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Innovate UK Contracts for Innovation (formerly SBRI)

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This briefing note provides details on Innovate UK Contracts for Innovation (formerly the Small Business Research Initiative or SBRI) including scope, competitions and case studies from Northern Ireland and the rest of the UK.

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Introduction

This briefing note provides details on Innovate UK Contracts for Innovation (formerly the Small Business Research Initiative or SBRI) including scope, competitions and case studies from Northern Ireland and the rest of the UK.

1 Background

The [Innovate UK Contracts for Innovation](#) scheme, previously known as the Small Business Research Initiative or SBRI, is a UK-wide programme aimed at supporting the public sector to address persistent challenges. This initiative allows the public sector to partner with innovative organisations to explore inventive solutions. In turn, Contracts for Innovation offers organisations the opportunity to secure funding and work with the public sector to develop new technologies¹. Under this scheme, organisations can apply for funding between £50,000 and £10 million². Since its inception in 2001, Contracts for Innovation has awarded over £1.5 billion in funding³.

As of 13 May 2024, the SBRI has been renamed as Innovate UK Contracts for Innovation⁴. Contracts for Innovation is under the purview of [Innovate UK](#), the UK's innovation agency and department of [UK Research and Innovation](#) (UKRI)⁵.

The SBRI/Contracts for Innovation was established in 2001 in response to the EU's 'pre-commercial procurement' mechanism, which targets small to mid-size organisations⁶. The initiative is modelled after the well-established Small

¹ [Innovate UK Contracts for Innovation](#), UKRI, 13 May 2024, Accessed: 17 May 2024

² Steer Economic Development and Innovate UK (2022) Giving the public sector the edge: How the Small Business Research Initiative has driven public sector innovation. [UKRI-130522-SBRIDrivingPublicSectorInnovation-FINAL.pdf](#), p3

³ Ibid

⁴ [Innovate UK Contracts for Innovation](#), UKRI, 13 May 2024, Accessed: 17 May 2024

⁵ [Procuring tomorrow's solutions today](#), Innovate UK Business Connect, (n.d), Accessed: 17 May 2024

⁶ [Pre-Commercial Procurement](#), European Commission: Research and innovation, (n.d), Accessed: 17 May 2024

Business Innovation Research (SBIR) programme, which has been in place in the USA since 1982⁷.

Due to the name change, throughout this briefing note, the SBIRI will be referred to as Innovate UK Contracts for Innovation/Contracts for Innovation.

Innovate UK Contracts for Innovation aim to⁸:

- “Stimulate innovations by supporting businesses to develop and commercialise new technology-based products and solutions for public sector organisations
- Provide government departments and their agencies with new, cost-effective, technical, and scientific options and solutions.”

1.1 Scope and Participants

The scope for Contracts for Innovation is extensive, providing support to a wide range of public sector bodies. It is flexible and adaptable to a broad range of challenges. As of May 2022, over 100 UK public sector organisations had used Contracts for Innovation including the Ministry of Defence, NHS and Department for Transport⁹. Contracts for Innovation is open to organisations of all sizes and approaches, including start-ups, small to mid-size businesses and large organisations, as well as not-for-profits and charities¹⁰.

⁷ [About](#), SBIR, (n.d), Accessed: 20 May 2024

⁸ Steer Economic Development (2022) [An Evaluation of the Small Business Research Initiative \(ukri.org\)](#), p5

⁹ [Innovate UK Contracts for Innovation](#), UKRI, 13 May 2024

¹⁰ Ibid

Key participant statistics¹¹:

- 85% of applicants were private companies, with 63% being small firms
- 36% of competitions were run by the Ministry of Defence and the Defence and Security Accelerator
- 20% of competitions were accounted for by devolved administrations
- 10% of competitions were accounted for by the NHS
- 55% of applicants were from London and the South East of England
- 9% of applicants were from academia
- 2% of applicants were from not-for-profits

1.2 Competitions

Innovative organisations are selected for funding through Contracts for Innovation competitions. From 2008 to 2020, these competitions awarded £788 million in funding¹². The competition's focus is determined by the public sector challenge owner, and organisations apply for a share of the funding allocated to the competition. For example, in 2022, a Contracts for Innovation competition seeking 'Open Digital Solutions for Net Zero Energy' allowed applicants to apply for a share of £1.2 million¹³. After a written application is reviewed and scored

