EPSRC circular economy critical mass programmes: full application stage

Contents

Funders involved

EPSRC

Type of funding

X	Grant		Fellowship
	Loan		Other

Funding available

Total fund amount (indicative)	Up to £12,000,000 (80% fEC)
Minimum amount per application	£5,000,000 (80% fEC)
Maximum amount per application	£6,000,000 (80% fEC)

Start application link

TFS link to be provided via email no later than 18th April

Key dates / timeline

Event	Date	UK Time 12-hour clock
Opening date	18 April 2023	9:00am
Closing date	13 June 2023	4:00pm
Interview panel	w/c 16 October 2023	
Decision date	November 2023	

Who can apply

You can only apply for this Opportunity if we have invited you to do so following a successful outline proposal. We informed successful applicants in early April 2023.

You must not change the principal investigator between the outline and full stage without EPSRC's prior approval.

Before applying for funding, check the following:

- the EPSRC eligibility guidance for applicants
- the eligibility of your organisation
- Principal investigators and co-investigators may be involved in no more than two applications submitted to this funding opportunity. Only one of these can be as principal investigator.

Equality, diversity and inclusion

We are committed to achieving equality of opportunity for all funding applicants. We encourage applications from a diverse range of researchers.

We support people to work in a way that suits their personal circumstances. This includes:

- career breaks
- support for people with caring responsibilities
- flexible working
- alternative working patterns

Find out more about [equality, diversity and inclusion at UKRI](#).

What we're looking for

Scope

This opportunity aims to fund up to two critical mass programmes directly contributing to the realisation of a UK circular economy and the environmental, economic and social benefits this will bring.

There are many different definitions of a circular economy. At its heart, UKRI considers it to be about:

- producing less

- keeping the products, materials and resources we use and produce in circulation at their highest value for as long as possible

- recovering resources after use

Circular economy is a key feature of EPSRC's Engineering Net Zero priority ambition, details of which can be found in our [Strategic Delivery Plan](#). Through our Engineering Net Zero priority we aim to deliver systems approaches and solutions to:

- use the Earth's resources as efficiently as possible

- eliminate pollution and contributions to landfill

- help deliver a sustainable zero carbon future

The delivery plan identifies specific opportunities and investment activities to work towards a circular economy.

Realising the environmental, economic and social benefits of a circular economy requires new technologies, products, processes, tools and materials. This EPSRC strategic investment will build on related EPSRC and UKRI programmes by focussing on these engineering and physical sciences (EPS) research and innovation challenges.

Although these programmes must have the EPS research challenges of a circular economy as their core focus, we recognise that achieving a circular economy at scale is complex and high-risk, requiring the integration of multiple stakeholders and broad interdisciplinary teams across and beyond the remit of EPSRC. These critical mass investments will provide the scale, flexibility and length of award necessary to support this.

Duration

The duration of this award is up to 5 years.

Funding available

We have up to £12,000,000 available for this funding Opportunity.

Proposals must not exceed £6,000,000 at 80% FEC or 5 years in duration. This means the maximum amount you can apply for at 100% FEC is £7.5 million.

The total cost of the full proposal should be within 10% of that requested in the outline proposal.

Programmes funded through this opportunity are intended to use resources flexibly in a way that maximises their value. This opportunity does not allow for flexible pots of cash or unassigned funds. Instead, funding should be provisionally assigned at the start of the programme. This funding can then be reallocated and redeployed subject to programme needs and the grant terms and conditions.

You can include individual items of equipment between £10,000 and £400,000 in applications if both of the following apply:

- the equipment is essential to the proposed research
- you cannot access appropriate alternative provision

Find out about EPSRC's approach to equipment funding.

You must provide additional justification of the requirement for individual items of equipment between £10,000 and £400,000, and details of the proposed contribution to the cost of the equipment in the Resources and cost justification.

