liaison on evidence as it applies to cross-cutting issues in government.
- Building bridges and relationships 'between government and the wider worlds of science and technology' including academic research.
- Ownership of the Areas of Research Interest (ARIs) that set out identified research evidence and insight priorities of each department.

CSAs also have a role in championing the UK Government Science and Engineering Profession. CSAs are generally hired externally from academia, industry or the third sector, bringing their knowledge of the research landscape, contact networks and specific research or application expertise with them. They may exceptionally be appointed as career civil servants from within government.

Deputy CSAs provide additional support in some departments. These are officials (civil servants) with backgrounds in science and engineering. Their roles include ensuring the department's policies are underpinned by science and engineering evidence and many of them manage the science and engineering professions in their departments. Little public information is available on names, backgrounds and roles.

The professional backgrounds and expertise of CSAs is traditionally strongly orientated to the STEM and bio-medical communities (Appendix 1), both in terms of numbers and breadth of scope. At the time of writing, of the 21 appointed CSAs:

- **81% (17 out of 21) are trained in STEM (9) or bio-medical fields (8)**, and almost all of them bring significant experience as research professionals in those fields in universities prior to taking on, or simultaneously with, the CSA role.
- **One CSA brings multi-disciplinary expertise** across STEM, humanities and social sciences.
- **The other three CSAs are social science professionals**, two of whom have backgrounds in university research (both retire from their CSA roles in 2025/2026).
- Three positions are held by **interim appointments** pending new CSA appointments.

The small cohort of CSAs with social science expertise and deep knowledge of the academic and wider research landscape is spread very thinly. It raises the question as to where GO-Science, and government more widely, would look for trusted evidence advisors within government on the breadth of social, behavioural and place matters, across 13 major disciplines[3].

Three important contexts were often highlighted in interviews and/or referenced in the literature as highly pertinent to the scope, balance and use of evidence linked to CSA expertise.

1. **The introduction of a mission-led approach to government** that has a strong need for multi-disciplinary and cross-departmental evidence and expertise. This requires a much wider mix of evidence, well beyond STEM and bio-medical science, in delivering the long-term missions and the six milestones for this Parliament. The need to draw on societal evidence in its

[3] In the interests of clarity, it is worth stating that we spoke with CSAs from across the breadth of academic sectors as part of the background work for this report, in order to gain a balanced perspective on the issues.

broadest sense relates, for example, to: unlocking economic growth; attitudes and behaviours on sustainability and adaptation to climate change; early years education and further education training and skills; scaling up community initiatives; changes in planning frameworks; the differing contexts of places and regions and their opportunities for growth; crime against women and online abuse; efficiencies in the health services; and productivity, employability and the economy, to name but a few. Examples of research evidence that directly informed past policies in these areas are shown on pages 15 and 16.

2. The fact that the policy and operational questions in the self-identified 2,517 departmental **Areas of Research Interest (ARIs)** are largely (c. 80%) questions that relate to social science, wholly or in part.

   For example:

   - What family-focused solutions work to ensure that children and their parents have the support needed to meet their basic needs for housing security and quality of life? ari.org.uk/aris/725789
   - What are the potential long-term opportunities and challenges of AI (artificial intelligence) use across our sectors, and at all education stages? ari.org.uk/aris/725820
   - Developing and evaluating interventions to increase the efficiency and effectiveness of NHS, social care and wider health workforce staff ari.org.uk/aris/717538
   - What is the value and impact of policing's crime prevention initiatives within the context of diverse communities and populations? How do policing's crime prevention initiatives need to be altered to have a better impact in diverse communities and populations? ari.org.uk/aris/496403
   - How does international R&I activity affect the local economy ari.org.uk/aris/345610

   The purpose of many of these questions is to enhance peoples' lives through having more and better evidence – societal evidence in the broadest sense drawn from across the social sciences – to help shape policy.

3. The **learning from national and global emergencies**, most particularly and recently the Covid pandemic. Equally as valid examples include the Ebola crisis (2014-16) and the transmission of AIDS to children and young people in Africa. Across these three cases the use of social science research and evidence about cultural behaviours, social inequalities and deprivation, and differential responses according to community demographics, including ethnicity, were vital to finding and implementing

successful control measures and recovery post crisis.

In the process, lessons were learned.
In the case of Covid, the Covid Inquiry Report (Module 1, July 2024) noted:
"*Emergency planning generally failed to account sufficiently for the pre-existing health and societal inequalities and deprivation in society*"

And Sir Patrick Vallance (then GCSA) noted in his evidence to the Inquiry:

"*SPI-B, which was set up, I believe, initially, as the name suggests, for pandemic influenza behavioural science, was set up by DHSC and stood down, and we reactivated it quickly during Covid. I'm not sure SPI-B is necessarily what you would have for ongoing behavioural science input to other things, and we recently within the last year set up a behavioural and social science for emergencies group, headed by one of the CSAs who is a social scientist, Jennifer Rubin, with the idea that that group would look across national emergencies and ask: what is the social science evidence base that's likely to be required in different emergencies? How could you commission research to try and get that sorted out? And what needs to be done both inside and outside government to try and get that right? So I strongly support the emergence of that group.*"

The importance of research and evidence in science and technology to underpin innovation and economic growth in medical, life sciences and engineering sectors, is clear to all. In contrast, R&D in the social sciences has key roles to play in underpinning growth and innovation in the services sector, including fin-tech, and in understanding institutional and structural mechanisms and contexts enabling growth and innovation. For example, in what settings can home grown startup companies flourish as UK-based scale-ups. The social sciences also play an important role – and a symbiotic one with STEM – in the transitioning of technological change and development into society, and in an equitable and fair way. That role is eloquently expressed in the following quote from a STEM Panel Member in REF2021, interviewed as part of *The SHAPE of Research Impact* report.

