Engineering Biology Mission Awards

Call Guidance

How to apply (invited full proposals)

Full proposals must be submitted on a single Je-S proposal form, even if they are multi-institutional bids. The award will be made to the lead institution, which will be responsible for the management of the award.

Applicants should also refer to the [Je-S help text](#) and [BBSRC Grants Guide](#), in addition to this call guidance, when preparing a proposal.

The call for Mission Hubs will open on Je-S on **2nd June 2023** and proposals must be submitted through the Je-S System. The deadline for submission is **4pm, 19th July 2023.**

Submit using the following information:

1. Log in the Joint Electronic System (Je-S)

2. Select Council: BBSRC

3. Select Document Type: Standard Proposal

4. Select Scheme: Standard

5. Select Call/Type/Mode: Engineering Biology Mission Awards

6. Click Create Document

Submissions must be made on a single Je-S proposal form, regardless of the number of Research Organisations involved in the Mission Awards proposal

Overview of submission documents

The following documentation is required

Document	Description	Page limit and additional information
Case for Support	The Case for Support must be self-contained. External links are not permitted. References must be included within the page limit. See detailed information below for Case for Support requirements.	Maximum 8 pages
Team Résumé for Research and Innovation	See detailed information below for Team Résumé for Research and Innovation requirements.	Maximum 2 pages for the narrative résumé. Team composition and eligibility tables to be provided in addition to the narrative résumé (does not count towards the page limit for the narrative section).
Justification of Resources	A narrative description of the resources required for the project.	Maximum 2 pages All resources requested (directly incurred, directly allocated and exceptions, including PI and Co-I time) must be fully justified. Items that would ordinarily be found in a department, for example non-specialist computers, should include justification both for why they are required for the project and why they cannot be provided from the Research Organisation's own resources (including funding from indirect costs from grants). Please see the Je-S guidance for further details. Specific resources for elements of data-intensive bioscience within the proposed research programme, such as data management, can be requested. For additional information please see the BBSRC Grants Guide.
Work Plan	A detailed diagrammatic work plan and supporting narrative that relates to the project, identifying appropriate time points and deliverables for each objective. A Gantt chart is recommended	Maximum 1 page
Data Management Plan (DMP)	Please see Data management plan – UKRI	Maximum 1 page
Equipment Business Case	A separate business case for the capital equipment component of	N/A

	the application **will not be required**, but the need for the equipment in meeting the aims of the project must be clearly outlined and described in the Justification of Resources. <u>For more information see Capital Equipment Guidance below.</u>	
Letters of support – **MUST** include a letter of support from each Institution involved in the Award and, if applicable, from any industrial collaborators	Only directly relevant Letters of Support should be submitted. These can include letters from: • Head of Department (or equivalent) This should confirm any institutional resources committed to the project. Letters from multiple departments/ organisations should be combined into a single pdf • Collaborators (required for all named collaborators providing a contribution to the Mission Award) • Project Partners (required for all named Project Partners providing a contribution to the Mission Award) • Letters of Support confirming eligibility status (e.g. confirmation from Head of Department that a researcher's contract of employment will be extended beyond the Mission Awards should the proposal be successful) Other letters of support are not permitted.	Please provide Letters of Support from the Head of Department (or equivalent) and Collaborators in a single combined pdf, where relevant.

Case for Support – document guidance

The Case for Support must be structured using the headings below and must not exceed eight pages of A4. References must be included within the page limit. 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 2 cm.

The Case for Support should clearly state in the first paragraph which of the following four mission areas the application primarily addresses, as well as flagging any additional mission coverage. For example, "This application addresses engineering biology for **food systems** (primary) and **environmental solutions**".

- Engineering biology for food systems
- Engineering biology for biomedicine
- Engineering biology for clean growth
- Engineering biology for environmental solution

Section 1: Science Case (at least six pages recommended), including and introduction and background

- Introduce the topic of research and explain its academic and wider context. Explain why the proposed project is of sufficient timeliness and novelty to warrant consideration for funding. Highlight features which are particularly original or unique. An award should drive research and innovation (existing or new and novel) towards tangible mission-oriented impacts, including both commercial and societal.
- Demonstrate a knowledge and understanding of past and current work in the subject area both in the UK and internationally.
- If this work is building on and exploiting pre-existing developments, provide a summary of the results and conclusions of the recent work in the research area(s) relevant to the proposal.
- Describe the programme of work, indicating the research (experimental and data analysis) to be undertaken and the milestones that can be used to measure its progress. The detail should be sufficient to indicate the programme of work for each member of the research team. Identify any potential risks within the research programme and strategies to mitigate these risks (e.g. alternative approaches).
- Provide the individual measurable objectives for the planned Engineering Biology Mission Award and explain how these will be tackled. This should include a detailed description and justification for the methods and approaches to be employed. An award is expected to set inspiring and stretching targets which focus the efforts of academia, industry and other partners, on complex problems which require a coordinated approach for successful delivery.
- Clearly articulate how the proposed project addresses the scope of the call, including how it aligns to the missions identified in the first paragraph.
- Identify any facilities or resources you will need to access.
- A description as to the novelty of the research area and how the research and innovation will drive impact through translation and commercial partnership.

