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Independent Evaluation of the National Capability in Behavioural Research

Evaluation framework

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1 Executive Summary

The **National Capability in Behavioural Research (NCBR)** is a programme funded by the **Economic and Social Research Council (ESRC)** that aims to harness, connect, and extend the UK's existing capacity and capability to research fundamental questions about human behaviour within wider social and economic contexts and to address major societal challenges, ranging from climate change and public health threats to the risks associated with technological transformation and political shocks.

With a total investment of £17 million, NCBR comprises a central 'hub' **(Behavioural Research UK, BR-UK)** designed to connect stakeholders and drive interdisciplinary innovation in applied behavioural research. This is complemented by 'spokes' to be established over time to deliver key elements of the national capability. To date, one spoke has been established: **The Centre for National Training and Research Excellence in Understanding Behaviour (Centre-UB)**, a Centre for Doctoral Training Plus (CDT+) that aims to build a critical mass of interdisciplinary researchers with the knowledge and skills to transform our understanding of human behaviour. Both BR-UK and Centre-UB include a **post embedded within a government department** to help catalyse the exchange of knowledge and people between the research community and government. The hub post sits within the Government Office for Science (GO-Science) and the CDT+ post sits within Government Skills (previously the Government Skills and Curriculum Unit) in the Cabinet Office.

Technopolis has been commissioned to undertake a process and impact evaluation of the NCBR programme, with two key objectives:

- The **process evaluation** aims to identify how the programme can be delivered most effectively, identify gaps and provide recommendations for improvements to the programme to inform the future delivery of this programme and others
- The **impact evaluation** aims to understand the extent to which the programme has achieved its objectives, its impact and any unintended outcomes for delivery partners, participants and the wider economy, and to assess the programme's value for money (VfM)

To undertake this evaluation, we will employ a theory-based mixed methods approach, grounded in the assessment of a programme-level Theory of Change (ToC), as per the recommendations of the HM Treasury Magenta Book for the evaluation of complex programmes. The theory-based approach will integrate both quantitative and qualitative methods to provide a comprehensive understanding of the NCBR programme's impact.

This **Evaluation Framework Report** is the first deliverable of the independent evaluation of the NCBR programme. The report proceeds as follows:

- **Section 2** presents a detailed background of the NCBR programme, its strategic objectives, governance structure, and the roles of BR-UK and Centre-UB.
- **Section 3** presents the programme's Theory of Change, illustrating the pathways from inputs and activities to outputs, outcomes, and impacts. It also identifies the key risks and assumptions that underpin the ToC, providing a framework for understanding potential challenges and dependencies that could influence the programme's success. Additionally, this section defines key terms to ensure clarity and consistency across the evaluation.
- **Section 4** sets out the evaluation framework for the process evaluation. It outlines the process evaluation questions to be addressed and presents the approach that will be used to answer each of these questions.

- **Section 5** sets out the evaluation framework for the impact evaluation, including the use of counterfactual analysis, contribution analysis, and a value-for-money assessment to evaluate the programme's efficiency and effectiveness.
- **Section 6** specifies the data sources and tools to be used in the evaluation, including document review, surveys, interviews, case studies, programme monitoring data and administrative data. These sources provide both quantitative and qualitative evidence to assess outputs, outcomes, and impacts against the Theory of Change.
- **Section 7** provides a detailed timeline, milestones, and key deliverables for the evaluation, including baseline, interim, and final evaluation activities.

Through this evaluation, Technopolis aims to generate actionable insights into the effectiveness, efficiency, and value of the NCBR programme. The findings will not only assess the programme's contribution to advancing behavioural research and its application to societal challenges, but also provide evidence-based recommendations to enhance the design and delivery of future ESRC and UKRI initiatives. This will ensure that the NCBR programme achieves its full potential in building a robust national capability in behavioural research that informs impactful policy and practice.

2 Introduction

2.1 Overview of the National Capability in Behavioural Research

2.1.1 *Background*

Behavioural research (BR) plays a key role in the UK policy landscape and its use within the UK Government has increased in recent years. Over the past fifteen years, there has been ongoing support for behavioural expertise across UK nations and in a range of government departments. Some of these, such as those in the Government Office for Science (GO-Science) and Government Skills are directly involved in the programme under analysis. Moreover, behavioural research appears in most of GO-Science's Areas of Research Interest (ARI) documents,[1] and is highlighted as a key underpinning need in strategies outlining government ambition, including the 2021 Plan for Health and Social Care[2] and the Integrated Review.[3]

Furthermore, behavioural research was central to the UK's response to the COVID-19 pandemic. Academic research and policy analysis conducted on this experience has documented how teams of applied behavioural scientists in the UK Government worked to balance agility and scientific rigour in applying behavioural research to policy challenges during the pandemic,[4] in addition to several tools developed for policy practitioners.[5] Importantly, however, this research has also pointed to a number of ongoing challenges in this field related to effectively building effective collaboration mechanisms between behavioural researchers and policymakers, effectively synthesising and communicating evidence to inform policymaker decision-making, and conducting meta-analyses.[6]

More specifically the Economic and Social Research Council (ESRC) considers research that improves the understanding of human behaviour as a critical priority theme in its Strategic Delivery Plan for the period 2022-2025. This theme also underpins several of the other research priority themes included in the plan.[7] ESRC's vision is to establish a national capability in behavioural research with a similar function as the technology and infrastructure capabilities developed by UKRI for other areas of science,[8] aiming to drive a step-change in applied behavioural research in the UK.

2.1.2 *Objectives of the programme*

The overarching aim of the **National Capability in Behavioural Research (NCBR)** programme is to harness, connect, and extend the UK's existing capacity and capability to research fundamental questions about human behaviour within wider social and economic contexts to address major societal challenges. Key objectives are to:

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[1] UK Cabinet Office & GO-Science, Areas of Research Interest. Available online.
[2] HM Government (2021). "Building Back Better: Our Plan for Health and Social Care." Available online.
[3] Cabinet Office (2021). "Global Britain in a Competitive Age: the Integrated Review of Security, Defence, Development and Foreign Policy." Available online.
[4] Deo, R. et al (2021). "The role of behavioural science in addressing Covid-19 challenges: Examples from local government." Behavioural Science and Public Health Network. Available online.
[5] Byrne-Davis, L. et al (2022). "Using behavioural science in public health settings during the COVID-19 pandemic: The experience of public health practitioners and behavioural scientists." Acta Psychologica; Apr; 224. Available online; Deo et al (2021).
[6] Bryne-Davis et al (2022); Hubbard, G. et al. (2023). "Behavioural Sciences Contribution to Suppressing Transmission of Covid-19 in the UK: A Systematic Literature Review." International Journal of Behavioural Medicine. Available online.
[7] Economic and Social Research Council Strategic Delivery Plan 2022-2025. Available online.
[8] Behavioural Research UK (BR-UK) Launch Event, 04/03/2024. Available online.

- Facilitate evidence-based decision making through timely, high impact, and independent research on human behaviour that meets the needs of policymakers, industry, and civil society.
- Build a critical mass of researchers with the knowledge and skills to transform our understanding of human behaviour by applying a diverse range of relevant methods.

2.1.3 Scope of the programme

The first competition for funding under the NCBR programme was officially launched in July 2022. The design of this five-year programme was built on the results of a scoping exercise conducted in 2021 to better understand needs in the area, and which informed the Strategic Outline Case for NCBR. ESRC has committed £17 million in total investment to the programme, including £10 million to fund a 'hub' (Behavioural Research UK, BR-UK) to connect stakeholders and drive interdisciplinary innovation in applied behavioural research. This is complemented by 'spokes' to be established over time to deliver key elements of the national capability. To date, one spoke has been established: The Centre for National Training and Research Excellence in Understanding Behaviour (Centre-UB), a Centre for Doctoral Training plus (CDT+) funded by a £7 million investment. NCBR is being funded using a modular approach, with the core work programme for the hub commissioned alongside the first spoke and additional spokes to be funded in future.

BR-UK is composed of a transdisciplinary team from a range of universities and partners, with the Principal Investigator and Co-Director (Professor Linda Bauld) based at the University of Edinburgh and a second Co-Director (Professor Susan Michie) at University College London (UCL). BR-UK was launched in November 2023 and will run at least until 2028. It will play a critical role in building NCBR by acting as a connector and facilitator across academia, the public sector, private sector and third sector, strengthening relationships between academic and wider stakeholders. Additional aims for BR-UK are to facilitate evidence-based decision making through research that meets the needs of society, to develop innovative approaches and methods for behavioural research and to increase use of, and access to, existing data infrastructures.

The first 18 months for the hub are focused on scoping, engagement and development of a vision and longer-term work programme alongside early research activities. Implementation of longer-term plans will follow subject to successful stage gate review, expected to take place in spring 2025. To date, BR-UK has launched a number of initiatives including a capability scoping study that includes mapping the UK's BR capabilities and five demonstration projects focusing on how existing and expanded frameworks and data can be used to generate new findings. BR-UK has also deployed their rapid response functionality to produce a rapid systematic review for the UK Government in addition to a rapid research project on the 2024 Summer riots in England. Planned future activities include the development and management of a cross-sector network for applied behavioural researchers in the UK and the launch of a research commissioning fund. Further detail is provided in section 3.5.2.

Centre-UB is a national CDT+ focused on behavioural research which is hosted at the University of Birmingham. It aims to develop a new generation of highly skilled PhD graduates, early career researchers and provide relevant training and other developmental activities to non-academics. It was launched in October 2023 and will run beyond 2029, the end date for the programme. Its objectives are:

- To produce the next generation of well-rounded researchers with expertise in behavioural research who are ready to take up leadership-track positions in academia, industry, policy and wider professional communities.

- To promote a positive research culture and a commitment to equality, diversity and inclusion (EDI) through specific training and good practice. Engagement with stakeholders, experts-by-experience and the public is embedded throughout.
- To deliver training and knowledge exchange that brings cutting edge, actionable insights to policymakers, industry and charitable sectors, leading to impact in communities beyond Higher Education.

It is expected that Centre-UB will support three cohorts of at least 17 PhD studentships per academic year, of which eight per year will be ESRC-funded students with the remainder funded by the University of Birmingham and Centre-UB partners. The centre is also expected to secure co-funding to support a minimum of two additional students annually from non-academic partners. The CDT+ will also support three cohorts of eight early career research fellows and deliver a programme of additional training and development activities for behavioural researchers and users of behavioural research both within and outside of academia. The co-production of research, impact and training are central to its mission. Partner organizations will host PhD students and fellows for research placements, provide mentorship and supervision to these trainees, and deliver training to the PhD students and early career research fellows. More details on the activities of Centre-UB are provided in section 3.5.3.

Importantly, both the hub and CDT+ include a **post embedded within a government department** to help catalyse the exchange of knowledge and people between the research community and government, therefore supporting the development of the hub and CDT+. The hub post sits within the Government Office for Science (GO-Science) and the CDT+ post sits within Government Skills (previously the Government Skills and Curriculum Unit) in the Cabinet Office.

The rationale for adopting a **hub and spoke model** for the NCBR programme is grounded in the need to foster connectivity, collaboration, and innovation across the UK's behavioural research landscape without centralising activities within a single institution or discipline. The model enables ESRC to capitalise on and strengthen existing expertise and infrastructure across multiple universities, sectors, disciplines and stakeholders while avoiding duplication or the creation of a wholly new institution. The hub serves as a connector and facilitator, ensuring strategic alignment across initiatives and creating opportunities for collaboration, knowledge exchange, and the development of shared research agendas. The spokes extend this capability by delivering targeted programmes of work that address specific priorities. The hub and spoke model also enhances synergies between institutions and disciplines by fostering a distributed, networked approach to behavioural research. Rather than concentrating efforts within a single centre, the model leverages the strengths of multiple institutions and partners, ensuring that expertise, infrastructure, and data resources are shared and optimised. The expectation is therefore for the NCBR hub and spokes to collaborate and engage closely together and with a wide range of stakeholders (such as the abovementioned government offices) to support key activities. This includes linkages with other ESRC/ UKRI initiatives.