"*Engineering and medicine are the handmaidens to society. They provide solutions, but they can only be solutions if they are adopted by society. So, I think this government and many governments get it totally wrong. Technology isn't the solution. Technology can be used, but it can only be used by a society which is made out of individual humans. And if you don't understand individual humans, you don't understand what makes an effective culture*".

Views were widely expressed, including by interviewees with STEM backgrounds, that the potential for a strong cadre of CSAs bringing more expertise across the social sciences, and extending beyond economics and behavioural science / social psychology, is an opportunity to be grasped. Many

commented on the need and opportunities for social science evidence broadly defined (social, economic, education, place-based, behavioural and demographic) to inform the mission-driven and people-centred approach of the current government. The recently more co-ordinated cross-government infrastructure of CSAs was also felt to have greater potential for harnessing and using multi-disciplinary evidence if the sectoral expertise across the CSA network was more balanced.

We learned that in recent years some CSAs have additionally been taking on cross cutting leadership roles, both formally and informally, relating to their professional expertise. They were also identified as having important roles in promoting multi-disciplinary work and evidence. For example, as quoted above, Prof Jennifer Rubin, CSA for the Home Office, chaired the Cross-Government Social and Behavioural Science for Emergencies Steering Group between 2022 and 2024. Established initially in 2022 in response to the Covid pandemic, this group continues to operate with rotating chairs. Prof. Rubin since established a funders group to provide expertise, connectivity to the research landscape and resourcing for evidence and research gaps identified by the Steering Group. The Steering Group was established in response to a perceived need for a mechanism to identify top class social and behavioural science and gaps in knowledge relevant to dealing specifically with emergencies. One of our interviewees felt there was potentially a much larger role for this group.

The GCSA provides leadership across the CSA network and also heads the UK Government Office for Science (GO-Science) and the Science and Engineering Profession in Government, among other duties. It is a powerful and long-established role and is traditionally drawn from the bio-medical sciences or STEM fields and from either academia or industry. This role includes chairing weekly CSA network meetings, ensuring that the CSAs are both integral to GO-Science and embedded within their departmental structures.

The role of the Chief Medical Officer (CMO) was established in 1855, and acts as the UK Government's principal medical adviser, head of the Medical Profession in government, and provides public health and clinical advice to ministers in the Department of Health and Social Care (DHSC) and across government. The CMO may also function as the CSA for the Department of Health and Social Care. Both the GCSA and CMO call upon substantial support teams of well qualified staff.

For a brief period between 2003 and 2008 there existed the role of Chief Government Social Researcher, who also headed the UK Government Social Research analytical profession which is concerned largely with methodologies rather than evidence. This was followed (2008-2010) by a Chief Social Scientist role which existed independently and was held by the CSA in the Home Office, Paul Wiles. It was largely unfunded, not well-integrated into existing structures,

and was driven by the immense enthusiasm and persuasion of its incumbent.

Interviewees, including from STEM and CSA backgrounds, identified how helpful it would be for a role or roles that embodied and signalled visible social science leadership in the evidence infrastructure in Whitehall, complementing existing leadership in STEM and bio-medical sciences. Views were mixed on the benefits or otherwise of establishing a single independent post of 'Chief Social Scientist'. There was much greater consensus on working *within existing structures* to both enable and signal in government such leadership, with the purpose of ensuring social science evidence and social science input into multi-disciplinary evidence is championed, visible and appropriately available in the CSA community, departments, mission teams and beyond.

There was also a clear message from interviewees that such a leadership role was unlikely to make a difference without strengthening the way the UK Government drew on the breadth of social science evidence more generally across the ecosystem.

GO-Science was commended on the moves that had been made in recent years to recognise the contribution of social sciences and increase the presence of social science expertise within it.

The following recommendations encourage GO-Science and departments to explore and implement ways to continue this trend towards mainstreaming social science to benefit and strengthen the whole evidence infrastructure in government.

Finally, the international comparative study (Appendix 4) included two examples where social science evidence is integral to their science advice framework and normalised as part of policy, namely Scotland and the European Union.

Scotland's experiences of developing their own bespoke structures and processes in the 25+ years since the Scottish Parliament's establishment is an important counterpoint to many of the more settled and established practices elsewhere. The two specific roles within Scottish Government of a Chief Social Policy Advisor (Prof Linda Bauld, University of Edinburgh) and a Chief Social Researcher (Dr Audrey MacDougall) were felt (both by respondents within Scotland and by some respondents in other nations) to have brought about significant and clear benefits to policy. Interestingly though, this was felt to have been the case both because of the positions themselves and their responsibilities, and because they had changed mindsets and culture. It was also acknowledged that the closeness of Scottish civil society made it easier for these roles to succeed and to build networks than would be the case in a bigger nation / government.