Section 2: Statement of added value (up to one page recommended)

- Justify the need for Engineering Biology Mission Award funding, describing the added value of funding through this mechanism. Outline a clear strategy for how the integrated activities

within the proposed Award will deliver 'greater than sum of parts' outcomes which could not be achieved through a series of smaller, shorter grants and investments.

- Outline how the proposed research complements and does not overlap with other research funded in this area nationally and internationally, including UKRI's research portfolio. For information on UKRI's portfolio, please see Gateway to Research.

Section 3: Strategic Case (up to half a page recommended)

- The significance and importance of the proposed research, including how the Engineering Biology Mission Award will enhance the international position of UK science in the research area.
- How the research and innovation programme will have an impact on the broader health and vitality of UK engineering biology and wider disciplines. Where applicable, this might include: plans for ensuring the longer-term legacy of data, software, technologies and other community resources, skills and national capability developed during the project, as well as identifying potential routes towards economic or societal impacts where these may already be evident.

Section 4: Management strategy (up to half a page recommended)

- Describe how the project will be managed to ensure effective working of the investigators and wider team, effective utilisation of resources, and successful delivery of the planned outcomes. The management approach should be appropriate to the nature and scale of the programme.
- Provide details about the governance, advisory and management structure, details of the approach to project and risk management, and the monitoring strategy for the proposed programme.

Further to the sections above:

Applicants are expected to consider responsible innovation during planning and throughout the duration of their project, and plans for responsible innovation should be embedded within all sections above. Responsible Innovation is a process that seeks to promote creativity and opportunities for science and innovation that are socially desirable and undertaken in the public interest. Innovation is a collective responsibility where funders, researchers, and interested and affected parties, including the public, all have an important role to play.

If your study involves the use of animals, please refer to our guidance here for information on how this should be incorporated into your proposal. Similarly, if there are any potential human/clinical aspects, please refer to MRC Guidance on Ethics and Approvals https://mrc.ukri.org/funding/guidance-for-applicants/5-ethics-and-approvals/

The Case for Support should not include a track record as this information will be captured in the Team Résumé for Research and Innovation document (see below).

References should be included in the page limit and appear in a list at the end of the Case for Support and be linked to relevant text. We strongly encourage references to be given as DOIs to allow additional space for the scientific case. Within the list of references, URL links to relevant publications or online resources are permissible

Team Résumé for Research and Innovation - template and document guidance

The Team Résumé for Research and Innovation (R4RI) should serve as a single narrative. It showcases how the relevant experience and expertise within the team, as well as the institutional environment(s) in which the research will take place, demonstrates the team's collective capability to deliver the proposed Engineering Biology Mission Awards.

Please use the R4RI template, which can be downloaded from here. Please adhere to the following call specific guidance when completing the template.

Applicants should prioritise the selection of the most relevant exemplars according to each section described in the template and make it clear how these relate to the capability to deliver the proposed

Information that **must not** be included:

- Detailed biographical information such as prior positions held, length of employment
- Extensive lists of publications
- Journal-based metrics such as impact factors, H-index, or other surrogate measures of an applicant's outputs
- Pictures of applicants

The Team Résumé for Research and Innovation should be organised into the sections provided in the template and must not exceed **2 pages of A4**. Any references considered essential to evidence the narrative must be included within the page limit. External links are not permitted. 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 2 cm.

When completing the template, please ensure that you address the following and not the modules contained in the UKRI template. The following sections and modules have been adapted slightly to account for larger collaborative teams anticipated through this call.

1. **Team Composition.** Within the short role descriptor for each applicant, please consider the following. This does not count towards page and character limits.

   o *Their scientific contributions, e.g. research field and specialist knowledge, experience, technical and data analysis expertise*
   o *Their role and responsibilities, e.g. managerial, leadership, mentoring*
   o *References to specific work packages are recommended*
   o *Highlight where applicants will work collaboratively to deliver specific project requirements*
   o *Include clear time commitments for each applicant*

2. **Eligibility.** Please include the following table, completed for each applicant. This does not count towards page and character limits.

   o *Indicate any Researcher Co-Investigators as well as Principal and Co-Investigators.*

	If the PI or Co-Is answer 'no' to any of these questions you must provide a letter of support confirming eligibility in your full stage proposal (does not apply to Researcher Co-Investigators)		
Team member	**Current position is of lecturer level or equivalent?**	**Resident in UK for 183 days or more per tax year?**	**Current post will outlast duration of grant?**
e.g. Principal or Co-Investigator	*Yes*	*Yes*	*Yes*
e.g. Researcher Co-Investigator	*No[1]*	*Yes/No[2]*	*Yes/No*