The **stakeholders** of NCBR can be categorised as follows:

- **ESRC / UKRI:** The funder and commissioner of the NCBR programme, responsible for its strategic design, investment, and oversight. Beyond their role in commissioning the programme, ESRC and UKRI are also stakeholders because NCBR has the potential to engage with and complement other UKRI investments relevant to BR.
- **Delivery partners:** The organisations commissioned by ESRC to deliver core elements of the NCBR programme. To date, this includes the institutions and organisations involved in delivering BR-UK and Centre-UB.

- **Academia:** Universities and research institutions are engaged at multiple levels:
  - Institutions directly involved in the programme as delivery partners (see above)
  - Academic institutions and researchers that are involved in NCBR research projects, training or other activities.
  - Academic institutions and researchers who may benefit indirectly from the tools, research, methodologies, and theories produced by the NCBR programme. This includes those participating in stakeholder engagement activities, such as seminars, workshops, and networks facilitated by BR-UK and Centre-UB.
- **Public sector:** Government departments, agencies, and public bodies engaged with NCBR as research users, trainees or hosts for embedded posts, in addition to those contributing to or benefitting from BR insights, engaging in co-funding, placements, or collaborations to advance applied behavioural research.
- **Private sector:** Businesses and industry partners engaged with NCBR as research users and trainees, in addition to those contributing to or benefitting from BR insights, engaging in co-funding, placements, or collaborations to advance applied behavioural research.
- **Third sector:** Charities, nonprofits, and civil society organisations contributing to or benefitting from BR insights, engaging in co-funding, placements, or collaborations to advance applied behavioural research.
- **The public:** Individuals and groups engaged as beneficiaries, participants, or stakeholders in NCBR activities, such as co-produced research and public engagement efforts.

Finally, in terms of **governance**, the programme is overseen by a Senior Responsible Officer and a Programme Board. Delivery is managed by investment managers who liaise with the investments' leadership teams and are supported by an investment management group. Each investment also maintains its own governance arrangements to ensure alignment with programme objectives while addressing its specific needs.

2.2 This evaluation

ESRC has commissioned Technopolis to undertake a process and impact evaluation of the NCBR programme. The study is taking place in three stages over the period July 2024 to June 2029 as follows:

- **Stage 1.** This involves scoping, design of the evaluation framework, and the collection of baseline data (July 2024 – March 2025)
- **Stage 2.** This involves the interim evaluation (March 2025 – December 2025).
- **Stage 3.** This involves the final impact evaluation (January 2026 – June 2029), including annual evaluation reports in 2026 and 2027, a final evaluation report in 2028 and a follow-up impact report in 2029.

2.2.1 Aims and objectives

The aim of this project is to evaluate ESRC's investment into the NCBR, comprising of:

- **A process evaluation** to identify how the programme can be delivered most effectively, identify gaps and provide recommendations for improvements to the programme to inform the future delivery of this programme and others
- **An impact evaluation** to understand the extent to which the programme has achieved its objectives, its impact and any unintended outcomes for delivery partners, participants and the wider economy, and to assess the programme's value for money (VfM)

2.2.2 *Approach*

To undertake this evaluation, we will employ a theory-based mixed methods approach, grounded in the assessment of a programme-level Theory of Change (ToC), as per the recommendations of the HM Treasury Magenta Book for the evaluation of complex programmes. In line with the initial Invitation to Tender, our aim is to:

1. Assess the extent to which NCBR has met the overall programme aims and objectives.
2. Establish a baseline and framework to assess the impact of NCBR on the use of behavioural research and evidence in policy and practice, and national capability in behavioural research.
3. Collect qualitative and quantitative evidence on wider social and economic impacts of the NCBR and its activities.
4. Explore the effectiveness of the NCBR delivery model, including generating learning around the extent to which different programme elements are complementary and the effectiveness of the NCBR posts embedded within GO-Science and Government Skills.
5. Capture learning from the set up and delivery of NCBR to inform the stage gate review for the hub and ongoing programme management and governance.

The theory-based approach will integrate both quantitative and qualitative methods to provide a comprehensive understanding of the NCBR programme's impact. Integrating different methods will enhance the impact evaluation by leveraging the various strengths of different approaches to mitigate their individual limitations. For example, qualitative contribution analysis will be used to understand the causal links between NCBR activities and new applications of behavioural research in policy contexts and the private sector. This method is most appropriate for understanding complex, context-specific interactions and mechanisms, providing detailed insights into how and why certain outcomes occur. However, qualitative data alone may not fully capture the scale or generalisability of programme outcomes and impacts. Thus, survey data, internal programme monitoring data and external secondary data sources will also be used to quantify the outcomes of the programme, capturing a broad range of stakeholder perspectives. Finally, a value-for-money assessment will be conducted to evaluate the economic impact and efficiency of the NCBR investment. This will provide a financial perspective on programme impact. By combining these methods within a theory-based framework, we can ensure that the evaluation captures a holistic view of NCBR's impact in a rigorous manner. A detailed description of our approach is provided in the rest of the report.

2.3 This report

This **Evaluation Framework Report** is the first deliverable of the independent evaluation of the NCBR programme. Note that the approach set out in **this document is intended to be iterative** and to evolve as we advance through the different stages of the evaluation and as more evidence becomes available. In particular, the framework will be revised at the beginning of Stage 3 of the evaluation.

3 Theory of Change

This section presents the Theory of Change for NCBR. A ToC is a "programme theory" that explains how an intervention is expected to produce its results.[9] This ToC builds upon initial versions developed by ESRC and BR-UK, while also taking account of information obtained through scoping activities (desk research and interviews) and the requirements of the evaluation. It was further developed during two workshops conducted in September – October 2024, one with ESRC and a second with the NCBR delivery partners.

Figure 1 sets out a visual summary of how the various inputs and activities of NCBR are expected to result in a series of immediate outputs, which could then lead to a series of intended short-to-medium-term outcomes, which in turn could contribute to wider and longer-term intended impacts (Box 1 explains each of these terms in more detail).

Box 1 Navigating the Theory of Change

Inputs	**Resources** used for a programme or intervention *For example, grant funding, information or people.*
Activities	**What is being delivered** *For example, a training programme, events or evidence synthesis.*
Output	**Measurement of what has been delivered** *For example, new partnerships, new publications, data or personnel upskilled.*
Outcomes	**Measurement of any changes for key stakeholders,** involved in the programme *For example, increased knowledge or capabilities.*
Impact	Net change for key stakeholders, **incl. wider economic and social impacts,** beyond the programme *For example, improved policy and practice.*

3.1 Definitions

Understanding the key terms around the programme is important to ensure a common ground among all the actors involved in the evaluation. We have therefore provided a selected set of key definitions below, drawing from the Strategic Outline Case and other relevant documents. These definitions have been developed for the evaluation and interpretation of its findings. The terms may be defined differently in other contexts, for instance in documents produced by programme participants or the UK Government.

Awardees

In the context of this evaluation, awardees are all those individuals awarded funding by BR-UK and Centre-UB under the NCBR programme, as part of various activities such as the BR-UK commissioning fund, or the selection of doctoral students and fellows by Centre-UB. More details are available in the description of the specific activities in Section 3.5.

[9] Funnell, S.C. and Rogers, P. J. (2011), Purposeful program theory: effective use of theories of change and logic models. San Francisco: Jossey-Bass/Wiley.

Partners

In the context of this evaluation, partners refer to the range of organisations and entities that collaborate with ESRC, BR-UK, Centre-UB and the embedded posts in support of the NCBR programme's objectives. Partners may include academic institutions, government departments, private sector organisations, and third-sector organisations contributing resources, expertise, or support to the programme. It is important to note that the term *partners* is distinct from *delivery partners*, as used elsewhere in this document. *Delivery partners* specifically refer to the institutions and organisations commissioned by ESRC to deliver BR-UK and Centre-UB, the current elements of the NCBR programme.

Behavioural research

As mentioned in the Strategic Outline Case, one of the aims of the NCBR programme is to co-create and promote a vision for behavioural research that draws on a broad definition, factoring in broader societal and economic drivers of human behaviour. Similarly, both the Strategic Outline Case and the Terms of Reference for the independent evaluation of NCBR mention that ESRC's conceptualisation of behavioural research goes beyond the 'nudge' agenda and individual approaches to behaviour change. In line with this ambition, the evaluation will adopt a broad definition that is based on early work from BR-UK: behavioural research is research that aims to understand what influences, characterises, changes or results from people's individual or collective behaviour.[10]

Behavioural researchers and users

Linked to the definition of behavioural research and to the work of BR-UK, for this evaluation we will adopt broad definitions of behavioural researchers and users:

- BR researcher: An individual that conducts behavioural research, as part of a formal role in employment, study or volunteering.
- BR user: An individual that draws upon behavioural research, as part of a formal role in employment, study or volunteering.

Notably, both BR researchers and users may operate in diverse sectors, including academia, government and public institutions, the private sector, and the third sector.

Data infrastructure

The use and linking of existing BR data and data infrastructure is a key activity for behavioural researchers involved in the NCBR programme, which aims to widen access to such data and increase its use in behaviour-related policymaking. Thus, as understood in the context of this evaluation, data infrastructure refers to UK data infrastructure resulting from data collection, curation, access and data services performed or funded both by the ESRC (such as Administrative Data Research UK) and other relevant research actors and institutions, including academics, universities and research funders.

3.2 Rationale for investment

The overarching aim of the NCBR investment is to harness, connect, and extend the UK's existing capacity and capability to research fundamental questions about human behaviour. NCBR's key objectives are to:

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[10] Behavioural Research UK (2024) Mapping the UK behavioural research landscape. Available online.

- **Facilitate evidence-based decision making** through timely, high-impact, and independent research on human behaviour that meets the needs of policymakers, industry, and civil society
- **Build a critical mass of researchers** with the knowledge and skills to transform our understanding of human behaviour by applying a diverse range of relevant methods.[11]

Behavioural research is a priority area in ESRC's 2022-2025 Strategic Delivery Plan. For UKRI, behavioural research can be seen as a core foundational capability that allows it to respond to UKRI priority challenges, for example, achieving Net Zero, enhancing uptake of innovations, and supporting health and wellbeing. The investment would also support delivery of other ESRC Delivery Plan priorities such as Prosperous Places, talent and skills and data infrastructure. To successfully address these critical issues and generate and sustain changes in how people, groups, communities and organisations behave, behavioural research from a wide range of disciplinary perspectives is essential. The objectives of the investment and relevant policy context have been described in further detail in Section 2.1 of this report.

As noted in the Strategic Outline Case for NCBR, ESRC is uniquely placed to undertake activity to fill these needs because its investment, role and experience straddles research, data, capacity building and knowledge mobilisation. ESRC has a broad range of behaviour relevant research investment to draw on, extensive investment in data resources and methodological expertise to exploit, as well as the ability to tap into the thematically focused research activity led by others across UKRI and internationally. Organisationally, this fits well with UKRI's established role as a convenor across academia, government and the private sector, connecting talented people and ideas to catalyse change; and ESRC has strong relationships across government in particular that can be built on. In addition, ESRC has a proven leadership role in setting the standard for doctoral training combined with expertise in commissioning ambitious initiatives to develop interdisciplinary capacity and skills. This fits with the R&D People and Culture Strategy[12] ambitions of creating dynamic, attractive and interdisciplinary research career trajectories.

[11] ESRC (2024) Understanding behaviour. Available online.
[12] UK DSIT (2021). Research and Development (R&D) People and Culture Strategy. Available online.