Opportunity objectives

Successful programmes will address EPSRC's strategic aims through the following objectives:

- deliver high quality, novel EPS research addressing timely and strategically important challenges demonstrably driven directly by the vision of a circular economy and its benefits to society, the economy and the environment

- maximise demonstrable impact from the programme in the short, medium and longer term through engagement, collaboration and co-creation with industrial, policy and third sector stakeholders and an active consideration of the wider system in which the programme's research and planned outputs exist

- support the longer-term uptake of circular economy technologies and practices by industrial partners

- maximise quality and impact of the programme through collaborative and interdisciplinary approaches and co-creation with new and existing stakeholders, both academic and non-academic, across and beyond EPSRC's remit

- support the integration of academic research and innovation with local, regional and national government priorities to inform and influence future policy and regulation

- complement existing EPSRC and UKRI investments to significantly grow the UK's EPS capacity and capability in the circular economy

- embed careful consideration of environmental sustainability in all proposed programme outputs and outcomes, research approaches and programme operations throughout the lifetime of the programme

What we expect to see in applications

This funding opportunity will support programmes for which the core vision and primary research challenge are driven directly by the challenges of delivering a circular economy and the economic, social and environmental benefits it enables. Programmes that are relevant to the circular economy but where it is not the core focus and vision are not eligible for this opportunity, and applicants should consider alternative EPSRC opportunities.
The proposed research must demonstrably lie primarily within EPSRC's remit. However, involvement of researchers from other disciplines (including those from other UKRI councils) is welcome and encouraged. Circular economy research is often interdisciplinary by necessity, so applicants are expected to co-create solutions between different disciplines, within and beyond EPSRC's remit, as appropriate.

We will **not** fund programmes where:

- the majority of the research is outside of EPSRC remit. Proposals deemed to have a majority remit within another UKRI council will be rejected. EPSRC reserves the right to make such remit decisions without reference to peer review.

- a circular economy is a beneficiary or potential impact pathway rather than the core focus of the programme

No substantial changes to the proposal's aims, vision or core focus are permitted between the outline and full stages without EPSRC's prior permission.

Programmes must:

- address one or more timely research challenge(s) focussed on a single strategically important theme which is driven directly by the vision of a circular economy

- demonstrate a coherent long-term strategic vision and bring together a collaborative and world-leading academic team with relevant stakeholders to address it

- take a systems approach, considering the wider context in which the proposed research and research outcomes will sit and the trade-offs and unintended consequences of adopting a circular economy in the chosen area

- demonstrate co-creation and collaboration with stakeholders including industry, policy and the third sector to identify timely and strategically important research challenges

- identify and embed clear, realistic and proportionate impact and translation pathways which will maximise demonstrable impact from the programme in the short, medium and longer term

- drive added value as a core focus of the programme by demonstrating synergistic connectivity between partners, disciplines, and workstreams

- use the scale, flexibility and length of the funding to deliver UK-wide national leadership and advocacy and embed creativity and agility into the plans for the programme

- develop the skills of the researchers and partners involved, embedding equality, diversity and inclusion (EDI) throughout the programme, as well as supporting development and training for early career researchers

- embed environmental sustainability throughout the programme, both in research outcomes and in programme operations

EPSRC will accept applications in any sector(s) and/or considering any resource flow(s), but the broader research, business, policy and civic landscapes within which the proposed programme would sit must be considered. Programmes which connect with and contribute to the innovation and sustainable development priorities of local, regional and devolved administrations are encouraged.

Applicants must be able to articulate how they will interact with existing investments and demonstrate how their work will compliment and add value to the existing research and innovation landscape. Programmes addressing resource flows covered by the UKRI NICER programme or other UKRI investments are not excluded from this opportunity, but applicants must demonstrate how their programme would be complementary to these and other UKRI investments and add value to the broader research and innovation landscape.

Programmes can include fundamental and applied research. However, programmes addressing underpinning scientific challenges that only have relevance to the circular economy as a beneficiary or potential impact pathway cannot be submitted as part of the call.

The following articulates some of the key EPS challenges to achieving a circular economy, one or more of which **may** be addressed by a given proposal. It is by no means an exhaustive list and applications need not be restricted to these areas.

