CALL SUMMARY

Applicants should refer to the Greenhouse Gas Removal (GGR) Demonstrators call webpage and the Call for Proposals document (available for download from the call webpage) for details of the call scope, including scientific focus, requirements, exclusions and available resources.

Up to £22.5 million is available to fund up to five Demonstrators covering greenhouse gas removal technologies as outlined in the Royal Society Greenhouse Gas Removal report. It is advised that you read the Royal Society Report to fully understand the scope of the call.

Please note that all Demonstrators must have a start date of no later than 14th February 2021 and will have the duration of 4.5 years (54 months) to cover the full duration of the programme.

APPLICATION AND ASSESSMENT PROCESS - SUMMARY

<table>
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<th>Stage</th>
<th>Assessment</th>
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<td>Expressions of Interest/Outline stage - mandatory</td>
<td>Expression of Interest (EOI)/Outline proposals will be assessed by an expert panel (GGR Demonstrators Expert Panel) comprising representatives of the national and international community. Successful applications will be invited to submit a full stage proposal based on the expert panel recommendations. The closing date for the EOI/Outline stage is 19th November 2019, 4:00 pm.</td>
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<tr>
<td>Full stage – by invitation only</td>
<td>Full stage proposals will be assessed by full external peer review with assessment undertaken by the GGR Demonstrators Expert Panel. As part of the assessment, UKRI-BBSRC may also invite the Principal Investigator (PI) and Co-Investigators (Co-Is) to an interview with the panel.</td>
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The GGR Demonstrators Expert Panel will integrate all the assessment information and formulate a final ranked list with recommendations to UKRI-BBSRC for funding.

The closing date for the full stage is 6th May 2020, 4:00 pm.

ELIGIBILITY

This call for proposals is open to all institutions and applicants normally eligible for BBSRC funding. See Section 3 of the BBSRC Grants Guide for further information on institutional and applicant eligibility. A list of eligible organisations is available on the UKRI website: https://www.ukri.org/funding/how-to-apply/eligibility/). It should be noted that PIs and Co-Is from any discipline supported by UKRI are welcomed and encouraged to apply.

We expect that successful proposals will be led by researchers with a proven ability to deliver large-scale research projects or centres successfully as well as a proven ability to interact successfully with business. We encourage inter-institutional and interdisciplinary applications and encourage partnerships with non-HEI organisations where they meet eligibility requirements for funding by a research council.

The Demonstrator PI (and host Institution) will be responsible for the development and directorship of the Demonstrator. Six to ten Co-investigators may be named in the proposal. The inclusion of each Co-I should be fully justified as to their role in the proposed Demonstrator. A PI or a Co-I cannot be considered for this and the Directorate Hub Call simultaneously.

Investigators may be involved in no more than two Demonstrator proposals submitted to this call and only one of these may be as the Principal Investigator.

Public Sector Research Establishments (PSREs) with 10 or more researchers with PhDs (or equivalent) are eligible to apply. If PSREs wishing to apply have not previously applied for UKRI funding and are not currently designated IRO status they will be required to complete an eligibility form to ensure they have the required research capacity, systems and controls in place to manage the research and grant funding. PSRE applicants should contact GGR@bbsrc.ukri.org at the earliest opportunity to discuss their interests in applying.

At the EOI/outline stage, all we require is a list of potential PSREs and a brief introduction to the establishment; this can be uploaded on Je-S as an additional attachment.
ELIGIBLE COSTS

The following is a guide to what applicants are able to request in support of their proposal.

**Director salaries and research support costs**

The Director of the Demonstrator should be the named PI on the proposal and under full economic costing may request funds to cover their salary costs for the time spent developing and directing the Demonstrator. Requests may also be made for between six and ten co-investigators to assist the Demonstrator’s Director in this. Co-Investigators must have a defined role within the Demonstrator to justify their inclusion, which must be described in each case. **Costs can be requested for an appropriately skilled Demonstrator Project Manager(s)** (full time, part-time or job share) to be responsible for activities such as the day-to-day Demonstrator management, event coordination, communication and potential website development for the Demonstrator. Due to the size and complexity of the programme it is advised that a Demonstrator Project Manager is included in the proposal.