3.3 Logic model

Figure 1 Logic Model for the National Capability in Behavioural Research

INPUTS

I1: Financial investment from ESRC

I2: In-kind and financial resources from participating universities and other partners (public, private and third sector)

I3: Knowledge, networks and staff time from ESRC, NCBR Programme Board, BR-UK team, Centre-UB team, awardees, embedded post holders, GO-Science team, Government Skills team

I4: BR community in the UK and globally (researchers and users)

ACTIVITIES

ESRC

A1. Investment management (incl. governance and monitoring activities)

BR-UK

A2. Mapping BR needs and capabilities

A3. Co-creation of research agenda with BR-UK stakeholders

A4. Research activities

A5. Dissemination and engagement activities

A6. Reviews and advice for government and other BR users (incl. rapid response function and Ask BR-UK)

A7. Establishment and management of BR network

A8. Capacity building

A9. Management and administration activities

Future activities

A10. Awardee selection

Centre-UB

A11. Selection of doctoral researchers and fellows

A12. Training, including training for Centre-UB awardees and continuing professional development for non-academic partners

A13. Mapping training needs in academia, the public, private and third sector

A14. Research activities conducted by doctoral researchers and fellows

A15. Co-creation of research and training agenda with Centre-UB partners

A16. Researcher placements

A17. Dissemination and engagement activities

A18. Management and administration activities

Cross-cutting

A19. Embedded posts in GO-Science (BR-UK) and Government Skills (Centre-UB)

A20. Coordination between BR-UK and investment spokes

A21. Implementation of open science practices

A22. Embedding of EDII throughout NCBR practice

OUTPUTS

Needs and capabilities

O1. New knowledge related to UK's BR capabilities (e.g. stakeholders, institutions)

O2. Identification of UK's BR needs (or potential areas for contribution) across BR researchers and users

O3. New BR training courses and training materials

O4. Doctoral researchers and fellows funded and trained

New methods, theories and knowledge

O5. New tools, methods and theories for producing, innovating and applying BR

O6. New BR research knowledge (e.g. publications, policy briefs)

O7. Syntheses of existing BR knowledge for wider audiences

O8. Increased stakeholder awareness of BR use-cases and careers (incl. outside academia)

New or strengthened partnerships and networks

O9. New or strengthened partnerships between academia, public, private and third sector to conduct and use BR

O10. New or strengthened networks within UK BR

O11. Increased use of BR data infrastructure

New or strengthened policies and interventions

O12. New funding and investments into BR from public, private and third sector

O13. New BR interventions in UK public, private and third sector

OUTCOMES

Research uptake

OC1. Stakeholder awareness and recognition of BR-UK as important and credible source for BR evidence needs

OC2. Improved alignment of research priorities between BR researchers and users

OC3. Increased capability and capacity within public sector and other users to use BR evidence in local and national decision making

OC4. Increased use of BR in public policy design and implementation

People and skills

OC5. New generation of applied BR leaders outside and within academia

OC6. Upskilled BR researchers and users

OC7. Increased collaboration between researchers and public, private and third sector in development and delivery of training

Behavioural research

OC8. Broader range of disciplines and sectors collaborating and contributing to BR

OC9. Increased relevance of BR output to UK stakeholder needs

OC10. Increase in existing BR evidence synthesised

OC11. Improved access to and use of data among BR researchers and users

IMPACTS

IM1. A national BR capability that effectively connects and convenes stakeholders across academia, the public sector, private sector and third sector to address key societal challenges

IM2. Increased capacity to embed and deliver effective BR across the public sector, private sector and third sector

IM3. Increased effectiveness of public policy interventions

IM4. Increased capability among UK and international researchers to conduct leading-edge multi- and interdisciplinary research incorporating BR

3.4 Inputs

We have identified four key inputs into the NCBR programme.

I1. Financial investment from ESRC. As described in Section 2.1.3, ESRC has thus far invested £17 million into NCBR, comprised of £10 million for BR-UK and £7 million for Centre-UB. Additional investment is foreseen for future spokes in the programme, but no decisions on additional investment have been made at the time of writing.

I2. In-kind and financial resources from participating universities and other partners. This includes resources such as financial resources, staff time, research facilities and data access, provided by participating universities and partner organisations across the public, private, and third sectors.

I3. Knowledge, networks and staff time from ESRC, NCBR Programme Board, BR-UK team, Centre-UB team, awardees, embedded post holders, GO-Science team, Government Skills team.

I4. BR community in the UK and globally. This input comprises the collective human capital and expertise of BR researchers and users, both within the UK and internationally. It includes contributions from specialists who can provide knowledge, insight, and collaboration to the NCBR community, as well as the pool of skilled researchers and practitioners capable of advancing the capabilities' objectives (for example, by submitting research proposals or participating in events).

3.5 Activities

We have identified 21 key activities to be undertaken by the NCBR programme.

3.5.1 ESRC activities

A1. Investment management. This involves ensuring effective delivery and accountability of NCBR, most notably through the implementation of governance mechanisms, monitoring processes, coordination between NCBR partners and key stakeholders, and managing funding opportunities for new NCBR investments.

3.5.2 BR-UK activities

A2. Mapping BR needs and capabilities. This involves a comprehensive scoping study to assess current UK behavioural research capabilities and identify unmet scientific and stakeholder needs, with the objective of positioning UK behavioural research at the forefront internationally over a 10-year horizon. This study will inform the development of a national network and a capability-building strategy.

A3. Co-creation of research agenda with BR-UK stakeholders. Building on research and stakeholder consultation, BR-UK will collaboratively identify priority areas for BR investment.

A4. Research activities. BR-UK will undertake a portfolio of research projects, including five demonstration projects in the first 18 months and additional projects to be agreed following the Stage Gate Review. Additionally, BR-UK will fund research proposals funded via the BR-UK commissioning fund. These research activities will require the inclusion and consideration of Equality, Diversity, Inclusion and Intersectionality (EDII) principles and approaches as an essential component of exemplary practices in BR and its translation, with the objective of producing BR that will meet the needs of a diverse population including underserved and under-represented groups.

A5. Dissemination and engagement activities. This includes hosting seminars, publishing research findings, organising and hosting a biennial conference, and disseminating content of relevance to the UK BR community through various channels (including newsletters and social media) to engage a broad audience of stakeholders.

A6. Reviews and advice for government and other BR users. This includes establishing a rapid systematic review function to deliver high-quality reviews that support government and other BR users decision-making on emerging issues and an 'Ask –BR-UK' function that enables stakeholders to directly request support on specific issues, with BR-UK either providing or facilitating the necessary expertise.

A7. Establishment and management of BR network. This involves establishing and managing a UK-wide network for behavioural research to foster collaboration and knowledge sharing across the behavioural research community. Additionally, it will serve to raise awareness of the commissioning fund to attract high-quality bids.

A8. Capacity building. This involves a programme to develop behavioural researchers' knowledge and skills in various areas including public and stakeholder engagement and topic-specific methodological training. It also involves developing and disseminating tools **to increase the accessibility of emerging BR methods.**

A9. Management and administration activities. This involves the strategic and operational aspects of running a large research investment to support effective delivery and accountability, including reporting, financial management, coordination of the investment's activities, and ensuring compliance with governance standards (including the establishment and management of BR-UK's own governance groups).

Future activities

A10. Awardee selection. This involves identifying and selecting research grant recipients (under the commissioning fund) with the potential to drive impactful and innovative research that is highly relevant to stakeholder needs.

3.5.3 Centre-UB activities

A11. Selection of doctoral researchers and fellows. This involves identifying and selecting early-career researchers with the potential to become future leaders in applied behavioural research, both within and outside academia. The selection process involves a transparent, open competition that aims to identify individuals capable of conducting impactful, innovative behavioural research that aligns closely with stakeholder needs. It is open to both UK and international researchers, with 30 percent of studentships available to international students.

A12. Training. This involves providing training for academic behavioural researchers (including Centre-UB awardees) and continuing professional development (CPD) for non-academic partners. The training aims to build skills in behavioural research and enhance the practical application of research insights across various sectors. Certain training activities are co-delivered by Centre-UB and the centre's partners.

A13. Mapping training needs in academia, public sector, private sector and third sector. This involves systematically identifying and assessing training needs among Centre-UB partners across the public sector, private sector and the third sector.

A14. Research activities. This refers to research activities conducted by Centre-UB doctoral researchers and fellows.

A15. Co-creation of research and training agenda with Centre-UB partners. All Centre-UB studentships and fellowships will be collaborative, with external partners contributing to define the scope of the research and its design. Centre-UB partners are also involved in consultations to identify content for the Centre's training and to provide feedback on the training modalities that suit their personnel. Current partners include public institutions (e.g. the National Police Chief Council and the Office for Health Improvement and Disparities) and private companies that conduct and use BR.

A16. Researcher placements. All Centre-UB doctoral researchers will complete a research-in-practice placement with one of the Centre's external partners. The placement will be responsive to both the needs of the doctoral researcher and the placement provider, and may involve activities related to method development, data collection and analysis, public engagement/knowledge translation and/or applied practice. Additionally, Centre-UB Fellows may opt to participate in these placements.

A17. Dissemination and engagement activities. This includes a range of activities, most notably:

- Annual Research Festivals convening awardees and the Centre's external partners to explore behavioural challenges aligned with the UN Sustainable Development Goals.
- An annual Research Celebration convening awardees and the Centre's external partners to showcase and celebrate research successes.
- Centre-UB roadshows where the centre brings BR to partner organisations.
- Collaboration between Centre-UB awardees and external partners to disseminate research findings and promote knowledge exchange
- Support from the University of Birmingham's public engagement team to assist awardees in integrating their research into public engagement programmes.

A18. Management and administration activities. This involves the strategic and operational aspects of running a CDT+ to support effective delivery and accountability, including reporting, financial management, coordination of the centre's activities, and ensuring compliance with governance standards (including the establishment and management of Centre-UB's own governance groups).

3.5.4 Cross-cutting

A19. Embedded posts in GO-Science (BR-UK) and Government Skills (Centre-UB). These posts aim to further strengthen the interface between behavioural research and government. This primarily involves:

- Stimulating and sustaining engagement between BR and government communities.
- Catalysing the bidirectional exchange of knowledge and skills between BR and government communities.
- Building BR capacity and capability in government.
- Identifying and shaping BR questions and priorities relevant to government needs.
- Conducting targeted, policy-relevant research to support government.

A20. Coordination between BR-UK and investment spokes. This involves coordination mechanisms between BR-UK and its investment spokes that aim to identify and leverage synergies as well as minimising duplication of efforts.

A21. Implementation of open science practices. This involves the active adoption and promotion of open science practices by BR-UK, Centre-UB and future NCBR spokes. It includes practices such as pre-registration of studies, open data sharing, and open access publishing.

A22. Embedding of EDII throughout NCBR practice. EDII principles will be embedded throughout NCBR practice. For BR-UK, this involves implementation of BR-UK's EDII action plan, including the establishment of an EDII group, sharing practices with other cross-institutional research groups and working to ensure that public engagement is with people from diverse backgrounds and includes representation across the Equality Act 2010 protected characteristics. For Centre-UB, this involves implementation of the Centre's EDII strategy, which aims to embed EDII principles throughout the Centre's practice, including in the selection and management of doctoral researchers and fellows as well as through the establishment of EDII advisory groups.

3.6 Outputs

As presented in the ToC logic model (Figure 1), we foresee four categories of outputs:

- BR needs and capabilities
- New methods, theories and knowledge
- New or strengthened partnerships and networks
- New or strengthened policies and interventions

3.6.1 Needs and capabilities

O1. New knowledge related to UK's BR capabilities. This results from a set of activities designed to assess the UK's behavioural research landscape, notably including the BR-UK scoping study. In addition, the establishment and management of a BR network creates channels for information exchange among stakeholders which will provide insights into existing capacities and capabilities.

O2. Identification of UK's BR needs (or potential areas for contribution) across BR researchers and users. Building on the BR-UK capability scoping study as well as Centre-UB activity to map BR training needs, this output results from ESRC and the NCBR delivery partners working with stakeholders to identify the UK's BR needs. For Centre-UB, this will result in the development of a national BR training strategy.

O3. New BR training courses and publicly accessible training materials. This results from the training activities implemented by Centre-UB and BR-UK.

O4. Doctoral researchers and fellows funded and trained. This results from Centre-UB's selection, training and research activities.