Respondents cited several good examples of where policy had benefited from the addition of social science evidence, frameworks and methods led by these two roles. For example:

- Scotland's framework for responding to the Covid-19 pandemic, the Four Harms framework. This attempted to balance 1) Direct health harms from the virus 2) Harms to health and social care 3) Social harms and 4) Economic harm. Both roles were involved in this and viewed it as extremely important that policy responses considered and tried to mitigate social harms and that there was both monitoring and reporting on these and, where possible, conducting or commissioning relevant studies. The Chief Social Policy Advisor was lead for Harm 3, including in relevant meetings with the First Minister and Cabinet members. The Chief Social Researcher also led on wider analytical work throughout the pandemic (as also head of the analytical profession in Scottish Government).
- The newly published Health Information Integrity strategy to address mis and disinformation. The Chief Social Policy Advisor was involved with this from the beginning and helped shape the focus, worked with those conducting an evidence review to inform it, and met with the World Health Organisation and others. It is now in the implementation phase. In the development process an associated four nations government group was set up (involving GO-Science) while developing the strategy.
- Work on child poverty, including informing the development of Scotland's child poverty strategy, Best Start Bright Futures and its subsequent delivery reports. The Chief Social Researcher was closely involved from the beginning. She developed key elements including defining and developing the focus on six child poverty priority groups and the monitoring and evaluation strategy and associated interventions.

Whilst the European Commission clearly has a different status from the other nations and governments examined in the comparative study, it did boast the clearest and most transparent process for linking research with policy. Its twin Scientific Advice Mechanism (SAM) and Scientific Advice for Policy by European Academies (SAPEA) process draws well on expertise from across different disciplines and was felt to be effective in providing the best possible advice to decision-makers.

The findings thus focus on the need for:

(a) a wider mix of evidence to be embedded in government evidence infrastructures; and identify the breadth of social science advice and evidence in particular.

(b) a strong leadership role for social science evidence within the existing evidence infrastructure.

## The recommendations on infrastructure are:

### Recommendation 1

**The UK Government Office for Science (GO-Science) – as the science evidence and advice hub in government – should explore ways to ensure that there is clearer leadership of and support for social science advice and evidence within UK Government structures, including its own.**

In relation to this recommendation, our interviewees expressed some clear and considered views based on their experience.

1.1. The benefits of increasing the numbers and disciplinary breadth of social scientists within the CSA community, as relevant departmental CSA roles become available, to facilitate greater expert oversight and use of social science evidence (societal evidence in the broadest sense), in meeting the needs identified earlier in this report.

1.2. The importance of ensuring that the CSA network always has a sufficient subset of social science CSAs to turn to for expertise and advice and to help facilitate cross-cutting teams' ability to draw on multi-disciplinary evidence and advice.

For most missions, for example, this will include both STEM and social science evidence. We understand that this approach is now in the process of being implemented in at least one mission team: the Mission for Safer Streets has three CSAs attached to it and a mission head who is an anthropologist.

The value that a high-level leadership role in social science advice and evidence would bring to embedding a wider mix of evidence into the mainstream of the government evidence infrastructure. For example, as UK Government Chief Social Evidence Adviser in or aligned to the GO-Science structure.

1.3 This role could bring leading applied social science expertise, have oversight and co-ordination of social evidence and advice across the UK Government in close liaison with relevant CSAs and Heads of Analytical Professions, and complement and support the STEM / bio-medical science leadership roles embodied in the GCSA and the CMO.

1.4. A suggestion that GO-Science should keep under review the size and scope of its internal team of social science officers in light of the findings relating to the need for a wider mix of evidence, which includes a greater breadth of societal evidence.

The existing team is lightly resourced, having been established quite recently during the Covid pandemic.

1.5 In its current consideration of ways to tap into external expertise, we strongly urge GO-Science to consider having at its disposal a Permanent Social Science College of Experts, to include a broad mix of applied social sciences.

### Recommendation 2

**UK Government departments whose work would benefit from drawing on a wider mix of social science evidence should review their current infrastructure for such provision in the light of the findings in this report.** This includes, for example, evidence on people, communities, society, economy, places, education and training, public health, and research and innovation.

See also recommendation 10 on expert advisory groups.

## Evidence processes in government

Turning to the question of processes relating to evidence, interviewees raised a number of points relating to sourcing, quality control, impartiality and transparency.

The learning from the Covid pandemic featured strongly in the discussions. Many pointed to the successes of rapid evidence collation and production and the importance of integrating evidence on pharmaceutical interventions with evidence from the social sciences on non-pharmaceutical (e.g. behavioural, social, community and business) interventions, many from within the academic research community. The latter providing evidence, for example, ranging across:

- identifying and mapping demographic, including ethnic, geospatial distributions of populations and communities at risk (demography / geography);
- real-time insights on the effects on businesses both large and small and regional economies (business and management studies / economics);
- the impacts on families and young persons' education (education / sociology) at the time and into the future; and
- behavioural insights relevant to controlling the spread of the virus, such as mask wearing and social bubbles and meaningful communication (sociology / social policy / social psychology / anthropology).

The Academy of Social Sciences acted to showcase and provide an information hub in real time on emerging social science evidence and expert commentary, and the British Academy produced a report after the event on societal impacts and policy. Both drew heavily on academic research.

Lessons for the future also included mitigation of the perceived areas of

challenge. Several were cited frequently by interviewees, including:

- the difficulty of managing political translation in scientific (in its broadest sense) advice so as to ensure the rigour, high-quality and impartiality of evidence;
- the limitations of existing longer-term 'baseline' evidence (including social science evidence) on non-pharmaceutical public health interventions (also mentioned as a recommendation in the Covid Inquiry First Report, 2024); and
- SAGE and its SPI-B sub-committee suffered, especially in the early stages, from not having a greater diversity of social science disciplines represented, dominated as it was then by behavioural science. This improved over time.

The Covid Inquiry First Report (2024) also noted the need for a wider breadth of evidence including social evidence on, for example, deprivation, vulnerability, and ethnicity:

"*There was also a failure to appreciate the full extent of the impact of government measures and long-term risks, from both the pandemic and the response, on ethnic minority communities and those with poor health or other vulnerabilities, as well as a failure to engage appropriately with those who know their communities best, such as local authorities, the voluntary sector and community groups*."