¹¹ Steer Economic Development and Innovate UK (2022) Giving the public sector the edge: How the Small Business Research Initiative has driven public sector innovation. [UKRI-130522-SBRIDrivingPublicSectorInnovation-FINAL.pdf](#), p3

¹² Steer Economic Development and Innovate UK (2022) Giving the public sector the edge: How the Small Business Research Initiative has driven public sector innovation. [UKRI-130522-SBRIDrivingPublicSectorInnovation-FINAL.pdf](#), p3

¹³ [Competition overview - SBRI Competition – Open Digital Solutions for Net Zero Energy](#), Innovation Funding Service, 31 January 2022, Accessed: 17 May 2024

by a panel of assessors, the short-listed applicants are interviewed from which successful candidates are selected and finances allocated. The majority of competitions fall within the three phase framework¹⁴.

1.2.1 Phase 1

Phase 1 focuses on funding research and development (R&D) critical to proving the feasibility of the project. This is a short phase (typically 6-9 months) for developing a proof of concept on a scientific, technical and commercial level¹⁵. On average, 25% of organisations funded in Phase 1 competitions are shortlisted to Phase 2¹⁶.

1.2.2 Phase 2

Phase 2 focuses on developing prototypes. Projects that successfully enter Phase 2 competitions have demonstrated project feasibility and proof of concept. In Phase 2 funding is allocated for key R&D necessary to produce a commercial product or prototype, which can be developed further for manufacturing and marketing¹⁷. On average, Phase 2 organisations are awarded £492,000 in funding¹⁸. In total, £420 million has been awarded across 854 participating organisations¹⁹.

¹⁴ Steer Economic Development (2022) [An Evaluation of the Small Business Research Initiative \(ukri.org\)](#), p6

¹⁵ [SBRINI Information for Businesses](#), Matrix, (n.d), Accessed: 20 May 2024

¹⁶ Steer Economic Development and Innovate UK (2022) Giving the public sector the edge: How the Small Business Research Initiative has driven public sector innovation. [UKRI-130522-SBRIDrivingPublicSectorInnovation-FINAL.pdf](#), p3

¹⁷ Steer Economic Development (2022) [An Evaluation of the Small Business Research Initiative \(ukri.org\)](#), p18

¹⁸ Steer Economic Development and Innovate UK (2022) Giving the public sector the edge: How the Small Business Research Initiative has driven public sector innovation. [UKRI-130522-SBRIDrivingPublicSectorInnovation-FINAL.pdf](#), p3

¹⁹ Ibid

1.2.3 Phase 3

Phase 3 competitions are very limited in number²⁰. They invite organisations with pre-commercial innovations. Phase 3 competitions are not necessarily subsequent to Phase 1 and 2 competitions and can be standalone. For example, a previous Phase 3 competition focused on ‘Enhanced Clean Air Innovation Trials’. In this competition, applicants could apply for a share of £800,000²¹. The intention of this funding is for demonstration, testing and validation of pre-commercial innovations to support their journey to commercialisation²².

1.3 Impacts

In 2022, an [independent report](#) assessed the impact and effectiveness of Contracts for Innovation on firms and the public sector.

The evaluation revealed that when the public sector embraced and championed Contracts for Innovation, it led to the promotion of innovation in tackling public sector challenges²³. The report also highlighted that the initiative resulted in ‘improved public services, reduced public sector costs and increased societal benefits’²⁴. Furthermore, firms felt empowered to take risks and push the boundaries in their innovations and grow their businesses. The evaluation emphasised that Contracts for Innovation produced ‘win-win’ outcomes for both the public sector and firms²⁵.

In its recommendations, the report called for a more intensive and extensive adoption of the initiative across the public sector. It also suggested greater

²⁰ Steer Economic Development (2022) [An Evaluation of the Small Business Research Initiative \(ukri.org\)](#), p6

²¹ [SBRI Phase 3: Enhanced Clean Air Innovation Trials](#), Innovation Funding Service, 14 February 2024, Accessed: 17 May 2024

²² Steer Economic Development (2022) [An Evaluation of the Small Business Research Initiative \(ukri.org\)](#), p18

²³ Steer Economic Development (2022) [An Evaluation of the Small Business Research Initiative \(ukri.org\)](#), p5

²⁴ Ibid

²⁵ Ibid

leadership from Innovate UK and better data regarding the impacts of the scheme²⁶.