The time spent on directing and managing the Demonstrator should be reasonable and is not expected to form the majority of costs of the proposal.

Capital expenditure of approximately 18% of the grant is available across all of the Demonstrators but this is not expected to support the acquisition of very large-scale equipment.

**Demonstrator-led events**

Costs for supporting and facilitating meetings and events can be requested and are strongly advised to facilitate early academic/business interactions.

**Proof of concept studies/Flexible fund**

Flexible funds with a suggested limit of £500K can be requested as part of the proposal for allocation by the Demonstrator for further research and development, and particularly to facilitate early business interaction activities prior to provision of Innovate UK funding (competitions to run in FY2022/23 with funds awarded as grants in Q3 for two years). The flexible funds can be used for Demonstrator specific projects to fund academic researchers to overcome blockages, these may include feasibility studies or projects to provide preliminary data, through to desk-based studies and visits to learn new techniques, as well as facilitating early engagement with business to strengthen, the quality, collaborative and cross-disciplinary nature of future innovation. It is encouraged that the Demonstrator seeks collaborations with companies where funds can be matched. Activities should not duplicate already available funding streams (e.g. FOF https://bbsrc.ukri.org/funding/filter/follow-on/).

The governance surrounding the use of the flexible funds should be clearly described including how these proposals will be assessed and selected for funding and how the progress and outcomes will be monitored and utilised to enhance the value of the Demonstrator and future business interactions.

Flexible funds will be funded at the 80% level by BBSRC and should be allocated at the 80% level for each project by the Demonstrator host institution. The Institution where the research
is to be undertaken should be responsible for the 20% shortfall. As these are research-based projects, they can include a component to cover estates and indirect costs for the relevant institution.

The flexible funding will be managed as a separate part of the main grant by each Demonstrator and will be held by BBSRC until requested (at any time) by the host institution to fund Demonstrator selected flexible fund proposals. All funds will be reimbursed at least 3 months in arrears and an audit trail is essential for the reimbursement.

Summary of eligible costs

- Salary costs for the PI and CoI, costed at an appropriate level to reflect the time spent developing and directing the Demonstrator.
- Salary cost for a dedicated Demonstrator Project Manager(s) (full time, part-time or job share) are eligible and should be requested at 80% FEC.
- Costs for supporting events (room hire, catering, etc.) to develop the Demonstrator and its scaling to grow academic and business interactions.
- Flexible funds up to £500k (requested at 80% FEC) to support further academic or business interactions. These are also eligible for estates and indirect costs also at 80% FEC. (note that the flexible fund will be held by BBSRC until requested).

**APPLICATION AND ASSESSMENT PROCESS – EOI/OUTLINE STAGE**

The outline stage is mandatory and applicants are required to submit an Expression of Interest (EOI) indicating the intentions of their Demonstrator, the proposed scale of operation, overall aims and objectives and expected outcomes and likely funding required to meet these aims (this should include an outline of any Capital expenditure as well as resource expenditure).

**How to apply**

Expressions of Interest should be submitted through the Joint Electronic Submission (Je-S) System by Tuesday 19th November 2019, 4:00 pm using the following information:

1. Log in the Joint Electronic System (Je-S)
2. Select Council: BBSRC
3. Select Document Type: Outline proposal
4. Select Scheme: Standard Outline
5. Select Call/Type/Mode: GREENHOUSE GAS REDUCTION OUTLINES
6. Select ‘Create Document’ and follow the on-screen instructions to complete the form.

In addition to the Je-S proposal form, the only attachment that should be provided is the
Case for Support, CV for lead/PI and the PSRE additional information, if required. No other attachments (e.g. covering letter, additional CVs, letters of support) will be required at this stage. Proposals must be submitted on a single Je-S proposal form, even if they are multi-institutional bids.

Case for support (EOI/outline stage)
The Case for Support must be structured using the headings below and must not exceed 4 pages of A4. At a minimum, font size 11 in Arial or other sans serif typeface of equivalent size must be used with a minimum of single line and standard character spacing. Page margins should be no less than 2cm.