3.6.2 New methods, theories and knowledge

O5. New tools, methods and theories for producing, innovating and applying BR. This results from the research activities of BR-UK, Centre-UB and the embedded posts complemented by the adoption of open science approaches. It also results from BR-UK's capacity building activities, which include the development and dissemination of tools to increase the accessibility of emerging BR methods.

O6. New BR research knowledge (e.g. publications, policy briefs). This results from the research activities of BR-UK, Centre-UB and the embedded posts.

O7. Syntheses of existing BR knowledge for wider audiences. This results from the evidence synthesis activities carried out by BR-UK and the embedded posts, as well as a range of knowledge dissemination activities carried out by the NCBR delivery partners.

O8. Increased stakeholder awareness of BR use-cases and careers. This results from a set of activities to engage and partner with stakeholders. These include:

- Knowledge dissemination activities carried out by BR-UK, Centre-UB and the embedded posts.
- The provision of reviews and advice for government and other BR users.
- Centre-UB's co-creation of research projects and research-in-practice placements, both of which facilitate bidirectional knowledge transfer between behavioural researchers and stakeholders.
- The implementation of open science practices, which expands access to BR knowledge outside academia.

3.6.3 *New or strengthened partnerships and networks*

O9. New or strengthened partnerships between academia, public sector, third sector and private sector to conduct and use BR. NCBR delivery partners will form and strengthen partnerships with stakeholders by co-creating their research / training agendas with them. Partnerships specifically between academia and government will also be formed and strengthened through the embedded posts and BR-UK's provision of reviews and advice to government. Centre-UB's co-creation of research projects and research-in-practice placements will also strengthen partnerships between academia and other sectors.

O10. New or strengthened networks within UK BR. This results from the establishment and management of a UK BR network, as well as coordination activities between BR-UK and NCBR investment spokes.

O11. Increased use of BR data infrastructure. This results from several activities, including the research activities of BR-UK and Centre-UB. It is noteworthy that, Centre-UB students and fellows, where appropriate, are expected to make use of data infrastructure in their research, and also receive specialised training around data skills. This output is also expected to result from BR-UK engagement with relevant stakeholders such as Administrative Data Research UK.

3.6.4 *New or strengthened policies and interventions*

O12. New funding and investments into BR from the public sector, private sector and third sector. This is expected to result from a range of NCBR activities that highlight the value of BR to prospective funders. These include effective stakeholder engagement, demonstrating impactful research outcomes, opportunities for co-funding of studentships and fellowships and demonstrating the capability to strengthen BR capacity through training and skills development.

O13. New BR interventions in the UK public sector, private sector and third sector. This results from the provision of reviews and advice for government, Centre-UB research-in practice placements and the activities of the embedded posts. It may also indirectly result from the research activities of BR-UK and Centre-UB.

3.7 Outcomes

As presented in the ToC logic model (Figure 1), we foresee three categories of outcomes:

- Research uptake
- People and skills
- Behavioural research

3.7.1 *Research uptake*

OC1. Stakeholder awareness and recognition of BR-UK as important and credible source for BR evidence needs. BR-UK is expected to deliver high-impact research, capacity building, policy advice and stakeholder engagement outputs, establishing itself as a trusted authority for BR evidence needs, including urgent evidence needs.

OC2. Improved alignment of research priorities between BR researchers and users. NCBR will develop a comprehensive understanding of the UK's BR needs and implement a range of collaborative initiatives to co-create research with diverse BR users. This is expected to increase alignment between the priorities of BR researchers and the practical needs of BR users.

OC3. Increased capability and capacity within the public sector to use BR evidence in local and national decision making. NCBR will provide stakeholders in the public sector with tailored capacity building and BR tools that are expected to increase public sector capability and capacity to effectively use BR evidence.

OC4. Increased use of BR in public policy design and implementation. NCBR will provide stakeholders in the public sector with policy-relevant research findings and tailored policy advice. This is expected to increase the public sector's utilisation of BR in policy design and implementation.

3.7.2 *People and skills*

OC5. New generation of applied BR leaders outside and within academia. Centre-UB doctoral researchers and fellows are expected to form part of a new generation of applied behavioural research leaders across academia and the public, private and third sectors. Additionally, BR-UK's demonstration projects and projects funded by the BR-UK commissioning fund will enable established behavioural researchers to lead high-impact projects, further advancing their expertise and leadership roles within BR.

OC6. Upskilled BR researchers and users. NCBR is expected to enhance the skills of BR researchers and users through a range of training courses, publicly available training materials and research tools as well as stakeholder engagement activities that collectively equip them to conduct and use BR more effectively.

OC7. Increased collaboration between researchers and public sector, private sector and third sector in the development and delivery of training. This outcome results from Centre-UB's co-creation and implementation of a national BR training strategy with diverse stakeholders, as well as its collaborative research-in-practice programme.

3.7.3 *Behavioural research*

OC8. Broader range of disciplines and sectors collaborating and contributing to BR. NCBR is expected to foster research collaboration across both academic and non-academic sectors, as well as across academic disciplines. This is expected to result from the NCBR's network-building and partnership-building activities, as well as through the research activities of BR-UK, Centre-UB and the embedded posts.

OC9. Increased relevance of BR output to UK stakeholder needs. NCBR will systematically assess the UK's BR needs and use this evidence to inform the research initiatives it will support. This is expected to lead to improved fit between BR output and the needs of UK stakeholders. Additionally, by embedding EDII principles in NCBR-supported activities, the NCBR is expected to produce BR outputs that address the needs of a diverse population, thereby enhancing the relevance and impact of the research.

OC10. Increase in existing BR evidence synthesised. This outcome is driven by BR-UK's rapid systematic review and Ask BR-UK outputs, along with policy-relevant research conducted by the embedded posts. Together, these initiatives are expected to increase the availability of synthesised BR evidence.

OC11. Improved access to and use of data among BR researchers and users. This outcome results from a set of related outputs. These include the research activities of BR-UK and Centre-UB, BR-UK engagement with relevant stakeholders, promotion of the widespread use of behavioural datasets with open science and data-sharing approaches.

3.8 Impacts

We have identified four key impacts expected to be achieved by the NCBR programme.

IM1. A national BR capability that effectively connects and convenes stakeholders across academia, the public sector, private sector and third sector to address key societal challenges. This is expected to be achieved by NCBR investments' establishment of a broad, actively engaged BR network that facilitates collaboration between stakeholders, supports BR research uptake, and enhances BR capacity and capability among stakeholders.

IM2. Increased capacity to embed and deliver effective BR across the public sector, private sector and third sector. This is expected to be achieved through two distinct pathways. First, NCBR will create accessible channels for stakeholders to connect with BR expertise, such as BR-UK's rapid systematic review, rapid response research and Ask BR-UK functions. Second, it will strengthen BR researchers and users' capabilities through training, capacity-building and collaborative research initiatives.

IM3. Increased effectiveness of public policy interventions. This is expected to be achieved through the integration of high-quality BR evidence and expertise into policy design and implementation. This includes the use of evidence syntheses in policy design and implementation, policymaker utilisation of BR tools developed by NCBR, and the application of findings from original research supported by NCBR.

IM4. Increased capability among UK and international researchers to conduct leading-edge multi- and interdisciplinary research incorporating BR. This impact is expected to be achieved through three key pathways. First, the development of new theories, methods, and knowledge will provide researchers with advanced tools and frameworks to integrate leading-edge BR into their work. Second, BR capability will be strengthened through the training and development of doctoral researchers and fellows, supporting the emergence of a new generation of highly skilled BR leaders. Third, by providing new opportunities for collaborative research.

3.9 Assumptions and risks

There are several risks and assumptions that underpin the ToC, as set out below.

3.9.1 Assumptions

- **Selection of awardees is effective.** The success of NCBR initiative is contingent upon a selection process that identifies awardees based on their capability to produce high-quality, impactful research. The assumption is that the selection criteria and process align with the strategic objectives of the programme.
- **Scale of investment is sufficient.** The scale of financial and resource investment in the programme is assumed to be adequate to support the intended outcomes and impacts of the programme.
- **Buy-in from government departments and local authorities for increased use of BR.** For NCBR outputs to translate into policy change or implementation, government departments and local authorities must demonstrate a willingness to adopt and integrate BR into their

decision-making processes. The assumption is that these bodies recognise the value of BR and are committed to incorporating such approaches into their policies and programmes, including through active and sustained engagement with NCBR.

- **Sufficient absorptive capacity for take-up of BR interventions in the public sector.** Public sector agencies and local authorities must have the internal capacity (in terms of skills, knowledge, and organisational readiness) to effectively take up BR findings.
- **Spillovers (of knowledge / awareness) take place.** It is assumed that the knowledge generated through NCBR will extend beyond direct participants, leading to broader dissemination and adoption across various sectors. These spillovers could manifest as increased awareness of BR principles among non-participating organisations, the sharing of best practices through informal networks, or the uptake of successful interventions by additional public sector agencies, local authorities, or other stakeholders.
- **Effectiveness of embedded posts.** The effectiveness of the embedded posts hinges on their ability to influence decision-making and foster cross-departmental collaboration. It is assumed that these roles have sufficient convening power and access to senior leadership to drive the integration of BR into policy and processes.
- **Availability of high-quality, secure, and reliable data for behavioural research.** The success of NCBR relies on the availability of high-quality, secure, reliable, and accessible data to support behavioural research efforts. This assumes that sufficient relevant data exists, and where relevant, that data owners are motivated and willing to collaborate with NCBR, granting access to relevant data sources while adhering to data protection standards.
- **Availability of sufficient existing evidence for syntheses.** It is assumed that there exists an adequate body of high-quality BR evidence on priority policy issues that can be synthesised to effectively inform policy and practice.

3.9.2 Risks

- **Lack of stakeholder engagement:** Stakeholder engagement is critical to the success of NCBR. There is a risk that stakeholders may not be sufficiently involved or invested in the programme’s activities, resulting in a disconnect between the research being conducted and the needs or priorities of prospective BR users. Moreover, stakeholder engagement can also be uneven, with the programme relying heavily on input from a narrow group of core stakeholders. Such uneven engagement could skew the focus of the programme, limiting its capacity to reflect the full range of user needs and reducing its overall impact. Finally, there is a risk associated with effective communication with partners, as misalignment or miscommunication could affect the perceived relevance of NCBR's work, potentially undermining engagement.
- **Lack of coordination between hub and spokes undermines impact.** A failure to coordinate effectively between the NCBR hub and spokes could lead to inefficiencies, such as duplication or fragmentation of efforts. Such lack of coordination could reduce the overall coherence and impact of the programme.
- **Changes in priorities.** Political changes or shifting policy agendas could result in the reallocation of resources and attention away from BR. Additionally, such changes could lead to departmental restructuring or changes in leadership within key bodies, resulting in the loss of established NCBR partners within. Such changes could disrupt the continuity of NCBR partnerships and reduce their impact. Additionally, there is a risk that the BR agenda could be deprioritised due to competing initiatives or policies that divert attention, resources, or political will.

- **Erosion of networks and institutional knowledge due to staff turnover.** There is a risk that staff turnover within NCBR or partner organisations will undermine the continuity and impact of the programme, as the departure of key personnel can result in the loss of institutional knowledge and established relationships. This challenge is particularly pronounced for programmes like NCBR, where network development plays a central role in achieving impact.
- **Balancing short-term priorities and strategic objectives.** Due to the high demand for urgent BR expertise from the UK, there is a potential risk that BR-UK could focus disproportionately on responding to immediate, high-priority needs at the expense of its longer-term strategic objectives. While addressing urgent demands is crucial, an overemphasis on short-term priorities could limit BR-UK's ability to achieve its broader mission of driving systemic change through BR.

4 Process Evaluation Framework

The process evaluation will examine the extent to which (and how) NCBR is working and being delivered as intended, with a particular focus on whether lessons can be learned for the future. This section presents the relevant evaluation questions within a process evaluation framework, identifying how each will be addressed through planned data collection methods.

4.1 Process evaluation questions

The evaluation questions that will drive the process evaluation can be categorised into two groups: programme and investment level.