Lastly, there was commentary about making evidence, including that from analysis within government, more publicly available. This was seen as having several potential benefits: encouraging researchers with pertinent and robust evidence external to government to come forwards; sharpening the incentives to consider carefully the evidence base by those charged with so doing in Whitehall; and encouraging public understanding of the evidence on which decisions are made. This enters the wider territory about open government and open policymaking, which has been examined in greater depth as part of a project by the Institute of Government (IfG) and Sense About Science examining evidence transparency.

## The recommendations on process are:

### Recommendation 3

**The UK Government should consider ways of systematically increasing the transparency about the evidence, and the range of evidence, considered in decision making at key point(s) in the process**.

For example, by publishing the evidence base that underpins policy proposals at clearly defined point(s) in the process, such as when evidence briefings are

prepared for Ministers or when policies underpinned by evidence are submitted for Parliamentary consideration.

### Recommendation 4

**The UK Government should ensure that it has processes in place to review regularly the need for, and mix of, longer term 'baseline' evidence required to underpin high risk areas identified on the UK Government's risk register.**

The cross-government Social & Behavioural Science for Emergencies Steering Group is a good example of meeting an identified need.

It is worth noting that this study has also identified a need for government to ensure impartiality and quality of evidence, analysis and advice. We support the Institute for Government's recommendations of a new civil service statute that includes a duty to provide rigorous, high-quality and impartial advice. It is important, however, to recognise that different types of evidence exist in each of the science sectors. While quantitative experimental evidence will serve some issues well, other issues may only be served, or may be better served, by well-structured qualitative or observational evidence, or a mixed methods – quantitative and qualitative – approach.

# 2. Analysis in government

Roles within the civil service largely fall within four professional groups.

- The 19 **functional** professions hold responsibility for managing functional work across government, from human resources, property and legal functions to finance and **analysis** functions.
- The **policy** profession is responsible, through devising policy, for the management of the government's role in improving the welfare, security and prosperity of the UK, from designing public services to improving education, health, infrastructure, reducing carbon emissions and regional economic rebalancing.
- The 10 **specialist** professions include the science and engineering profession (led by the GCSA), medical, veterinary, occupational psychology, planning, tax, and intelligence analysis professions, among others.
- The **operational delivery** profession, which is at the forefront of delivering public services, and includes some 250,000 individuals.

Each of the professions establishes a competency framework that sets out the skills and competencies, by grade, for its members. The frameworks are the essential guide to training and development, for example in methodologies and approaches to data collection and analysis. As such the professions are a key part of the Whitehall infrastructure. UK Government departments typically each include civil servants aligned to the functional, policy and specialist professions, and many will also include operational delivery.

The analysis function draws upon the expertise of several thousand analysts in Whitehall and associated agencies, most of whom are aligned to the UK Government's analytical professions; namely the actuarial, economics, geography, operational research, social research, and statistics professions. All six draw on the social sciences much more than on any other disciplinary sector (i.e. STEM, bio-medical, A&H). The Heads of Analysis professions meet regularly as a group and are supported by departmental heads for each profession and a defined infrastructure.

Government internal analysis constitutes an important source of contextual data and evidence to support options appraisal, policy formulation and delivery, and as a basis for advice and evaluation. The provision of analytical evidence, complements and sits alongside other evidence sources such as external research and expert knowledge; outcomes from evaluations, pilots and projects; and that contained in longitudinal studies, medical trials, and published

research, among others.

While the evidence arising from analysis will be called upon by CSAs, together with wider evidence from academic and other sources, the evidence and advice and the analytical structures in government are distinct, as are the roles of CSAs and Departmental Heads of Analysis.

Some interviewees identified that UK Government departments can operate in a siloed way, which can present a barrier to cross-government co-ordination of analysis and research.

As one example, they point to the way the Covid pandemic highlighted a lack of a standing centralised infrastructure for cross-government economic and wider social science, particularly in the early part of the pandemic. This is perhaps unsurprising, but it was all the more necessary, given the more than 100 different bodies and individuals involved in the Covid emergency planning and response.

Our research also revealed that the professions in general can be perceived, by some, as creating their own silos and operating independently, including the six analytical professions; and that their responsibilities and work appear to be relatively little known and understood by those outside government. That said, there does exist cross-departmental Mission Analysis Groups and oversight from a Senior Analysts Leadership Team.

Many of our interviewees noted that two of the analytical fields have been especially successful in establishing their profile and usefulness in government, in different ways. These are, firstly economics, which has long been established as an analytical profession with recognised analytical methodologies including cost-benefit analysis that form a core part of the Green Book. The great majority of the departmental Heads of Analysis are economists. Secondly, there is behavioural science which became better known in government through the work of the Behavioural Insights Team (BIT) led by Prof David Halpern. Behavioural science, through the SAGE SPI-B committee in particular, contributed significantly to advice during the Covid pandemic. It is not a profession in government and we heard the view that behavioural scientists can feel increasingly marginalised following the transition of BIT fully out of government in 2021.

Such concentration on these two fields can inadvertently be to the detriment of the wider awareness and use of knowledge, methodologies and approaches embedded in other analytical functions and wider social science disciplines, many of which contribute to policy relevant analysis. The recent Lievesley Report (2024), for example, called for better recognition of statisticians in the Heads of Analysis roles. In a second example, Operation Soteria Bluestone is

substantially improving how police investigate rape and serious sexual offences. As a collaborative policing services / academic project, it has directly informed changes to police practices. Its Five Pillars framework – suspect-focused investigations, repeat offenders, procedural justice for victims, officer learning, and data use – is rooted in academic theory and empirical evidence from social sciences, and has been described as a 'game-changer' for policing.