The 2022 evaluation identified the following impacts of Contracts for Innovation²⁷:

- **“Improved health outcomes** – spanning accelerated and more effective diagnosis, improved clinical outcomes as well as wider public health impacts;
- **Environmental sustainability** – supporting net zero ambitions through: deployment of energy efficient technologies; catalysis of more environmentally sustainable behaviour change; and addressing wider environmental issues such as pollution and congestion;
- **Addressing inequalities & improving quality of life** – by improving the quality of services and/or opening up access to these improved services to disadvantaged groups;
- **COVID-19 response & recovery** – generating innovative solutions to aid pandemic response and recovery and supporting wider economic and societal resilience;
- **Animal welfare** – primarily through the NC3R²⁸ initiatives, reducing the need for and scale of animal testing; and
- **National security & public safety** – modernising and strengthening the armed forces, through DASA²⁹’s SBRI initiatives, and also through initiatives designed to improve emergency services.”

²⁶ Steer Economic Development (2022) [An Evaluation of the Small Business Research Initiative \(ukri.org\)](#), p9

²⁷ Ibid

²⁸ [NC3R](#) is a UK-based scientific organisation working to ‘replace, refine and reduce’ the use of animals in research.

²⁹ [DASA](#) is the UK’s Defence and Security Accelerator. DASA is a cross-government team pursuing innovative solutions to support UK Defence and Security.

1.3.1 Organisation level Impacts

The evaluation states that organisations participating in Contracts for Innovation competitions benefit from positive impacts on their performance. The scheme allows organisations to ‘push the boundaries of risk and uncertainty’ in all stages of the product development beyond what they would normally be able to achieve³⁰. Furthermore, the majority of organisations involved in the report said the scheme allowed them ‘to explore and develop innovation in ways that would not otherwise have happened’³¹.

The evaluation also concluded that not all projects funded by Contracts for Innovation are successful. However, even in cases where the product/service did not reach commercialisation or procurement, the impact on the business performance was ‘substantial’³².

“[Contracts for Innovation] funding induced an additional and cumulative increase in turnover for businesses of over £1bn³³”

Some main benefits to organisations of the scheme were reported as³⁴:

- Allows organisations to ‘push the boundaries of risk and uncertainty’ beyond what they would normally be able to do
- More staff can be hired or retained within the organisation
- Provides a route to procurement and commercialisation
- Access to new markets
- Increased collaborative relationships with public sector and academia
- Increased publicity and recognition

³⁰ Steer Economic Development (2022) [An Evaluation of the Small Business Research Initiative \(ukri.org\)](https://www.ukri.org), p6

³¹ Ibid

³² Steer Economic Development (2022) [An Evaluation of the Small Business Research Initiative \(ukri.org\)](https://www.ukri.org), p6

³³ Ibid

³⁴ Ibid

1.3.2 Public Sector Impacts

The impacts of schemes such as Contracts for Innovation are often difficult to quantify in the public sector. This is because they are often long-term and have limited monitoring. In the 2022 report, assessing the impact on the public sector was difficult as most departments and agencies were unable to provide data³⁵.

However, there is evidence suggesting positive benefits to the public sector particularly in improved customer outcomes. The report indicates improved health outcomes have been achieved through 'higher quality and/or better targeted services' which could have led to reduced demand for other public services³⁶. SBRI Healthcare predicts 'future cumulative cost savings of £1.2 to £1.8 billion in ten years'³⁷. An example of this is the COVID-19 Speed Cleaning Ambulances competition in Wales (see section 5.2).