Programme level

PEQ1. Is the NCBR working and being delivered as intended and according to the original aims and objectives? How have its design and commissioning contributed to this?

PEQ2. To what extent and how have the individual investments within NCBR worked together to deliver a coherent programme and address programme aims?

PEQ3. How ESRC's management and governance arrangements for the NCBR have influenced the timeliness and effectiveness of the programme's delivery?

PEQ4. How has monitoring, reporting and evaluation been used to support ongoing programme management, governance, learning and improvement?

Investment level

PEQ5. How effectively have the investments within NCBR engaged with stakeholders and captured their needs and priorities? How and to what extent has this shaped the investments' priorities, activities and delivery?

PEQ6. How have the investments within NCBR addressed and embedded ethics and EDII in their design and delivery?

PEQ7. To what extent and how are the posts embedded within UK government departments facilitating effective delivery across the programme, including facilitating the transfer of information and learning with each other, the investments and relevant departments?

PEQ8. How effective are management and governance arrangements of the investments within NCBR, and how have they influenced delivery? How have the investments monitored, learned from and improved delivery during the programme?

4.2 Process evaluation methodology

4.2.1 Process mapping

A critical initial component of the process evaluation will be a comprehensive process mapping exercise, which will be guided by the process evaluation questions, a series of interviews and the document analysis (see more in the following section).

We will design full process maps of all the main processes involved in NCBR, including interactions with key stakeholders such as GO-Science, Government Skills and target training groups. The process maps will include descriptions of notable process innovations or deviations from ESRC's 'business as usual', drawing comparisons with other relevant programmes. The resulting process maps will serve as illustrative focal points in our evaluation report. Through this, our assessment of NCBR processes can be visualised and systematised as much as possible. The processes to be mapped include:

- Programme design
- Programme governance
- Stakeholder engagement (including dissemination)
- Application processes (including assessment of applications)
- Award management
- Training and capacity-building delivery
- Monitoring and reporting

4.2.2 Interim process evaluation

The majority of process evaluation activities will be concentrated in the interim evaluation stage to produce findings that will inform learning and drive improvements for the remainder of the programme's implementation. The interim process evaluation will draw on four sources of evidence, as described below.

Document review. We will conduct a comprehensive document review encompassing programme design and strategy documents, application guidelines and assessment criteria, key policies and procedures governing programme implementation and any relevant internal and external communications.

Interviews. We will conduct a programme of 20 interviews with individuals connected to each of the NCBR processes. This will include high-level staff at ESRC and at the NCBR hub and spokes but will also include individuals involved at more administrative levels, e.g. staff involved in processing calls, setting up and formulating management and engagement strategies, and running the various decision-making processes. We will conduct up to 20 interviews of this type, with the sampling strategy to be determined based on the process mapping exercise described above.

Mid-line survey. In the mid-line evaluation survey, we will incorporate a short survey module to gather feedback on NCBR processes, directed at the primary stakeholder groups connected to NCBR. This will feature a short set of closed questions, allowing us to obtain a more representative assessment of which processes worked well for which stakeholder groups.

Administrative and programme monitoring data. We will draw on administrative and programme monitoring data to provide quantitative insights into the programme's implementation. This data will include metrics related to programme outputs and performance indicators.

Table 1 Approach to addressing the process evaluation questions

Question	Description of approach	Supporting evidence
Programme level		
PEQ1: Is the NCBR working and being delivered as intended and according to the original aims and objectives? How have its design and commissioning contributed to this?	To answer this first evaluation question, we will compare the views and experiences of relevant stakeholders involved in the delivery of the NCBR programme and analyse relevant documents and monitoring data (e.g. bids, reporting from BR-UK and Centre-UB, etc.). Starting from the mapping of processes described in section 4.2.1, we will ask stakeholders what their expectations were for the programme and whether implementation of its different elements was in line with these expectations. We plan to discuss what worked well or less well, paying specific attention to those elements representing a novelty or a different approach from usual for UKRI investments, such as the hub and spokes model. Moreover, we plan to ask BR-UK and Centre-UB specific questions to understand their interpretation of the NCBR programme aims and objectives, and how they exemplified and adjusted them to their own specific objectives and activities, performing a comparative analysis.	• Document review (review of bids and reports) • Interviews with ESRC, BR-UK and Centre-UB
PEQ2: To what extent and how have the individual investments within NCBR worked together to deliver a coherent programme and address programme aims?	As mentioned above, the hub and spokes model is a central element of interest for the delivery of the NCBR programme, and this question will require exploring the value added by this model, in terms of scope of the investments and collaboration between BR-UK and Centre-UB. To do so, we will focus our analysis on any overlap of their activities or existing gaps, keeping in mind that the latter could be filled by future spokes funded by the programme. We will also investigate unexpected barriers and facilitators to the delivery of the programme and how they have been overcome or harnessed. The information will be mainly qualitative, coming again from the document review and interviews with the two investments.	• Document review (review of bids and reports) • Interviews with ESRC, BR-UK and Centre-UB
PEQ3: How ESRC's management and governance arrangements for the NCBR have influenced the timeliness and effectiveness of the programme's delivery?	As described in section 2.1.3, there are different actors involved in the governance of the programme, such as the members of the Programme Board and those of the Investment Management Group. We plan to consult with stakeholders involved in the governance of the programme (from ESRC, Go-Science and Government Skills) to collect information on their experience dealing with the programme and lessons learned on how to improve it, as well as with the investments to get their point of view on the support received by the management and its impact on the implementation of their activities.	• Interviews with ESRC, GO-Science, Government Skills, BR-UK and Centre-UB
PEQ4: How has monitoring, reporting and evaluation been used to support ongoing programme management, governance, learning and improvement?	Similarly to the previous question, answering PEQ4 will entail consulting with the ESRC delivery team to understand how the information collected by the monitoring system and the evaluation are being utilised to adjust any issues or shortcomings. Questions	• Interviews with ESRC

Question	Description of approach	Supporting evidence
	will focus on the utility of the information collected, on the processes in place to make use of it, and on the changes and their impact.	
Investment level		
PEQ5: How effectively have the investments within NCBR engaged with stakeholders and captured their needs and priorities? How and to what extent has this shaped the investments' priorities, activities and delivery?	This question calls explicitly for the collation of views and experiences of all the stakeholders involved and targeted by the NCBR activities and is therefore best addressed qualitatively through interviews and surveys. We plan to investigate with the members of the consortia forming the hub and the CDT+ and with external actors their degree of awareness of the activities and results from the programme. It will be particularly important to assess the extent to which BR-UK and Centre-UB manage to co-create research agendas and training programmes that meet the needs of intended target groups (although this stakeholder engagement element is expected to be observed across all activities of the investments).	• Interviews with BR-UK and Centre-UB • Mid-line evaluation survey
PEQ6: How have the investments within NCBR addressed and embedded ethics and EDII) in their design and delivery?	The calls for proposals explicitly required BR-UK and Centre-UB to embed ethics and EDII in the design and delivery of their activities, and we expect to observe this in various aspects of the programme, from the BR tools and methods developed by BR-UK to the training of PhD students, fellows and other actors by Centre-UB. We will include questions on ethics and EDII in all our data collection activities and will monitor it in the various documents produced by the programme. Some aspects of ethics and EDII, such as increased opportunities for underrepresented groups of fellows, might take time to be realised. Thus, we will look for early signs and lead indicators of these impacts.	• Document review • Interviews with BR-UK and Centre-UB • Mid-line evaluation survey
PEQ7: To what extent and how are the posts embedded within UK government departments facilitating effective delivery across the programme, including facilitating the transfer of information and learning with each other, the investments and relevant departments?	Considering the novelty of this feature of the programme, and the many potential barriers to its effectiveness (e.g. cuts in the budget of government departments, staff turnover, changing political priorities, et cetera) it will be particularly important to monitor the implementation of the embedded posts. We will regularly consult with the post holders and the staff at GO-Science and Government Skills to understand the impacts that the embedded posts produce in terms of information exchange and promotion of BR use in government and allocate two of the longitudinal case studies for the evaluation (one per post) to this specific element.	• Longitudinal case studies on GO-Sciences and Government Skills embedded posts
PEQ8: How effective are management and governance arrangements of the investments within NCBR, and how have they influenced delivery? How have the investments monitored, learned from and improved delivery during the programme?	To answer this question, we will map the governance structure and monitoring arrangements of BR-UK and Centre-UB (including BR-UK's own evaluative efforts), analysing the documents outlining such arrangements and their outputs, and interviewing the Project Leads (PLs), to assess the data collected and their use to improve the processes. Similarly, we will engage with the various members of the consortia forming BR-UK and Centre-UB to understand the processes and interactions with the governance structure and potential lessons learned for improving them.	• Interviews with BR-UK and Centre-UB

4.2.3 *Final process evaluation*

While the interim evaluation will be the primary focus for process evaluation activities, we will continue to assess key process elements throughout the evaluation cycle. Annual update reports (to be issued in 2026 and 2027) and the final evaluation report (to be issued in 2028) will incorporate updated findings from ongoing process evaluation activities.

Although all major process evaluation components will be addressed in the interim phase, it will be essential to assess whether NCBR processes remain optimal beyond the programme's inception phases, as outcomes and impacts begin to materialise, and different processes gain importance.

We will continue to draw on the data sources used for the interim process evaluation, supplemented by targeted consultations with NCBR and ESRC staff to provide process updates. Additionally, an endline survey of key stakeholders and beneficiaries will be conducted as part of the final evaluation and will capture their perspectives on the effectiveness of key programme processes.

5 Impact Evaluation Framework

The impact evaluation will employ a theory-based mixed methods approach, grounded in the assessment of a programme-level ToC, as per the recommendations of HM Treasury's Magenta Book for the evaluation of complex programmes. It will integrate both quantitative and qualitative methods to provide a comprehensive understanding of the NCBR programme's impact. Integrating different methods will enhance the impact evaluation by leveraging the various strengths of different approaches to mitigate their individual limitations. For example, qualitative contribution analysis will be used to understand the causal links between NCBR activities and new applications of behavioural research in policy contexts and the private sector. This method is most appropriate for understanding complex, context-specific interactions and mechanisms, providing detailed insights into how and why certain outcomes occur. However, qualitative data alone may not fully capture the scale or generalisability of programme outcomes and impacts. Thus, survey data will also be used to quantify the outcomes of the programme, capturing a broad range of stakeholder perspectives. Finally, a value-for-money assessment will be conducted to evaluate the economic impact and efficiency of the NCBR investment. This will provide a financial perspective on programme impact. By combining these methods within a theory-based framework, we can ensure that the evaluation captures a holistic view of NCBR's impact in a rigorous manner. This chapter sets out the impact evaluation questions which will drive the analysis and describes our approach to addressing these questions.

5.1 Impact evaluation questions

As set out in the Theory of Change, the NCBR programme seeks to achieve impact in four areas. Based on this, the key impact evaluation questions to be covered by the evaluation are:

- **Impact EQ1:** To what extent has NCBR developed a national capability that effectively connects and convenes stakeholders across academia, the public sector, private sector and third sector to address key societal challenges?
- **Impact EQ2:** To what extent has NCBR increased capacity to embed and deliver effective BR across the public sector, private sector and third sector?
- **Impact EQ3:** To what extent has NCBR contributed to increasing the effectiveness of public policy interventions?
- **Impact EQ4:** To what extent has NCBR increased capability among UK and international researchers to conduct leading-edge multi- and interdisciplinary research incorporating BR?

5.2 Approach

The following table presents each evaluation question, along with commentary on the approach that will be employed to provide an answer in each case. The table also summarises (in the final column) the outcomes and indicators that will be used to provide supporting evidence for each question. Information on all indicators will be collected first at the baseline stage, to enable comparisons at the interim and final stages of the evaluation.