- developing our fundamental understanding of how and when to implement circular economic systems and at what geographical and policy scales

- ensuring renewable, reusable, non-toxic resources are utilised efficiently as materials and energy, to ensure positive environmental, economic and social impact

- adopting a systems approach to manufacturing processes and design, using the right materials designed for extended lifetimes through repair and reuse

- utilising waste streams as a source of secondary resources and recovering waste for reuse and recycling

Interdisciplinary approach

Programmes submitted to this opportunity must have a core focus on engineering and physical sciences (EPS) research challenges, and the proposed research must demonstrably lie primarily within EPSRC's remit. However, EPSRC recognises that, in many sectors, circularity cannot be achieved without the involvement of researchers and stakeholders from different disciplines within and beyond EPSRC's remit. Programmes should therefore be co-created and co-delivered with appropriately interdisciplinary collaborators who can provide further understanding of the contextual factors which influence the system in order to:

- enable the design, production and uptake of acceptable, usable and realistic solutions
- improve understanding of feasible translation pathways
- deliver innovative circular economy solutions to achieve real impact

Participation by researchers from disciplines outside EPSRC's remit will be eligible for funding. BBSRC and ESRC may provide co-funding for specific proposals on a case-by-case basis. This will be determined at the full proposal stage.

Where relevant, EPSRC will work with other councils to ensure a representative range of subject expertise is involved in the peer review process. However, please note that as this is an EPSRC opportunity, programmes deemed to have a majority remit within another UKRI council will be rejected. EPSRC reserves the right to make such remit decisions without reference to peer review.

Systems approach

Applicants must place their research in the context of the wider system (technological, economic, social, cultural and environmental) within which the proposed research outputs would sit. These aspects should inform and influence the research direction of the proposed programme throughout its lifetime.

Applicants are not asked to research the entire system or necessarily carry out systems engineering but should:

- define the system(s) they are developing.
- consider the systems that their system will sit within and interact with and the feedback loops this may generate. These may be upstream or downstream of your system and at similar or different scales.
- consider the wider social, legal, regulatory, economic and environmental context.

You should consider questions such as:

- how does your research influence or impact other parts of the system you are developing?
- how could other systems influence or impact your system, technology or process?
- what further research might be needed for your technology or process to have the desired impact in a current or future system? Your programme may not necessarily deliver this further research but it should look to identify it and consider the implications of it.

A shift to a more circular economy provides an opportunity for the UK to achieve more sustainable and clean economic growth and prosperity. However, implementing it within the current UK system may not always be the most appropriate approach. Programmes should consider the risks, costs and trade-offs associated with different materials, technologies and processes, using tools and approaches such as life cycle analysis and impact assessments where appropriate.

Stakeholder engagement

With this funding opportunity EPSRC aims to maximise impact through engagement, collaboration and co-creation with industrial, policy and third sector stakeholders.

Programmes should have a strategy for engaging with stakeholders, both academic and non-academic, across and beyond EPSRC's remit. This should include plans to interact with a new and emerging range of relevant collaborators throughout the lifetime of the grant. Applicants should provide clear evidence of genuine, substantive partnerships, with co-creation and co-delivery of projects and activities in addition to financial contributions.

EPSRC expects programmes to secure significant leverage, both financial and in-kind, from stakeholders. The amount should be commensurate with the sector involved (for example, SMEs are not expected to provide the same level of financial contribution as multinational corporations) but EPSRC expects leverage to grow over the lifetime of the programme as stakeholder relationships progress and new partnerships are formed.

Applicants should consider how they will embed stakeholder interactions in the programme's governance structure. In particular, advice from users must be appropriately utilised in the decision-making strategy to grow diverse user engagement, both in terms of number of users and value of contributions to the programme (financial and in-kind). Relationships with stakeholders should evolve as appropriate as the programme and the research develops.

The research and innovation landscape for circular economy is diverse and reaches across the UK. In recognition of the national role that the awards will play in the EPSRC portfolio, we expect applicants to demonstrate how they will engage and collaborate with circular economy stakeholders across all parts of the UK. Applicants should apply for the resources

they need to enable strong connectivity with all parts of the UK (England, Northern Ireland, Scotland and Wales).

To evidence your strong partnerships, you must include **at least one** project partner letter with letter of support. You may include an unlimited total number of project partners.

Enhancing collaboration

EPSRC expects that programmes of this nature will require the integration of multiple stakeholders and broad interdisciplinary teams. Therefore, to maximise the value of this activity to the wider community, the text from the 'summary' Je-S section for the successful outlines, along with the principal investigator name and institution, can be found in the Additional information section of the [outline opportunity guidance](#).