The relatively recent expansion of the Green Book to take account of wider factors in how to appraise policies, programmes and projects, and in the design and use of monitoring and evaluation has also opened some welcome opportunities for a wider breadth of analytical discipline inputs, approaches and methodologies. These include, for example, social value (the net value to society) in addition to more narrowly defined cost-benefit analysis, and the inclusion of place-based perspectives in policy appraisal.

Evaluation, including practical recommendations for policy, was seen by some as an important way of including and recognising a wider range of social methodologies. Here, the work of the Evaluation Task Force was noted in particular for its impact and excellence.

The increasing focus during and since the Covid pandemic on the use of data in Whitehall was welcomed. Key driving forces behind this were seen to be Sir Patrick Vallance and Sir Chris Whitty. Some interviewees identified the Cabinet Office Joint Data Analysis Centre (JDAC) and other data initiatives as a highly successful legacy. They were keen to see the continued development of visually-impactful presentations, data dashboards and joined-up data to aid government decision making, such as those emanating from the Data and Analysis Centre in 10 Downing Street. The capacity to generate such resources was viewed as an important part of the evidence infrastructure; a key aid in understanding contexts, demonstrating patterns and associations, exploring temporal change and spatial differences, and highlighting data gaps.

The wider implications for, and potential benefits of, greater data sharing and a continuing push to greater integration of datasets across government were also noted.

Finally, there was a clear consensus that structures and processes are important. They set expectations for the consideration of evidence and analysis to the policy making process. Equally as important was the clarity with which those were expressed, the consistency of their application, and their complementarity.

It was in this area where interviewees felt that improvements to the clarity and processes could be made and should be considered for the benefit of everyone. This is to help ensure an appropriate breadth of analysis and range of evidence

is considered, high standards are maintained, and the robustness of the analysis and evidence base is clear.

The points raised fell into two categories:

The first related to ensuring the structures aided, in so far as possible, the development of productive relationships and collaborative working in departments between Chief Analysts and CSAs. The former are established and experienced career civil servants, while the CSA roles have been more recently introduced and their incumbents are typically secondees from outside government who hold their positions for a fixed term of a few years.

Suggested actions for consideration were to ensure that within departments there was clarity over the differing and complementary responsibilities of the two roles within job descriptions. Furthermore, for them both to play a bigger challenge and support function, in their respective roles.

Better departmental integration between policy, analysis and advice/evidence was cited as desirable, part of which could, it was suggested, be the inclusion of Heads of Analysis on departmental executive committees.

The second related to processes that aid in demonstrating the robustness of the evidence and analysis and its timely use from early on in the policy and decision-making process. The desirability of developing government-wide submission structures and sign off requirements on evidence (CSAs) and analysis (Chief Analysts) was brought to our attention. As was the consideration of RAG (red, amber, green) rating of the robustness of analysis and evidence base for policy proposals.

The extent to which such measures, while desirable, would be achievable given resource constraints was raised. An alternative proposed as worthy of consideration was the use of Impact Assessments, which already exist, as a mechanism for how evidence is used and to help ensure it is brought to bear early on in the policy process.

Since the data for this project was gathered, there has come to light some serious issues of data quality within the Office of National Statistics, including in the Labour Force Survey. We urge government to resolve these as speedily as possible. Data infrastructure and surveys, including a dependable population census, are essential sources of demographic, social, economic, education, employment and other evidence informing a breadth of societal policy issues.

## The recommendations on infrastructure are:

### Recommendation 5

**The UK Government is encouraged to sustain and further develop a robust data and visualisation infrastructure, and to complement this with enhanced data sharing and progress with data integration and regional-scale data**.

### Recommendation 6

**Departments are encouraged to ensure the job descriptions, and expectations of the two roles of Departmental Chief Analyst and CSA are complementary and distinctive**.

Departments may also wish to consider including, if not already present, a challenge and support function for both to ensure advice reflects consideration of a full range of relevant analysis and evidence, respectively.

## The recommendation on process is:

### Recommendation 7

**Departments are encouraged to review and/or consider ways to ensure that an appropriate breadth, robustness and timeliness of evidence and analysis is brought forwards.**

Departments may wish to consider the use Impact Assessments as a mechanism for how evidence is used and to help ensure it is brought to bear early on in the policy process; or systematic analysis and evidence submission and sign off structures for new policy, project and programme proposals.

# 3. Policy formulation in government

The policy profession is relatively new, formed in 2013. Its members are pivotal in formulating policies and interventions that translate identified and appraised needs into deliverable actions to meet the government's objectives to improve welfare, security and prosperity in the UK. Interviewees commented on the desirability of good integration between policy, analysis and evidence.

Like other UK Government professions, key roles are to set standards and facilitate training. The policy profession competency framework sets out the skills and competencies expected at each level in the profession. It is currently being reviewed.

One pillar of the current framework is 'strategy' which covers use of both evidence and analysis. This includes reference to **commissioning, understanding, assessing and using data, evidence, analysis and advice from scientific and technical sources; and exploring delivery options using data, evidence and advice on the needs of those affected by policy**.

Much of the guidance in the competency framework is focused on science (as in STEM), engineering, statistical or economic competency, the latter including Green Book appraisal methods. Clearly economic considerations are a central component of policy, but they are not the only one. Guidance for the framework makes no direct reference to wider social science evidence, although it is implicit in several of the supporting standards such as 1.2 on data, evidence and scientific advice and standard 3.4 on evaluation. This omission was felt to represent a serious gap given the requirements of the 'strategy pillar' and that so much government policy concerns people, families, health and welfare, communities, crime, inequality, education and places – topics which are the 'bread and butter' of a wider mix of social science.