It was concluded that some of the key benefits to the public sector include the following³⁸:

- Greater levels of innovation in the design and delivery of public services
- Increased collaboration with the private sector

2 Contracts for Innovation in Northern Ireland

Northern Ireland (NI) implemented the Contracts for Innovation programme in 2010. An independent review concluded that the scheme 'had high-level ministerial and Assembly Committee support'³⁹. The scheme is under the

³⁵ Steer Economic Development (2022) [An Evaluation of the Small Business Research Initiative \(ukri.org\)](https://www.ukri.org), p8

³⁶ Steer Economic Development (2022) [An Evaluation of the Small Business Research Initiative \(ukri.org\)](https://www.ukri.org), p9

³⁷ Ibid

³⁸ Ibid

³⁹ David Connell (2017) [Leveraging public procurement to grow the innovation economy](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/628882/leveraging_public_procurement_to_grow_the_innovation_economy.pdf), p120

purview of the Department of the Economy (DfE) with support and advice from Matrix NI⁴⁰.

2.1 Contracts for Innovation Challenge Fund NI

In 2016, the NI Executive established a central, ring-fenced Contracts for Innovation Challenge fund worth £1.1 million⁴¹. In 2020, £2.5 million was awarded across 13 Contracts for Innovation projects⁴². This fund was set up to support competitions from across the public sector. To access the central funding, public sector bodies bid to run a competition⁴³. The Department for the Economy (DfE) invites bids from the public sector annually between December and January, although expressions of interest can be submitted throughout the year⁴⁴. Historically, this fund has been oversubscribed, with only a third of bids funded in 2016/2017⁴⁵.

2.2 Matrix NI

Matrix is a NI-based independent panel composed of leaders in business and academia. It is supported by a secretariat team in the DfE⁴⁶. The panel's role is to advise and inform government, academia and industry on the commercialisation of R&D, as well as science and technology⁴⁷. Matrix is particularly focused on supporting science and technology to drive economic

⁴⁰ [SBRI - the Small Business Research Initiative](#), Department for the Economy, (n.d), Accessed: 20 May 2024

⁴¹ David Connell (2017) [Leveraging public procurement to grow the innovation economy](#), p120

⁴² [£2.5million announced for Small Business Research Initiative projects](#), Department for Economy, 2 July 2020, Accessed: 23 May 2024

⁴³ Ibid

⁴⁴ [Information for Public Sector](#), Matrix, (n.d), Accessed: 21 May 2024

⁴⁵ David Connell (2017) [Leveraging public procurement to grow the innovation economy](#), p120

⁴⁶ [The Matrix panel](#), Matrix, (n.d), Accessed: 21 May 2024

⁴⁷ [The aims of the Matrix panel](#), Matrix, (n.d), Accessed: 21 May 2024

growth in NI⁴⁸. It collaborated with the DfE to form the Northern Ireland SBRI initiative (now known as Contracts for Innovation)⁴⁹.

3 AERA-related case studies in Northern Ireland

The following sections provide some examples of Contracts for Innovation projects which are of relevance to the Committee for Agriculture, Environment and Rural Affairs (AERA).

3.1 Sustainable Utilisation of Livestock Slurry (2023)

Challenge owner: Department of Agriculture, Environment and Rural Affairs (DAERA)

Participating organisation(s): B9 Solutions Limited with ReCon Waste Management, Renewables United, The Centre for Competitiveness/LUCERNE, Blakiston Houston Estate Company, Carbon Technologies Group and Natural World Products

Status: Phase 1 competition concluded⁵⁰

In 2023, DAERA jointly funded a Contracts for Innovation competition with the DfE to develop solutions to reduce surplus phosphorous in the agricultural system in NI⁵¹. The competition also aimed to ensure efficient nutrient recycling. Six companies were successful in the Phase 1 competition and each awarded £100,000 to develop their solution⁵². On completion of Phase 1, all six companies submitted reports to DAERA officials. DAERA is collaborating with the Agri-Food Biosciences Institute (AFBI) to plan their next step⁵³.