This aims to support potential additional partners to identify, approach and join programmes. Any investigators involved in outlines that were not invited to the full stage are encouraged to engage with those that are invited, where appropriate, as the full stage proposal interdisciplinary consortia are scoped and developed. EPSRC may consider facilitating conversations between aligned proposals if deemed necessary.

Environmental sustainability

UKRI's [environmental sustainability strategy](#) lays out our ambition to actively lead environmental sustainability across our sectors. This includes a vision to ensure that all major investment and funding decisions we make are directly informed by environmental sustainability, recognising environmental benefits as well as potential for environmental harm.

In alignment with this, UKRI is tackling the challenge of environmental sustainability through our 'building a green future' strategic theme, which aims to develop whole systems solutions to improve the health of our environment and deliver net zero, securing prosperity across the whole of the UK.

Environmental sustainability is a broad term but may include consideration of such broad areas as:
- reducing carbon emissions,
- protecting and enhancing the natural environment and biodiversity,
- waste or pollution elimination,
- resource efficiency and a circular economy.

EPSRC (on behalf of UKRI) expects programmes to embed careful consideration of environmental sustainability at all stages of the research and innovation process and throughout the lifetime of the grant.

In particular, for this funding opportunity programmes should ensure that environmental impact and mitigation of the proposed research approaches and programme operations, as well as the associated programme outputs and outcomes, is considered. Programmes must

also seek opportunities to influence others and leave a legacy of environmental sustainability within the broader operations of their academic and industry partners.

Management and Monitoring

Programmes should:

- have effective management and monitoring arrangements for the investment. This should include a risk management strategy and a strategy for how the flexibility of resources will be managed.
- establish and run an independent advisory board, or equivalent body, to provide advice and recommendations on the strategic, scientific and research direction and activities.
- consider costing in programme management and other administrative support, for example by employing a full-time equivalent programme manager, and not relying on the principal investigator for these duties.
- include plans for the development and promotion of the careers of all team members, including investigators, research assistants, technicians, and any aligned students.

Responsible innovation
You are expected to work within the [EPSRC framework for responsible innovation](#).

International collaboration
If your application includes international applicants, project partners or collaborators, visit [Trusted Research](#) for more information on effective international collaboration.

How to apply

UK Research and Innovation (UKRI) Funding Service

We are running the funding opportunity on the new UKRI Funding Service. You cannot apply for this opportunity on the Joint Electronic Submissions (Je-S) system.

If you do not already have an account with the UKRI Funding Service, you will be able to create one by selecting the 'start application' button at the start of this page. Creating an account is a 2-minute process requiring you to verify your email address and set a password.

If you are a member of an organisation with a research office that we do not have contact details for, we will contact them to enable administrator access. This provides:

- oversight of every UKRI Funding Service application opened on behalf of your organisation

- the ability to review and submit applications

Research offices that have not already received an invitation to open an account should email support@funding-service.ukri.org.

To find out more about the role of research office professionals in the application process, watch a recording of a recent research office webinar on YouTube.

Submitting your application

Applications should be prepared and submitted by the lead research organisation but should be co-created with input from all investigators, and project partners, and should represent the proposed work of the entire consortia.

To apply:

1. Select the 'Start application' button at the start of this page.
2. This will open the 'Sign in' page of UKRI's Funding Service. If you do not already have an account, you'll be able to create one. This is a 2-minute process requiring you to verify your email address and set a password.
3. Start answering the questions detailed in this section of 'How to apply'. You can save your work and come back to it later. You can also work 'offline', copying and pasting into the text boxes provided for your answers.
4. Once complete, use the service to send your application to your research office for review. They'll check it and return it to you if it needs editing.
5. Once happy, your research office will submit it to UKRI for assessment. Only they can do this.

As citations can be integral to a case for support, you should balance their inclusion and the benefit they provide against the inclusion of other parts of your answer to each question. Bear in mind that citations, associated reference lists or bibliographies, or both, contribute to, and are included in, the word count of the relevant section.

Deadline

EPSRC must receive your application by 13 June 2023 at 4.00pm UK time.
You will not be able to apply after this time.
You should ensure you are aware of and follow any internal institutional deadlines that may be in place.

EPSRC, as part of UKRI, will need to collect some personal information to manage your funding service account and the registration of your funding applications.
We will handle personal data in line with UK data protection legislation and manage it securely.
For more information, including how to exercise your rights, read our privacy notice.