Alongside this, many interviewees identified the variable capacity among policymakers to commission effectively and utilise academic research evidence from all sectors, including social science evidence.

Some interviewees were more direct in expressing the need to normalise social science as an important but missing part of policy, citing as an example DSIT's science & technology framework and its omission of any reference to the social or behavioural sciences.

## The recommendations on process are:

### Recommendation 8

**The Head of the Policy Profession, in the current review of the policy profession competency framework should consider capturing more fully skills and guidance on scope of evidence and the breadth of evidence in policy making.**

It was felt this would benefit from including that relevant to the recent revisions to the Green Book and to societal evidence, and the range of evidence gathering methodologies.

### Recommendation 9

**The UK Government to consider ways to ensure a wide range of skills are included in the review of the government training offer and possible National School of Government.**

It was felt this would benefit from developing sufficient skills to commission and judge the quality of a breadth of evidence and analysis, including a wider range of social science.

# 4. External evidence and expertise

Much use is made of formal expert Science Advisory Committees (SACs) across government, providing a source of external, independent advice and evidence. Some operate across the scope of the UK Government's work, such as the Prime Minister's Science Advisory Committee (Council for Science & Technology), whereas others serve departmental interests, or focus down further into detailed areas of need.

These are an important component of the evidence ecosystem, in widening access to expertise and the research and practice communities beyond Whitehall. There are currently approximately 70 of them across UK Government departments. A similar approach can be found in departmental 'Colleges of Experts' and, to a lesser degree, in a departmental list of experts (such as created recently by MHCLG). Both SACs and Colleges were welcomed by interviewees as providing access to a breadth of relevant expertise.

Most SACs are focused on STEM and technical issues of advice and are dominated by members with that expertise accordingly. Sometimes these have a minority of social scientists among their ranks, recognising the societal interface with technology, for example. Other SACs seek a broader balance of expertise, reflecting their remit across a department, such as in the recent calls for experts by MHCLG and by DSIT. Very few are dedicated to providing social science advice and contact networks. The Advisory Committee for Social Science for the Food Standards Agency and the DEFRA Social Science Expert Group, which complements an equivalent expert group for STEM, are notable.

In contrast, the nine 'WhatWorks' Centres focus on specific policy areas, many of which are anchored in the social sciences. These are independent organisations, in some cases established by UK Government and which may still receive some government funding. They work to synthesise and share research findings relevant to policy and practice in their specific areas of expertise; and to identify gaps and commission some research. The centres focus, for example, on local economic growth, educational achievement, homelessness, crime reduction, health and social care, and children and families.

The brief summary above illustrates a number of well-developed approaches within and closely allied to government to enrich access to external expertise.

The often-challenging interface between academia and government/policy has been commented on extensively outside of this report and is not the primary purpose of this study. There is evidence that new approaches to break down barriers and facilitate mutual understanding and effective interchange between the two communities are increasingly being used, and to good effect.

These include:

- Policy fellowships for seconded academic experts to Whitehall departments (e.g. UKRI policy fellowships) and the training and networking provided for civil servants by policy centres in some UK universities;
- Dedicated teams or individuals in some government departments for engaging with external academics (e.g. GO-Science, DSIT, MoJ);
- Independent evidence intermediaries that engage both academics and policy (e.g. What Works Centres, the Universities Policy Engagement Network, the Behavioural Insights Team and the increasing number of policy institutes established in research-strong universities);
- External organisations, including national academies and learned societies, with their networks of Fellow and member expertise and capacity to convene a range of disciplinary evidence (e.g. Royal Society Delve initiative during the Covid pandemic).

The increasing numbers of different Fellowship / exchange schemes across government was commented on, both policy to research and research to policy Fellowships. The question was raised as to whether there should be a more strategic view of these across government.

## The recommendation on infrastructure is:

### Recommendation 10

**Departments heavily invested in people and communities, and the five mission teams, should consider – if not already doing so - making use of/further developing advisory committees and colleges of experts,** which include the breadth and balance of relevant disciplinary expertise, including that on societal contexts, processes and issues.

## The recommendation on process is:

### Recommendation 11

**The UK Government and funders/sponsors of policy related fellowships to consider if it would be timely to implement a review of fellowship schemes with a view to taking a more structured and strategic view.**

# 5. Relationships, leadership and mindsets

The final theme to emerge from the interviews in the UK was around the importance of working relationships, leadership qualities and mindsets as integral to the evidence ecosystem and complementary to infrastructures and processes in the ecosystem. Individual relationships and leadership set the tone and help to develop trust and confidence. This has synergies with Mulgan's (2024) calls for humanising the evidence ecosystem.

While those interviewed generally held social sciences in high regard, some pointed to examples of a lack of mutual understanding, and, in some cases, respect, between policymakers and social scientists as a barrier to effective engagement. References were also made to perceived methodological hierarchies in which 'quantitative, experimental and replicable evidence' can be seen in a more favourable light to 'qualitative and observational' evidence. The point was well made about the importance of recognising 'horses for courses' when it comes to evidence methodologies, that much of the societal evidence is quantitative as well as qualitative, and that mixed method approaches often have much to offer.

For example the Decision Maker Panel established by the University of Nottingham early in the Covid pandemic used a combination of quantitative survey and qualitative interview methodologies to understand the changing issues and the pressures facing thousands (sample size of 9,500) of businesses across the UK in real time and on a monthly basis. Its findings underpinned actions by the Bank of England and directly informed Treasury policies, including furlough.