⁴⁸ Ibid

⁴⁹ [SBRI - the Small Business Research Initiative](#), Department for the Economy, (n.d), Accessed: 21 May 2024

⁵⁰ [DAERA's Sustainable Utilisation of Livestock Slurry competition exceeds expectations](#), DAERA, 15 November 2023, Accessed: 23 May 2024

⁵¹ Ibid

⁵² Ibid

⁵³ Ibid

3.2 Using AI to modernise agricultural process (2019)

Challenge owner: Department of Agriculture, Environment and Rural Affairs (DAERA)

Participating organisation: Objectivity

Status: Phase 2 completed in 2021/22⁵⁴

DAERA launched a competition in 2019 to develop a solution to improve the 'frequency and accuracy of data on animal location and movement at a small area level in NI'⁵⁵. DAERA must know the location of farm animals for disease management. Previously data was collected via annual and bi-annual censuses. Objectivity developed an artificial intelligence (AI) technology which identifies animals from satellite images or orthophotos⁵⁶.

3.3 Other relevant case studies

Competition	Challenger Owner	Link to further information
Mobuoy Road waste remediation (2016)	The then Environment Minister (Michelle McIlveen) in partnership with Innovate UK	Competition brief Background Information
Innovative solution to deliver the real-time monitoring of soil health (2021)	AFBI	Description of competition

⁵⁴ [SBRI Projects](#), Matrix NI, (n.d), Accessed: 23 May 2024

⁵⁵ [DAERA completes an SBRI using AI to modernise agricultural processes](#), Matrix NI, 16 November 2021, Accessed: 23 May 2024

⁵⁶ Ibid

4 Agriculture and environment-related case studies across the UK

4.1 Metal Extraction from Water Flows (2015)

Challenge owner: Natural Resources Wales, Welsh Government

Participating organisation: Elentec

Status: Commercialised via alternative route⁵⁷

The Metal Extraction from Water Flows competition was set up in 2015 by Natural Resources Wales and the Welsh Government to explore new technologies to remediate pollution, particularly from metal mine sites in upland areas⁵⁸. Elentec developed a method to successfully remove pollutant metals from water bodies using electrochemical coagulation⁵⁹.

4.2 Tree Seed Challenge (2019)

Challenge owner: CivTech, Forestry Land Scotland

Participating organisation: Cumbria Tree Growers

Status: Commercialised via alternative route⁶⁰

In the late 2010s, there was an urgent need in Scotland to increase tree planting⁶¹. Therefore, in 2019, CivTech Scotland & Forestry Land Scotland combined to run a competition to find innovative solutions to this problem using Scotland's tree seed bank. With this funding, Cumbria Tree Growers Ltd

⁵⁷ Steer Economic Development (2022) An Evaluation of the Small Business Research Initiative: Appendix F: Case Studies <https://www.ukri.org/wp-content/uploads/2022/05/UKRI-130522-EvaluationoftheSBRIReportAppendicesFCaseStudies-WEB-FINAL.pdf> , p48

⁵⁸ Steer Economic Development (2022) [An Evaluation of the Small Business Research Initiative \(ukri.org\)](https://www.ukri.org/wp-content/uploads/2022/05/UKRI-130522-EvaluationoftheSBRIReportAppendicesFCaseStudies-WEB-FINAL.pdf), p7

⁵⁹ [Electro-Coagulation](#), elentecBio, (n.d), Accessed: 20 May 2024

⁶⁰ Steer Economic Development (2022) An Evaluation of the Small Business Research Initiative: Appendix F: Case Studies <https://www.ukri.org/wp-content/uploads/2022/05/UKRI-130522-EvaluationoftheSBRIReportAppendicesFCaseStudies-WEB-FINAL.pdf> , p28

⁶¹ [TreeTape - Welcome To The Future](#), Cumbria Tree Growers Ltd, Accessed: 17 May 2024

developed TreeTapes, a nutrient-dense biodegradable tape along with a fully automated system for sowing the seeds into the ground⁶².

5 Other case studies in Northern Ireland

5.1 Smart School Transport (2018)

Challenge owner: Education Authority

Participating organisation: Kinsetsu

Status: Procured⁶³

The Education Authority in NI sought to improve the safety and comfort of students travelling to school, improve the efficiency of the school transport system and establish a more effective school transport network. Kinsetsu developed a solution, known as kstop, using RFID technology and GPS⁶⁴. This technology facilitated real-time tracking of students boarding buses and enabling parents and teachers to receive notifications about attendance, timings and routes⁶⁵.