3. **Module 1** – Contributions **of each applicant** to the generation of new ideas, tools, methodologies or knowledge

   o *Examples might include: contributions to (and skills acquired from) past research projects; key outputs such as publications, datasets, software and intellectual property*
   o *The most relevant examples are likely to relate to previous work related to the proposed Mission Award.*

4. **Module 2** – The development of others and maintenance of effective working relationships **and research teams**

5. **Module 3** – Contributions **of team members** to the wider research and innovation community

   o *Examples might include: contributions to wider collaborations and networks; establishment of community resources; contributions to the improvement of research culture including equality, diversity and inclusion practices; commitments such as editing, reviewing and committees.*

6. **Module 4** – Contributions **of team members** to broader research/innovation-users and audiences and towards wider societal benefit

   o *Examples might include: contributions to (and skills acquired from) past project management, supervision, mentoring or line management activities which were critical to the success of a team; strategic leadership which shaped the direction of a team or organisation; personal development activities; management of complex multi-investigator or multi-site projects*
   o *Examples provided should evidence the team's collective capability to lead and manage the proposed Mission Awards project*

7. **Module 5** – The team's institutional environment(s) and how they will help to deliver the proposed project (Please feel free to either use the additions box or add an extra module to the template for this section)

- o *Examples might include: availability of specialist equipment or facilities; provision of training in skills relevant to the proposed project; approaches to equality, diversity and inclusion*

8. **Additions**

   - o *This section does not count towards the page limit, and must not be used to describe additional skills, experiences or outputs.*
   - o *Any further relevant information which evidences the team's capability to deliver the proposed*
   - o *Contribution of collaborators, project partners, and sub-contractors.*

This Team R4RI should be submitted using the 'C.V.' attachment type descriptor. The section guidance notes (text in italics) should not feature in the final submitted document. The amount of information provided within each section may vary depending on the requirements of the proposed project and the relevant skills and experience of each applicant.

The amount of information provided within each section may vary depending on the requirements of the proposed project and the relevant skills and experience of each applicant. It should be evident that each individual is contributing to delivering the proposed Engineering Biology Missions Awards project.

Within the Team Composition, Eligibility and Module 1, information pertaining to each team member must be provided. Within other sections, there is no need to provide information for every team member. Where applicable, the narrative should highlight how applicants have worked together and delivered key outcomes in current or prior collaborative projects.

Capital Equipment

- o A separate business case for the capital equipment component of the application will not be required, but the need for the equipment in meeting the aims of the project must be clearly outlined and described in the Justification of Resources.

- o Costs such as initial installation or service maintenance contracts can be included if they are one-off costs and part of the manufacturer's offer. These costs should also be included in the Justification of Resources.

- o Service maintenance contracts may extend a maximum of 24 months past the end date of the award, but the contract cost must be paid within the first 12 months. Where a compelling case can be made for warranties and service contracts extending beyond this time, these will be considered if appropriately justified.

- o Refurbishment or installation costs may be eligible under the scheme providing these are an absolute requirement for the proper functioning of the capital equipment requested (e.g., a ventilation system or cold room). These costs must be itemised in the application and fully justified.

- o Contributions from the host institution or institutions and other external sources are encouraged but not mandatory. These may take the form of cash contributions, running

costs, or staff resourcing associated with the equipment, for example, managing, operating, or providing training on the equipment.

o   All resources requested (directly incurred, directly allocated and exceptions, including PI and Co-I time) must be fully justified. Items that would ordinarily be found in a department, for example non-specialist computers, should include justification both for why they are required for the project and why they cannot be provided from the research organisation's own resources (including funding from indirect costs from grants).

o   The application should include at least three recent quotes (i.e., dated in the last six months at the time of the opportunity closing date) for the equipment, or reasons not to include three quotes are clearly stated in Justification of Resources. All quotes must be provided in GBP. When quotes are not provided in GBP the conversion rate used at the time of submission must be clearly stated in the Justification of Resources.

o   Capital equipment will be funded at 100% full economic cost.

Conditions of award

Awards will be made under standard UKRI Research Grant Terms and Conditions to the lead organisation, which will be responsible for the management of the award.

Awards through this opportunity will be required to start by 14 February 2024.

Reporting and Monitoring

As a condition of an Engineering Biology Mission Award, in addition to standard reporting requirements, the PI may be required to complete a final report after the end of the award. A report template will be provided.

In addition, the Principal and/or Co-Investigators must respond in an appropriately timely manner to any reasonable request by BBSRC, UK Research and Innovation, or Department for Science, Innovation & Technology regarding the progress of or information from the project.