Importantly, the intended impacts of NCBR are expected to materialise toward the end of the programme's lifecycle and beyond its completion. For example, the duration of a doctoral programme (four years full-time) means that the evaluation is likely to conclude before the final cohort of doctoral researchers funded through Centre-UB complete their programme. Consequently, the interim evaluation and annual reports will primarily focus on tracking outcomes as precursors to impact. These outcomes will serve as key indicators of progress towards the longer-term impacts identified in the ToC. At the final evaluation stage, progress on these outcomes will be aggregated and synthesised to assess overall impacts, with a follow-up impact report produced one year after the completion of the programme to further capture impacts that unfold post-programme. This phased approach ensures that the evaluation accurately reflects both short-to-medium term achievements and the enduring value of the NCBR programme.

Table 2 Approach to addressing the impact evaluation questions

Question	Description of approach	Indicators
Impact EQ1: To what extent has NCBR developed a national capability that effectively connects and convenes stakeholders across academia, the public sector, the private sector and third sector to address key societal challenges?	This will be assessed by examining various indicators, following the impact pathways identified in the Theory of Change. Our approach will include both quantitative and qualitative methods: • We will draw on evidence from the evaluation survey, stakeholder interviews and case studies to assess changes in stakeholder awareness and recognition of BR-UK as an important and credible source for BR evidence needs [OC1], as well as improvements in the alignment of research priorities between BR researchers and users [OC2]. • To assess the relevance of BR output to UK stakeholder needs [OC9], we will draw on evidence from the evaluation survey, case studies and bibliometric analysis.	**Outcomes** [OC1],[OC2],[OC9] **Outputs** [O1],[O2],[O7],[O8],[O9],[O10],[O13]
Impact EQ2: To what extent has NCBR increased capacity to embed and deliver effective BR across the public sector, private sector and third sector?	This will be assessed by examining various indicators, following the impact pathways identified in the Theory of Change. Our approach will include both quantitative and qualitative methods: • To assess increases in public sector capacity to use BR evidence in local and national decision making [OC3], we will use programme monitoring data, the evaluation survey, stakeholder interviews and case studies. For this impact, we will focus on the capacity dimension of OC3. • We will draw on evidence from programme monitoring data, the evaluation survey and case studies to assess the development of a new generation of research leaders outside and within academia [OC5], as well as the upskilling of BR researchers and users [OC6]. • To assess increased collaboration between researchers and the public sector, private sector and third sector in the development and delivery of training [OC7], we will draw on evidence from the evaluation survey, stakeholder interviews and case studies.	**Outcomes** [OC3],[OC5],[OC6],[OC7] **Outputs** [O1],[O2],[O3],[O4],[O5],[O8],[O9],[O10],[O12]

Question	Description of approach	Indicators
Impact EQ3: To what extent has NCBR contributed to increasing the effectiveness of public policy interventions?	This will be assessed by examining various indicators, following the impact pathways identified in the Theory of Change. Our approach will include both quantitative and qualitative methods: • To assess increases in public sector capability and capacity to use BR evidence in local and national decision making [OC3] and improvements in the alignment of research priorities between BR researchers and users [OC2], we will use programme monitoring data, the evaluation survey, stakeholder interview and case studies. For this impact, we will focus on how these changes have contributed to concrete policy change. • To assess increased use of BR in public policy design and implementation [OC4], we will use programme monitoring data, the evaluation survey, stakeholder interviews, case studies and bibliometric analysis. • To assess the change in existing BR evidence synthesised [OC10], we will use programme monitoring data, the evaluation survey and stakeholder interviews.	**Outcomes** [OC2],[OC3],[OC4],[O10] **Outputs** [O5],[O6],[O7],[O8],[O13]
Impact EQ4: To what extent has NCBR increased capability among UK and international researchers to conduct leading-edge multi- and interdisciplinary research incorporating BR?	This will be assessed by examining various indicators, following the impact pathways identified in the Theory of Change. Our approach will include both quantitative and qualitative methods: • We will draw on evidence from programme monitoring data, the evaluation survey and case studies to assess the development of a new generation of research leaders outside and within academia [OC5], as well as the upskilling of BR researchers and users [OC6]. For this impact, we will focus on the BR researchers' dimension of OC6, rather than that of BR users. • To assess increases in collaboration across disciplines and sectors in contributing to BR [OC8], we will draw on evidence from bibliometric data, the evaluation survey, stakeholder interviews and case studies. • To assess improvements in access to and use of data among BR researchers and users [OC11], we will draw on evidence from administrative data (dataset downloads), the evaluation survey, stakeholder interviews and case studies.	**Outcomes** [OC5],[OC6],[OC8],[OC11] **Outputs** [O2],[O3],[O4],[O5],[O9],[O11],[O12]

5.3 Attribution and counterfactual analysis

To understand what would have happened in the absence of the NCBR Programme and what the contribution of the programme has been to any observed outcomes and impacts we will combine evidence from three approaches to attribution and counterfactual analysis. These are:

- Asking stakeholders to reflect on the extent to which changes in outcomes are linked to the programme through a survey and a programme of stakeholder interviews.
- Setting up counterfactuals or comparison groups.
- Conducting contribution analysis to systematically review and test the ToC.

5.3.1 *Quasi-experimental design and comparison groups*

In developing this evaluation plan, we have considered the potential to use quasi-experimental design (QED) and comparison groups to help assess additionality. Notably, many of the programme's outputs are publicly accessible, including online knowledge dissemination events, training materials, and open research tools. As these resources are available to the public, establishing counterfactuals or control groups is challenging. The table below outlines where some form of QED or comparison group is possible in this evaluation. A full assessment of the theoretical possibility and feasibility of QED or comparison groups for all outcomes is presented in Appendix A.

Table 3 Counterfactuals and comparison groups

Outcomes	QED and comparison groups
OC8. Broader range of disciplines and sectors collaborating and contributing to BR	• For this outcome, the construction of a quantitative counterfactual is theoretically possible, given that it is possible to use **bibliometric data to measure collaboration across disciplines and public-private partnership in BR publications**[13] across an extended time series and various country contexts. • A theoretically possible quasi-experimental approach would involve the construction of a synthetic control group using data from BR publications produced in comparable countries and to compare this to changes in BR collaboration in the UK. However, it is our assessment that this approach is unsuitable for this evaluation. As discussed above, many of the programme's outputs are publicly accessible, raising the possibility of 'contamination' to BR

[13] The bibliometric analysis will define and identify BR through a combination of conceptual and technical approaches. A conceptual definition will be developed in consultation with ESRC and may be supplemented by definitions from the academic literature. This definition will be empirically tested against research publication data, and its fit will be validated in collaboration with ESRC to ensure alignment with the programme's objectives. Technically, a word embeddings approach will be applied to analyse the titles and abstracts of research publications. This method allows for the identification and classification of papers as BR based on semantic similarity to the validated definition. The approach has successfully been used by the Technopolis Data Science Unit in previous classification for studies and evaluations.

Outcomes	QED and comparison groups
	researchers in comparable countries. Moreover, some NCBR initiatives involve international collaboration. • An **interrupted time series (ITS) analysis** is likely to be a feasible QED approach to assessing change over time in levels of collaboration in UK BR publications (comparing the pre-NCBR period to the post-NCBR period). • Another feasible comparison group is **ESRC-funded BR that is not supported by NCBR**. Levels of collaboration across disciplines in the two groups (NCBR supported research versus ESRC-funded BR that is not funded by NCBR) can be compared.
OC9. Increased relevance of BR output to UK stakeholder needs.	• For this outcome, the construction of a quantitative counterfactual is theoretically possible, given that it is possible to use **quantitative text analysis to measure BR uptake in government documents** across an extended time series and various country contexts. • A theoretically possible quasi-experimental approach could involve the construction of a synthetic control group using data from comparable English-speaking countries to assess changes in BR uptake in government documents. However, it is our assessment that this approach is unsuitable for this evaluation. The synthetic control method is best suited to the detection of large, immediate effects. Given the nature and scale of the NCBR investment, this approach is not considered appropriate. • An **interrupted time series (ITS) analysis** is likely to be feasible for assessing changes in BR uptake in government documents over time. This would involve analysing the full corpus of UK government documents (including those from devolved administrations) to identify trends in references to BR and BR concepts. Within this corpus, we can subset documents by specific policy areas in which NCBR has been active (e.g. health) to assess whether there has been an increased frequency of mentions of BR and associated concepts following the establishment of NCBR. • **Longitudinal comparison** for relevant indicators using the above-described stakeholder survey data can also be used.

5.3.2 Contribution analysis

Given the nature of the NCBR programme interventions, it will only be feasible to use counterfactuals to assess a small number of outcomes. Therefore, the evaluation will draw primarily on a theory-based evaluation approach. Specifically, it will use contribution analysis as a way of testing all the evidence collected to determine whether the ToC is valid explanation of change, and whether other external factors may have influenced outcomes more. This involves systematically reviewing the available evidence in a step-by-step process to determine whether the ToC is an adequate explanation for any observed changes. It can also help assess whether the observed outcomes can reasonably be attributed to NCBR or if other non-programme factors may have driven the changes. As part of this process, evidence from the counterfactuals and comparisons groups will be integrated to triangulate the data. The counterfactuals and comparisons groups will provide additional insight into specific outcomes, feeding into the broader contribution analysis rather than standing alone as a method for assessing NCBR's impact.

In terms of implementing the contribution analysis, for this evaluation framework we have defined the impact evaluation questions, constructed a programme ToC and identified the evidence to test the ToC. During the evaluation, we will identify contribution claims for the main elements of the ToC and then assess evidence on these claims. Contribution analysis will be applied specifically to qualitative data sources (namely, stakeholder interviews and case studies) as these data sources provide the nuanced insights necessary to understand the mechanisms through which the programme contributes to observed outcomes. For quantitative data, QED analysis will focus solely on establishing statistical significance or non-significance regarding selected programme outcomes and therefore does not require the same level of interpretative analysis as qualitative data. Similarly, administrative and programme monitoring data will primarily be used to identify trends and assess programme outputs over time, without necessitating a contribution analysis approach.

The results of tested contribution claims will be synthesised against the evaluation questions, contextually analysed, and refined to establish a well-reasoned case to explain the relative contribution made by the NCBR Programme, over and above alternative explanations. The use of contribution analysis and development of causal hypotheses will be an iterative process of testing the claims and refining them, will the final aim of building a convincing contribution story.

Our approach to synthesising evidence across tests is informed by Delahais & Toulemonde[14] who assess the strength of evidence in theory-based evaluation using the following four criteria:

- **Authoritative source** of the evidence identified and not disputed among differing authorities. For example, the results of a peer reviewed research paper that have not been disputed.
- **Signature** is when X (the intervention) causes Y and leaves a trace/signature that points unequivocally back to X. For example, the results of a rigorously implemented QED or qualitative approach to counterfactual analysis.
- **Convergent triangulation** of evidence across different independent sources, such as evaluation surveys, document review, programme monitoring data and stakeholder interviews.

[14] Delahais, T., & Toulemonde, J. (2017). Making rigorous causal claims in a real-life context: Has research contributed to sustainable forest management?. *Evaluation*, *23*(4), 370-388.

- **Consistent chronology** can be used to check if an assumed contribution is supported or refuted due to inconsistencies in timelines. For example, an increase in the number of BR training materials that are publicly available over time is consistent with the achievement of OC6 (Upskilled BR researchers and users).

This evaluation has been designed to systematically collect multiple lines of evidence for each outcome, ensuring a robust evidence base. Thus, this approach aims to support the strength of evidence required for convergent triangulation at minimum.

5.4 Value for money assessment

The value for money (VfM) assessment for the NCBR programme comprises two complementary components: the 4Es approach and the monetisation of selected economic impacts. The 4Es approach, guided by the National Audit Office's framework, will assess economy, efficiency, effectiveness, and equity, providing a broad evaluation of the programme's resource use and impact. The monetisation component will focus on estimating the economic value of specific, key impacts attributable to NCBR activities, particularly those that generate measurable benefits for UK public policy. Each of these components is described in greater detail below.

5.4.1 4Es approach

To assess VfM, we will utilise the National Audit Office's 4E VfM framework, which considers the economy, efficiency, effectiveness and equity of the programme under evaluation. Below we set out our approach to assessing each of these.