The paradox of thousands of trained social scientists working in UK Government, across a wide range of grades, roles and departments, in contrast with the relative invisibility of social sciences as a recognised multi-disciplinary sector, within a generic 'science' sector or standalone within government evidence and analysis structures was commented upon in our interviews.

The reasons for the observed ambivalent mindsets among some towards social science, either in substance or as a label, was not the subject of this project, but it clearly remains an issue to be addressed in some quarters. Perhaps the combination of the following may give a timely impetus to address this:

- a current UK Parliament in which more than 50% of MPs and more than three quarters of Cabinet Members hold degrees in one or more of the

social science disciplines,

- a set of missions and wider goals that demand sound evidence of societal structures and socio-demographics, economic change, places, communities, behaviours and skills, and
- a social science research community that is increasingly interested in using its expertise and evidence to illuminate solutions as well as in defining and analysing problems

## The recommendation on mindsets is:

### Recommendation 12

**The Academy of Social Sciences to facilitate the social science research and practice community external to government and social scientists within government to collaborate in exemplifying outstanding examples** of social science evidence used to good effect by government.

# Concluding comments: benefits for UK Government

What benefits could the UK Government accrue from taking these findings and recommendations on board? And, in particular, in enabling a wider mix of evidence and having more joined up and supported social science evidence embedded in Whitehall and contributing to the evidence ecosystem across government? Our research indicates that doing so would help:

- The UK Government to widen and improve the use of evidence to inform the substance of its policymaking across the many societal areas within the current five missions and its wider goals.
- The UK Government to achieve its policy aims by knowing better how policy will land with citizens, including different demographics and locations.
- Support the UK Government to target increasingly pressured spending in the most efficient way, by identifying what works (and what doesn't) in the real-world applications of policy.
- The UK Government to support better the roll out and scale up of innovation in science and technology through more ready access to evidence of the 'people' and institutional dimensions.
- Increase awareness of unintended consequences for people and for other policy areas by having greater capacity for an holistic and integrated view of evidence and enhanced cross-departmental liaison.

On a day-to-day basis, the recommendations would help:

- The UK Government to be more fully aware of and more readily gain access to the breadth of quality social science evidence relevant to the needs of policy in areas identified in ARIs, across departments and in the mission teams.
- Enhance policymaking by improving the capacity for understanding the methodologies and evaluating the quality and robustness of social science evidence in the policy professional community.
- Encourage GO-Science – the heart of science-based (in the broadest sense) evidence and advice within UK Government – to continue to strengthen its capabilities in social science evidence to complement its expertise in STEM and bio-medical spheres, and thus its multi-disciplinary capabilities.
- Provide greater capacity to join up social science evidence across government, recognising this is highly pertinent to the areas of social data and demographics, community, family, health and welfare, education and skills, economy and employment, places and crime.

- Provide visible leadership across government for social science evidence as an important part of the broad evidence mix required to inform policy.

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# Appendices

# Appendix 1: UK Government CSAs (as listed on gov.uk on 27.10.25)

Government Chief Scientific Adviser: Professor Dame Angela McLean

Department for Business and Trade: Professor Julia Sutcliffe

Department for Culture, Media and Sport: Professor Tom Crick

Department for Education: Professor Russell Viner

Department for Energy, Security and Net Zero: Professor Emily Shuckburgh

Department for Environment, Food and Rural Affairs: Professor Anjali Goswami

Department for Levelling Up, Housing and Communities: Professor Richard Prager

Department for Science, Innovation and Technology: Professor Christopher Johnson

Department for Transport: Sam Rose (interim)

Department for Work and Pensions: Catherine Hutchinson (interim)

Department of Health and Social Care: Professor Lucy Chappell

Food Standards Agency: Professor Robin May

Foreign, Commonwealth and Development Office: Professor John Edmunds

Health and Safety Executive: Professor Andrew Curran

His Majesty's Treasury: Jess Glover

Home Office: Professor Jennifer Rubin (until 31.12.25; thereafter Professor Brooke Rogers)

Met Office: Professor Stephen Belcher

Ministry of Defence: Professor Tim Dafforn

Ministry of Justice: Hugh Stickland (interim)

National Police Chiefs' Council: Professor Paul Taylor

National Security: Professor Danielle George

Northern Ireland Executive: Professor Helen McCarthy

Scottish Government: Professor Calum Semple

Welsh Government: Professor Jas Pal Badyal

# Appendix 2: Roles and responsibilities of CSAs

These include the following

- Provision of advice and challenge directly to the Secretary of State, other Ministers and policymakers in the department.
- Performing an independent challenge function to the department, ensuring that science and engineering evidence and advice for departmental policies and decisions is robust, relevant and high quality.
- Ensuring that there are mechanisms in place to ensure that policymaking and the delivery of services and operations are underpinned by science and engineering.
- Oversight of the effective operation of departmental Scientific Advisory Committees and Councils or College of Experts.
- Working with CSAs in other departments to share good practice across government and to identify and resolve cross-departmental science issues.
- Producing a departmental R&D Strategy for the department, which also considers departmental arm's-length public laboratories.
- Leading and engaging on relevant national and international science and engineering issues.
- Management and/or oversight of departmental science and technology (S&T) budgets.
- Working with the other analytical Heads of Profession and Departmental Directors of Analysis (DDAs) to ensure a robust and integrated evidence base underpins policy formulation, delivery and evaluation.
- Ownership of the department's Areas of Research Interest (ARI) document, to be developed in collaboration with the department's Head of Policy Profession (HoPP) and Head of Analysis (HoA).
- All CSAs are likely to have work that deals with sensitive security matters.