5.2 Northern Ireland Business Rates (2016)

Challenge owner: Northern Ireland Department of the Economy on behalf of Belfast City Council

Participating organisation: nquiring minds

Status: Procured (but on hold)⁶⁶

⁶² Ibid

⁶³ [kstop – Smart Transport Operating Platform](#), GOV.UK Digital Marketplace, (n.d), Accessed: 20 May 2024

⁶⁴ Ibid

⁶⁵ [SBRI - the Small Business Research Initiative](#), Department for the Economy, (n.d), Accessed: 20 May 2024

⁶⁶ Steer Economic Development (2022) An Evaluation of the Small Business Research Initiative: Appendix F: Case Studies <https://www.ukri.org/wp-content/uploads/2022/05/UKRI-130522-EvaluationoftheSBRIReportAppendicesFCCaseStudies-WEB-FINAL.pdf> , p59

Over half of Belfast City Council revenue is derived from business rates⁶⁷. In NI, vacant commercial premises are eligible for 100% business rate relief.

However, inconsistent and inaccurate property inspections led to incorrect categorization of many premises as vacant⁶⁸. Therefore, in 2016, the DfE ran a competition on behalf of Belfast City Council to tackle this issue. In response, nquiring minds developed a business rates analytics solution which allows local authorities to organise and manage business rate collection more effectively⁶⁹.

6 Other case studies in England/UK-wide

6.1 First of a Kind: Demonstrating Tomorrow's Trains Today (2017)

Challenge owner: Department for Transport

Participating organisation: Transreport

Geography: UK

Status: Procured⁷⁰

In 2017, the Department for Transport launched a competition to tackle accessibility challenges at UK railway stations. The competition focused on new technologies to make travelling by train a safer and more enjoyable experience for all. Transreport developed a smartphone app called 'Passenger Assistance' which facilitates communication between passengers requiring assistance and railway staff to ensure efficient and quick delivery of assistance⁷¹.

⁶⁷ [TDX Business Rates](#), nquiring minds, Accessed: 17 May 2024

⁶⁸ Steer Economic Development (2022) [An Evaluation of the Small Business Research Initiative \(ukri.org\)](#), p8

⁶⁹ [TDX Business Rates](#), nquiring minds, Accessed: 17 May 2024

⁷⁰ Steer Economic Development (2022) An Evaluation of the Small Business Research Initiative: Appendix F: Case Studies <https://www.ukri.org/wp-content/uploads/2022/05/UKRI-130522-EvaluationoftheSBRIReportAppendicesFCCaseStudies-WEB-FINAL.pdf> , p78

⁷¹ [Transreport for Rail: Innovative Data-Driven Solutions](#), Transreport, Accessed: 17 May 2024

7 Other case studies in Wales

7.1 COVID-19 Speed Cleaning Ambulances (2020)

Challenge owner: Welsh SBRI Centre of Excellence on behalf of Welsh Ambulance

Participating organisation: Hygiene Pro Clean

Status: Procured⁷²

In March 2020, the NHS was facing immense pressure due to the COVID-19 outbreak. This particularly affected ambulances, which required thorough cleaning after contact with suspected COVID-19 patients⁷³. This resulted in many ambulances being out of use. In response, the Welsh SBRI Centre of Excellence ran a competition to find a solution to this issue. Hygiene Pro Clean developed a decontamination system involving an ultrasonic atomising delivery system⁷⁴. This solution reduced the time it takes to disinfect an ambulance to 20 minutes⁷⁵.

⁷² Steer Economic Development (2022) An Evaluation of the Small Business Research Initiative: Appendix F: Case Studies <https://www.ukri.org/wp-content/uploads/2022/05/UKRI-130522-EvaluationoftheSBRIReportAppendicesFCCaseStudies-WEB-FINAL.pdf> , p12

⁷³ Ibid, p13

⁷⁴ [Hygiene Pro Clean](#), Hygiene Pro Clean, Accessed: 17 May 2024

⁷⁵ Steer Economic Development (2022) An Evaluation of the Small Business Research Initiative: Appendix F: Case Studies <https://www.ukri.org/wp-content/uploads/2022/05/UKRI-130522-EvaluationoftheSBRIReportAppendicesFCCaseStudies-WEB-FINAL.pdf> , p14