5.4.1.1 Economy

This involves assessing the extent to which inputs are being purchased appropriately. We will assess this primarily through interviews with project management staff at BR-UK and Centre-UB. We will use these interviews to establish the extent to which the programme has been able to leverage additional in-kind or financial support from other sources following receipt of ESRC investment. The NCBR investments will be achieving economy if they have secured either financial or in-kind support from others to support programme activities.

5.4.1.2 Efficiency

This involves assessing how efficiently an intervention is converting inputs and activities into outputs. We will carry out value for money assessments on selected project outputs. These will be selected through consultation with ESRC. This exercise will involve analysing programme monitoring data and calculating the cost per selected output (e.g. comparable PhD Studentships), and then benchmarking this against comparator programmes elsewhere. If NCBR projects have comparable or lower delivery costs, this will indicate programme efficiency.

5.4.1.3 Effectiveness

This involves assessing the quality of an intervention by determining how well outputs are converted into outcomes and impacts. The contribution analysis conducted for the evaluation will provide insight into programme effectiveness. If our contribution analysis tests show there is strong evidence to support hypotheses about the ToC being an accurate description of how observations have occurred, then it will in turn demonstrate that the NCBR programme is the reason behind any successful conversion of outputs to outcomes and impacts. Likewise, effectiveness will also be shown if the evidence to refute ToC causal hypotheses is weak.

5.4.1.4 Equity

This assesses the degree to which the results of an intervention are equitably distributed. There are two ways we will assess this. First, we will conduct an analysis of programme monitoring data to determine whether the interventions have been implemented in a manner that reaches diverse groups. This will involve assessing the demographic distribution of programme beneficiaries, including gender and ethnicity, to identify any disparities in access or participation. We will also examine qualitatively how the programme's approach to ethics and EDII translated into the production of more inclusive behavioural research and/or behavioural research applications that promote more equitable socioeconomic outcomes.

5.4.2 Monetisation of selected economic impacts

Regarding economic impact, it is important to consider that NCBR's monetisable outcomes will likely be concentrated in the application of behavioural research to UK public policy and practice. Monetising (or quantifying) the effects of science and research in public policy and practice is a complex task. There are different ways in which research influences public policy and practice. Nutley et al[15] provide a useful conceptual framework on the different types of research utilisation, which include instrumental use (changes in behaviour and practice), conceptual use (changes in levels of knowledge, understanding and attitude), mobilisation of support (findings used as a political tool and to legitimate particular courses of action or inaction), and wider influence (changes beyond the policy areas analysed). It is difficult to assign a monetary value to such impacts. In this context, and in line with HMT Magenta Book guidance, NCBR's economic impact is best estimated through a two-step process that combines qualitative and quantitative approaches.

- First, up to three key economic impacts will be qualitatively identified at the final evaluation stage through a mix of stakeholder consultation, qualitative research (interviews and case studies) and document review. By way of example, such impacts may include the introduction of a new public policy or the implementation of a new behavioural intervention as a result of NCBR activities that has led to more efficient, cost saving processes (e.g. reduction in high-speed driving).
- Second, for each of these key impacts, scenario modelling of outcomes will be conducted to quantify the associated savings made by the public sector and society. This will involve mapping the changes introduced through each impact and estimating the costs and savings associated with these changes. Costings will be based on estimates derived from interviewees with expertise in implementing the impact in question. Demonstrating the economic benefit of these impacts requires a set of key assumptions about how solutions have changed user outcomes because of the new innovation. Changes in inputs and outputs for users will typically come in the form of costs avoided through reduced labour, time or other resources needed to achieve an outcome that is as good (or better) than could be achieved before the innovation was implemented. This exercise will result in a return-on-investment figure for each of the studied impacts.

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[15] Nutley, S. M., Walter, I., & Davies, H. T. (2007). What does it mean to 'use' research evidence?. In *Using evidence* (pp. 33-60). Policy Press.

6 Data sources

Drawing on the process and impact evaluation frameworks outlined above, the evaluation team will design a suite of data collection tools to gather the evidence needed to address the evaluation questions. Each data collection method to be employed in the evaluation is described below. Development of the detailed data collection tools will proceed following the finalisation of the evaluation framework.

6.1 Document review (baseline, interim and final evaluation)

A document review will inform all stages of the evaluation. Building on the preliminary work conducted during this scoping phase, at the beginning of each phase we will look for newly published resources and update our document list. Wherever possible, we will make use of existing information and data held by ESRC, BR-UK and Centre-UB. At this stage, we have identified the following key sources, which will feed into both the process and impact evaluations:

- The NCBR Strategic Outline Case, call specifications and spokes strategy, which provide information on the policy context and need for the intervention.
- Programme documents, which include the BR-UK and Centre-UB cases for support, job descriptions for the embedded posts, Memorandum of Understanding between BR-UK and Centre-UB, BR-UK Theory of Change and M&E plan, delivery partner workplans, delivery partner research outputs (such as those from the capability scoping study that BR-UK conducted in 2024), et cetera. These documents will support the understanding of the programme and its priorities and serve as indicators that expected outputs and outcomes have been achieved.
- Programme management information, which includes periodic reporting from the NCBR delivery partners presenting progress and monitoring data. This will contribute to assessing progress on the implementation of activities and achievement of outputs.

6.2 Longitudinal survey (baseline, interim and final evaluation)

We will carry out three rounds of surveys, at the three different stages of the study. The surveys will be directed to:

- BR-UK participants (Directors, Co-Investigators, Work Package Leads, Theme Leads, Fellows, researchers, representatives of partner organisations).
- Centre-UB participants (Doctoral Researchers, Fellows, representatives of partner organisations, external participants in Centre-UB training).
- Relevant policymakers and policy practitioners from across the UK (including members of the cross-government behavioural insights network).
- Stakeholders from the private and third sectors, including members of the BR-UK network and participants in Centre-UB activities and training. Given that the engagement of these stakeholders by BR-UK and Centre-UB will commence post-baseline, precluding the availability of their contact details, they will not be directly targeted in the baseline survey, but only in the successive phases. However, the survey link for the baseline will be made publicly available on BR-UK website, to potentially attract relevant stakeholders interested in the topic. We do not expect a large number of respondents to answer the survey via this route, so we will make sure to ask retrospective questions on the situation prior to the NCBR programme in the interim and final evaluation surveys.

The population size is estimated to range from 500-600 individuals. This number is approximate, as it may fluctuate over time based on factors such as the size of research teams awarded BR-UK funding, level of demand for external Centre-UB training, and changes in the number of relevant policymakers and policy practitioners. We will conduct the survey online so that it is possible to scale the sample up to 600 individuals using the available resources.

To achieve a sufficient level of representativeness, we aim to achieve a response rate of between 30-40 percent. This accounts for the expectation that approximately half of the target population is comprised of members of the cross-government behavioural insights network, who are less likely to engage with the survey given that they are not primary NCBR stakeholders. We will take a number of steps to ensure high response rate, including: (i) introductory letter from the NCBR delivery partner or cross-government behavioural insights network, as relevant; (ii) good design (user-friendly, clear, concise and intuitive to navigate); (iii) piloting of survey questionnaire before wider roll-out and modification as necessary, (iv) building in sufficient time for response.

The questionnaire will focus on capturing relevant elements of the ToC (in line with the evaluation questions and metrics). We will seek to keep the questionnaire as short as possible with the great majority of questions using Likert scales to facilitate analysis. For the mid-line surveys that will feed into the interim evaluation, we will incorporate a short survey module to gather feedback on NCBR processes, directed at the primary stakeholder groups connected to NCBR. This will feature a short set of closed questions (maximum of ten survey items), allowing us to obtain a more representative assessment of which processes worked well for which stakeholder groups.

6.3 Stakeholder interviews (baseline, interim and final evaluation)

We will carry out five rounds of semi-structured interviews with key stakeholders across the life of the evaluation. We will conduct approximately 100 interviews that are primarily focused on the impact evaluation, supplemented by an additional 20 interviews specifically designed to inform the process evaluation. Interviews will:

- **Inform the process evaluation** by examining how the programme's design, governance, and operational processes are functioning in practice.
- **Capture programme effects** and explore why certain output, outcome and impact patterns were achieved, as well as identifying any barriers or enabling factors.
- **Support the case studies**, which are described in further detail in Section 6.4.
- **Explore the wider effects of NCBR on stakeholders** who are not directly involved in the programme, and of the programme overall on external stakeholders.

We will ensure that we interview individuals from various stages of the effect chain, from awardees to end users and practitioners (or, in ToC terms, from outputs to outcomes to final impacts). This will enable us to test all parts of the ToC. To ensure we reach saturation points for all groups. Table 4 and Table 5 below present the interview sampling frame and an overview of the interview programme for each round of data collection.

Table 4 Interview sampling frame

Target group	Sampling	No. of interviews	Stages
ESRC	Key members of ESRC staff have already been engaged during the scoping phase, including Louise Richards, Claudia Viggiano and Chelsea Cinquegrani. In addition, we will interview members of the ESRC leadership team for the final evaluation report.	16-18	• Interim evaluation • Annual evaluation report 2026 • Annual evaluation report 2027 • Final evaluation report • Follow-up impact report
BR-UK	This will involve interviews with members of the BR-UK leadership and operational teams, as well as BR-UK Co-Investigators, Work Package/ Theme Leads and awardees.	40-45	• Interim evaluation • Annual evaluation report 2026 • Annual evaluation report 2027 • Final evaluation report • Follow-up impact report
Centre-UB	This will involve interviews with members of the Centre-UB leadership and operational teams, as well as awardees and representatives of research partner organisations.	30-35	• Interim evaluation • Annual evaluation report 2026 • Annual evaluation report 2027 • Final evaluation report • Follow-up impact report
GO-Science	This will involve interviewing the embedded postholder and her/his line manager within GO-Science. We will additionally identify a member of the GO-Science leadership team to interview for the final evaluation.	9	• Interim evaluation • Annual evaluation report 2026 • Annual evaluation report 2027 • Final evaluation report
Government Skills	This will involve interviewing the embedded postholder and her/his line manager within Government Skills. We will additionally identify a member of the Government Skills leadership team to interview for the final evaluation.	9	• Interim evaluation • Annual evaluation report 2026 • Annual evaluation report 2027 • Final evaluation report
External stakeholders	We will select among the key organisations targeted by the engagement activities of BR-UK and Centre-UB including from the public, private and third sectors.	10	• Final evaluation report • Follow-up impact report

Table 5 Interview programme by round of data collection

	Process interviews	Impact-focused interviews						Total
		ESRC	BR-UK	Centre-UB	GO-Science	Government Skills	External stakeholders	
Interim evaluation	20	3	6	4	2	2	-	**37**
Annual evaluation report 2026	-	3	6	4	2	2	-	**17**
Annual evaluation report 2027	-	3	6	4	2	2	-	**17**
Final evaluation report	-	4-6	6-11	4-9	3	3	7-8	**32-35**
Follow-up impact report	-	3	6	4	-	-	2-3	**15-16**

Custom interview guides will be developed for each different stage. During Stage 2, the focus of the interviews will mainly be the process evaluation, but we will also discuss early signs of impact. If necessary, a small number of short interviews with external stakeholders may additionally be conducted to address any evidence gaps. Interviews during Stage 3 will cover both process and impact evaluation questions.

6.4 Case studies (baseline, interim and final evaluation)

It will be important for the case studies to represent different types of NCBR activities across both the programme and hub and spoke(s). We therefore propose to develop 11 case studies, as follows:

- **Six longitudinal case studies** covering the following aspects of NCBR:
  - BR-UK network building
  - BR-UK rapid systematic review function and rapid response research function
  - Ask BR-UK function
  - Centre-UB national training strategy
  - GO-Science embedded post
  - Government Skills embedded post

  These six case studies have been selected to allow the evaluation team to test key pathways to impact identified in the NCBR Theory of Change, with a particular focus on pathways that are challenging to quantify.
- **Five endline impact case studies** focused on selected high-impact research projects conducted by NCBR awardees, across BR-UK and Centre-UB. These impact case studies will provide a snapshot of programme effectiveness and capture specific instances where NCBR activities have led to measurable change.