From: Guidance for government Chief Scientific Advisers and their Officials (2025)

# Appendix 3: Key milestones in the recent history of Chief Social Scientist and Head of Analysis functions

1999: Cabinet Office *Modernising government* influential White Paper setting out commitments to improving policy by being 'forward looking and shaped by the evidence' (Cabinet Office, 1999, p. 15)

1999: Ron Amann FAcSS becomes first Director of the Centre for Policy and Management Studies with a remit to improve policy delivery based on evidence and best practice (Haddon, 2012)

2000: ESRC Lecture by Education Secretary, David Blunkett '*Influence or Irrelevance: can social science improve government?*' called on researchers to have enhanced role in policy (Hodgkinson, 2000)

2000: *Adding it up: improving analysis & modelling in central government* Cabinet Office report sets out how government can improve social science capacity (Performance and Innovation Unit, 2000)

2003: Chief Government Social Researcher post created, filled by Sue Duncan, who was also Head of the Government Social Research service (Burnett & Duncan, 2008)

2003: *Great Expectations; The Social Sciences in Britain* (Commission on the Social Sciences, 2003) calls for a single unifying spokesperson for the social sciences.

2008: Sue Duncan leaves post as Chief Government Social Researcher and this was not replaced.

2010: Chief Social Scientist role (commenced 2008) ends with departure of P. Wiles.

2010: Leadership for the Government Social Research Service profession is then shared between two joint heads: Jenny Dibden FAcSS (then DWP) and Richard Bartholomew FAcSS (DfE) both with other major roles.

2011: House of Lords select committee report *Behaviour Change* recommends formally creating a Chief Social Scientist role (House of Lords Science and Technology Select Committee, 2011 Paragraph 4.23)

2013: *Future directions for scientific advice in Whitehall* (Wilsdon & Doubleday, 2013) edited collection with chapter setting out case for Chief Social Scientist by AcSS.

2013: What Works National Adviser first-ever post created for David Halpern FAcSS (Sanders & Breckon, 2023).

2018: Analysis professions brought together as the Government Analysis Function (House of Commons Public Administration and Constitutional Affairs Committee, 2024). Geography added as a new analytical profession in subsequently.

2019: Sir Ian Diamond FAcSS becomes National Statistician and cross-government Head of Analysis Function; retired in 2025.

# Appendix 4: International perspectives

Alongside the data gathering about the UK Government's approaches and processes for incorporating evidence into policy, a parallel piece of work was carried out to benchmark those efforts against international comparators. Based on expert participant interviews of those working at the interface of social science research and government, it sought to explore how different governments draw on evidence – particularly from the social sciences – to inform policy development. It also considered what lessons the UK might learn with respect to the infrastructures, processes and mindsets which have proved successful elsewhere.

Whilst the discussions were high-level and based on a relatively small sample in each country (24 interviewees across nine countries), the top-line takeaways are illuminating. Four points in particular stood out – the first two of which underscore the difficulty of changing systems, but the latter two nevertheless demonstrating some key differences between the UK Government's model and those used elsewhere which might warrant further consideration:

1) Firstly, whilst the UK Government's processes for developing policy may be confusing or impervious to those outside of government, this is far from being uncommon. Of the nine territories we examined, we found that the evidence structures and processes adopted by governments were considered in all cases except one to be relatively opaque to external users and thus not easy to engage with. The one exception was the European Commission, which has its own specific and public scientific advice mechanism and – in theory, at least – was therefore clearer about what it needed from researchers and how they could respond.

2) Secondly, while some governments were more open than others to including social science evidence in their processes and culture, there was no 'magic infrastructure bullet' for the UK which our respondents could identify. Some specific advisory posts (such as those discussed in the next bullet point) were seen as potentially useful conduits but also came with shortcomings; respondents also noted the benefits of better relationships between individual researchers and individual policymakers within government, which can be hard to engineer artificially.

3) Thirdly, in Scotland, the two specific roles of Chief Social Researcher and Chief Social Policy Advisor were felt (both within Scotland and by some

respondents in other nations) to have brought about significant and clear benefits to policy. Interestingly though, this was felt to have been the case both because they had changed mindsets and culture and because of the positions themselves. Both are dedicated posts. It was also acknowledged that the closeness of Scottish civil society made it easier for these roles to succeed and to build networks than would be the case in a bigger nation / government. Nevertheless, respondents were able to cite several good examples of where policy had benefited from the addition of social science evidence / perspectives.

4) Finally, in Norway, the civil service was distinct from the others examined in the interviews, because they have eschewed “scientific advisor” roles, and instead draw on expertise from research institutes, universities and other institutions by each department / ministry having a research portfolio within it. Respondents in other nations praised this system (which is common in other Scandinavian countries too), but it was also recognised that the success of these expert commissions is heavily dependent on a very different political culture. Respondents felt that such a system would not directly transfer to the UK because of higher levels of public distrust in politics and in our civil service.

Any recommendations arising from the international comparisons report would necessarily be quite broad brush given the huge differences in the countries studied and the relatively small number of interviews carried out. Instead, the headline finding from the comparisons is that there is no ‘magic bullet’ or ‘one-size-fits all’ solution. The UK is far from being alone in facing challenges when seeking to incorporate evidence more fully into its policymaking, and even those nations which DO offer effective models (such as Norway) do so amidst extremely different contexts which make replication difficult.

Nevertheless, we do believe that benefits are seen elsewhere (such as in Scotland) from making the social sciences’ evidence role more explicit and supported with dedicated resources in the policymaking process, and that these add weight to our recommendations of more practically embedding and promoting social science across the UK Government’s infrastructures.

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