The following headings should be used:

**Section 1: Science Case** (one page recommended)
- Identify the overall aims of the proposed Demonstrator, set in the context of the call’s Greenhouse Gas Removal scope to explore the effectiveness, cost, interdisciplinary nature and limitations of large-scale demonstration of GGR.
- Further, applicants should identify environmental risks and their management, co-benefits, risk management, business operating models, ethics, political and societal acceptability and engagement.
- The high-level objectives for the Demonstrator must be included (typically 3-5 bullets) with an explanation of how these will be tackled. If a full proposal is invited, it is expected that the high-level objectives will appear unchanged unless feedback from the EoI assessment process indicates otherwise.

**Section 2: Statement of added value** (up to one page recommended)
- Justify the need for Strategic Priorities Fund (SPF) GGR funding, describing the added value of funding through this mechanism. Describe how the work proposed is a fully integrated programme of work that must be tackled via an inter- and multi-disciplinary programme of coordinated activity with other Demonstrators and the Directorate hub.
- Outline how the proposed research complements other research funded in this area nationally and internationally, including the wider UKRI research councils (NERC, EPSRC, ESRC, AHRC, BBSRC and Innovate UK).

**Section 3: Strategic Case** (one page recommended)
- The significance and importance of the proposed research, including how the Demonstrator will demonstrate the overall capability of the technology in relation to UK GGR targets as outlined by the Royal Society Report.
- How the Demonstrator will provide a quantitative assessment of the technology’s effectiveness in CO₂ removal, its costs and its limitations if deployed at large scale.
- Outline potential routes for sustainable scalability. This should include scientific, technological, environmental, economic and social issues that may need to be considered for full scale deployment of that particular technology. This should be undertaken in cooperation with the Directorate Hub.
• Demonstrate how the Demonstrator will commit to working collaboratively with the other demonstrators in the programme as well as with the Directorate hub, and to identify and exploit potential opportunities to work with other existing UKRI investments, where appropriate, to maximise impact and to meet UK Government GGR targets for 2050.

Section 4: Ability to deliver (one pages recommended)

• The contribution to the project of each named Investigator (PI/Co-I), including a clear time commitment. This should be in the form of a succinct personal statement, providing evidence of the skills and expertise they will bring to the project based on significant prior research achievements and broader impacts. This is expected to include any engagement in previous collaborative projects by the investigators.

• The leadership track record of the PI demonstrating capability to lead the project. This should include prior experience of managing and successfully delivering complex multi-investigator/PDRA research projects as well as any relevant professional development activities. Where relevant, their ability to mentor and support the development of Early Career Researchers should be included.

• The resources or facilities that will be available within the team and their institutions to underpin the research.

Resources
The Je-S form should include a summary of anticipated resources that would be requested at the full stage. Detailed justification of the resources requested is not required at the outline stage and resources requested may be refined at the full stage.

Assessment process: outline stage

Outline proposals will be assessed by an expert panel (GGR Demonstrators Expert Panel) comprising representatives of the national and international community. There will be no external peer review stage.

Expressions of interest will be assessed with reference to the scope of the call and against the following assessment criteria:

Appropriateness of the technology. The extent to which the technology proposed has the potential to deliver GGR as a Demonstrator and at an appropriate scale to meet the GGR targets as outlined by the Royal Society Report

Leadership. Clear demonstration of experience and a track record of leading multi- or interdisciplinary research, evidence of leading a large collaborative demonstrator or centre

Resources. Applicants must provide a brief overview of the funds requested relative to the anticipated project outcomes.

Governance structure. Projects must demonstrate a structure to manage and deploy resources and to integrate with the central Directorate Hub and the GGR Programme Board.
In addition, the panel will consider the range of technologies covered by Demonstrator proposals to ensure a broad suite of solutions is supported to full stage application. Successful applicants will be invited to submit a full stage proposal based on the expert panel recommendations. Feedback will be provided to all applicants.