The cases will be written up in a 3–4-page presentation using a common template. The template will be based on the ESRC guide for case studies and adapted to align with the specific needs and objectives of this evaluation, ensuring it reflects the focus and context of the NCBR programme. First drafts will be shared with the primary interviewee for validation and, if needed, elaboration. The study team will corroborate self-reported achievements by crossreferencing publications and other documentary evidence. Each case study will contain a table that will allow us to understand the robustness of the evidence and reflect on claims of additionality and critical success factors.

6.5 Programme monitoring and administrative data

Throughout the impact evaluation, we will analyse relevant NCBR monitoring data to assess performance related to programme outputs and outcomes. The primary purpose of this analysis is to systematically evaluate the quantifiable outputs generated by the NCBR programme, including metrics such as number of publications and number of event attendees. This data will be extracted from the NCBR delivery partners' periodic reporting, as discussed in Section 6.1. To assess the reach and utilisation of NCBR-produced resources, we will also draw on administrative data that provides download statistics for relevant datasets, research tools, and research software.

7 Implementation plan

7.1 Timeline and milestones

Upon sign-off of this evaluation framework, the evaluation will proceed with baseline measurement. The remaining stages of the evaluation will then proceed as shown in Table 6, alongside the key deliverable for each stage.

Table 6 Main milestones for the remaining stages of the evaluations

Dates	Stages and core deliverables
December 2024 – March 2025	Stage 1 – Baseline measurement
February 2025	Baseline report for review
March 2025	Baseline report for acceptance
March 2025 – December 2025	Stage 2 – Interim evaluation
October 2025	Interim report for review
December 2025	Interim report for acceptance
January 2026 – June 2029	Stage 3 – Final evaluation
June 2026	Annual evaluation report - 2026
June 2027	Annual evaluation report - 2027
June 2028	Final evaluation report for review
August 2028	Final evaluation report for acceptance
June 2029	Follow-up impact report for review
July 2029	Follow-up impact report for acceptance

In addition, the evaluation will provide a presentation of key findings and messages at the end of each stage. The project plan and evaluation framework will also be reviewed and updated (as necessary) at the end of the baseline and interim stages.

7.2 Tasks

The forthcoming activities of the evaluation involve the following core tasks:

7.2.1 Stage 1: Baseline Measurement

Task 1: Baseline measurement. Based on the evaluation framework, we will compile a baseline using primary data (stakeholder survey) and secondary data (programme monitoring data). This task involves both data collection and analysis, resulting in measurement of a baseline and ending in sign-off by the client. This baseline will feed into the evaluation protocol for the subsequent impact evaluation.

7.2.2 Stage 2: Interim Evaluation

Task 2: Process mapping. A critical initial component of the process evaluation will be a comprehensive process mapping exercise. The process mapping exercise will be guided by the process evaluation questions set out in Chapter 4. The resulting process maps for programme design, governance, administration of hub and spokes, stakeholder engagement, publicity, assessment process and award management and monitoring will serve as illustrative focal points in our evaluation report.

Task 3: Process interviews (x20). We will conduct a programme of interviews with individuals connected to each of the NCBR processes, as outlined in Chapter 4.

Task 4: Summary of early process findings and presentation to the Programme Board. As requested in the ITT, we will present preliminary findings to the NCBR Programme Board, based on the tasks listed above. These findings will be based on the process mapping and interviews, with subsequent activities informing the formal interim report in December 2025. This presentation will also be an opportunity to present lessons learned emerging from the analysis and potential recommendations to inform the future delivery of the programme.

Task 5: Online survey with stakeholders. We will run a second wave of the stakeholder survey outlined in Task 1. The survey will be a condensed version of the first wave, focused on solely on questions pertinent to Stage 2 of the evaluation.

Task 6: Longitudinal case studies. We will prepare the first iteration the longitudinal impact case studies described in Section 6.4, tracking specific aspects of NCBR investments throughout its lifetime.

Task 7: Early evaluation of outputs, outcomes and impacts. As part of Stage 2, we will conduct an initial assessment of outputs and outcomes, drawing from the different data collection exercises listed above. We note it is possible that not all elements of NCBR will be in a position to produce outputs yet, so this will likely not be a comprehensive assessment. Nevertheless, first findings will be important in order to obtain an initial insight into whether the early stages of the ToC effect chain are occurring as intended. In addition, we will gather preliminary insights on value for money, focusing on the dimensions of economy, efficiency, effectiveness, and equity, as described in section 5.4.1. This will be achieved through a dedicated module incorporated into selected process evaluation interviews, targeted only at stakeholders with direct knowledge or involvement relevant to VfM considerations. This early exploration will serve as a foundation for more detailed analysis of VfM in later stages of the evaluation.

7.2.3 Stage 3: Final Evaluation

Task 8: Inception meeting. We will launch Stage 3 with an inception meeting to discuss new developments in the programme and discuss our proposed approach to revising and updating the evaluation framework. We will also use this meeting to discuss the Stage 3 workplan, timescales and deliverables; additional data and documentation of relevance to the study; and project management approach.

Task 9: Update of the evaluation framework. At the start of Stage 3 of this study, we will reappraise the activities conducted by NCBR thus far and the envisaged trajectory from that point onwards, to ensure that these considerations feed into the finalised impact assessment method. The evaluation framework is intended to be iterative and to evolve as we advance through the different stages of the evaluation and as more evidence becomes available. We will hold a validation workshop with ESRC and NCBR to update and finalise all methodological components. At this stage, there will be options to either introduce or substitute (depending on scope) additional small methodological components, should these be necessitated by the evolved nature of impact pathways and anticipated impact types.

Task 10: Monitoring data analysis (x3 rounds). Throughout the impact evaluation, we will analyse relevant NCBR monitoring data to assess performance related to programme outputs and outcomes. In addition to quantitative outputs, we will process and analyse qualitative material and reporting related to the programme's impact. This will help contextualise the quantitative data, offering a more nuanced understanding of NCBR programme impact.

Task 11: Update of longitudinal case studies (x3 rounds). Throughout the Stage 3 impact evaluation, we will continue to develop the longitudinal case studies described in Section 6.4.

Task 12: Updated process evaluation (x3 rounds). Throughout Stage 3, we will continue to conduct an element of process evaluation. We will draw on the Stage 3 methodological components noted so far, supplemented by interviews with NCBR/ESRC staff to provide updates to the process evaluation with each annual Stage 3 report.

Task 13: Endline interview programme. We will conduct a programme of stakeholder interviews to research the extent of NCBR's effect and its funded awards. This will include interviews related to the VfM assessment.

Task 14: Endline impact case studies. We will conduct a series of endline impact case studies, as described in Section 6.4. These case studies are specifically designed to capture impacts that begin to materialise towards the later stages of the programme lifecycle. These case studies will be conducted during the first quarter of 2028 to feed into the Final Evaluation Report.

Task 15: Endline survey. We will run a third wave of the stakeholder survey outlined in Tasks 1 and 5. This survey will be fielded during the first quarter of 2028 in order to feed into the Final Evaluation Report.

Task 16: Synthesis and evaluation of impact (final evaluation). We will undertake a comprehensive synthesis and assessment of the programme's impact, incorporating quasi-experimental design (QED) analysis, value for money (VfM) assessment, and contribution analysis. This task involves triangulating findings from all data sources. The results of this synthesis will be presented in the Final Evaluation Report. We will also present the findings of the Final Evaluation Report to the NCBR Programme Board.

Task 17: Follow-up impact report. The follow-up impact report will update and refine the findings of the Final Evaluation Report. Where possible, this will involve updating the quantitative findings of the report (for example, analysis of new monitoring data). It will also involve additional stakeholder interviews to capture longer-term effects that had not fully materialised in the initial evaluation phase. By incorporating these new data points, we can enhance the robustness and relevance of the evaluation findings.

Appendix A Feasibility of QED and comparison groups by ToC outcome

The table below presents the feasibility of QED and comparison groups of ToC outcomes, the outcomes have been grouped by evaluation approach.

Table 7 Feasibility of QED and comparison groups by ToC outcome

Outcomes	QED and comparison groups
OC1. Stakeholder awareness and recognition of BR-UK as an important and credible source for BR evidence needs. **OC2.** Improved alignment of research priorities between BR researchers and users.	• For these outcomes, there is no measurable, comparable unit at the country level to serve as a control group in a QED. • It is possible to conduct **a longitudinal comparison**, measuring changes over time in: – Stakeholder awareness and recognition of BR-UK. – Stakeholder perceptions around the UK's BR needs. – Stakeholder perceptions around BR research priorities. • This will involve conducting a stakeholder survey at baseline, midline and endline.
OC3. Increased capability and capacity within the public sector to use BR evidence in local and national decision making. **OC11. Improved access to and use of data among BR researchers and users**	• For this outcome, there is no measurable, comparable unit at the country level to serve as a control group in a QED. • It is possible to adopt **a longitudinal comparison**, measuring changes over time in: – Number of public sector officials receiving NCBR support (e.g. training, use of NCBR tools, evidence syntheses) and the associated increases in their capabilities. – Access to and use of key publicly available BR datasets. – This will involve the use of administrative data, programme monitoring data and the above-described stakeholder survey data.
OC4. Increased use of BR in public policy design and implementation. **OC5.** New generation of applied BR leaders outside and within academia. **OC6.** Upskilled BR researchers and users. **OC7.** Increased collaboration between researchers and the public sector, private sector and third sector in the	• For these outcomes, there is no measurable, comparable unit at the country level to serve as a control group in a QED. • It is possible to adopt **a longitudinal comparison**, measuring changes over time in: – Number of policy-relevant NCBR outputs (e.g. commissioned policy research, policy briefings, evidence syntheses) and associated changes in use of BR in public policy design and implementation. – The number of BR researchers and users receiving NCBR support (e.g. PhD studentships, fellowships, research grants, training) and the associated changes in their skills and career paths.

Outcomes	QED and comparison groups
development and delivery of training. **OC10.** Increase in existing BR evidence synthesised.	– The level of inter-sectoral collaboration between stakeholders in the development and delivery of training. – This will involve the use of programme monitoring data and the above-described stakeholder survey data.
OC8. Broader range of disciplines and sectors collaborating and contributing to BR	• For this outcome, the construction of a quantitative counterfactual is theoretically possible, given that it is possible to use **bibliometric data to measure collaboration across disciplines and public-private partnership in BR publications** across an extended time series and various country contexts. • A theoretically possible quasi-experimental approach would involve the construction of a synthetic control group using data from BR publications produced in comparable countries and to compare this to changes in BR collaboration in the UK. However, it is our assessment that this approach is unsuitable for this evaluation. As discussed above, many of the programme's outputs are publicly accessible, raising the possibility of 'contamination' to BR researchers in comparable countries. Moreover, some NCBR initiatives involve international collaboration. • An **interrupted time series (ITS) analysis** is likely to be a feasible QED approach to assessing change over time in BR collaboration. • Another feasible comparison group is **ESRC-funded BR that is not funded by NCBR**. Levels of collaboration across disciplines in the two groups can be compared. • **Longitudinal comparison** for relevant indicators using the above-described stakeholder survey data can also be used.
OC9. Increased relevance of BR output to UK stakeholder needs.	• For this outcome, the construction of a quantitative counterfactual is theoretically possible, given that it is possible to use **quantitative text analysis to measure BR uptake in government documents** across an extended time series and various country contexts. • A theoretically possible quasi-experimental approach could involve the construction of a synthetic control group using data from comparable English-speaking countries to assess changes in BR uptake in government documents. However, it is our assessment that this approach is unsuitable for this evaluation. The synthetic control method is best suited to the detection of large, immediate effects. Given the nature and scale of the NCBR investment, this approach is not considered appropriate. • An **interrupted time series (ITS) analysis** is likely to be feasible for assessing changes in BR uptake in government documents over time.

Outcomes	QED and comparison groups
	• **Longitudinal comparison** for relevant indicators using the above-described stakeholder survey data can also be used.

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