EPSRC will publish the outcomes of this funding opportunity at https://gow.epsrc.ukri.org/.

If your application is successful, some personal information will be published via the UKRI Gateway to Research.

UKRI Funding Service: section guidance

Summary

In plain English, provide a summary that can be sent to potential reviewers to determine if your proposal is within their field of expertise.

This summary may be made publicly available on external facing websites, so please ensure it can be understood by a variety of readers, for example:

- opinion-formers
- policymakers
- the general public
- the wider research community.

Guidance for writing a summary:

Succinctly describe your proposed work in terms of:

- its context
- the challenge the project addresses and how it will be addressed
- its aims and objectives
- its potential applications and benefits

Word count: 550

Applicants

List the key members of your team and assign them roles, for example:

- principal investigator
- business partner
- co-investigator
- researcher
- technician

You should only list 1 individual as principal investigator.

Non-academic staff

EPSRC recognises that, given the scale of proposals submitted to this opportunity, applicants may wish to include non-academic staff such as programme managers or administrators. Due to the evolving nature of TFS and its continual development, for this funding opportunity you should add non-academic or administrative staff under the "business partner" staff category. Please do **not** add industry project partners in this category, as these should be added as a "project partner" instead.

Section: Vision and approach

Question: **What are you hoping to achieve with and how will you deliver your proposed work?**

What the assessors are looking for in your response

For the Vision, explain how your proposed work:

- addresses one or more research challenge(s) focussed on a single strategic theme driven by the vision of a circular economy
- is of excellent quality and importance within or beyond the field(s) or area(s)
- has the potential to advance current understanding, generates new knowledge, thinking or discovery within or beyond the field or area
- is timely given current trends, context and needs
- impacts world-leading research, society, the economy and/or the environment

For the Approach, explain how you have designed your work so that it:

- is effective and appropriate to achieve your objectives
- is feasible, and comprehensively identifies any risks to delivery and how they will be managed
- if applicable, uses a clear and transparent methodology
- if applicable, summarises the previous work and describes how this will be built upon and progressed
- describes how your, and if applicable your team's, research environment (in terms of the place, its location, and relevance to the programme) will contribute to the success of the proposed work

Within the Approach section we also expect you to:
- demonstrate access to the appropriate services, facilities, infrastructure, or equipment to deliver the proposal
- provide a detailed and comprehensive project plan including milestones and timelines in the form of a Gantt chart or similar (additional 1-page A4)

This section is submitted as a single 6-page PDF attachment covering the 'Vision' and 'Approach', with an additional page allowed for a project plan as described above.
The document must have single line spacing, margins of at least 2cm and be typed using Arial 11pt, or another 'sans serif' font with an equivalent size to Arial 11pt.

Section: Co-created research programme

Question: **How have you co-created and designed your research programme to maximise the impact of the critical mass activity?**

What the assessors are looking for in your response

Explain how you have designed your research programme so that it:

- has been co-created and will be co-delivered in partnership with relevant stakeholders
- identifies and embeds clear, realistic and proportionate pathways to maximise translation of outputs into outcomes and impacts of all types
- embeds a systems approach, considering the wider context in which the proposed research and research outcomes will sit and the trade-offs and unintended consequences of adopting a circular economy
- drives added value as a core focus of the programme by demonstrating synergistic connectivity between partners, disciplines, and workstreams
- is positioned at the forefront of your chosen research area, displaying leadership and advocacy on a national scale

Word limit: 1000

You can include up to three images, each no larger than A4 and accompanied by no more than 20 words, in a single PDF that's a maximum of 8MB. We suggest you label them Figure 1, Figure 2 and Figure 3, then refer to them accordingly in your written response.

For the file name, use the unique funding service number the system gives to your proposal (when you create an application) immediately followed by the words "Co-created research programme". Then use the upload button below.

If the attachment does not meet these requirements, the proposal will be rejected.

Unless specifically requested, please do not include any personal data within the attachment.

Once you have uploaded, mark this section as complete and move to the next one.

Section: Programme leadership and management

Question: **What are your plans for appropriate management and leadership of this critical mass programme?**

What the assessors are looking for in your response

Explain how you intend to:

- manage and monitor the progress of the programme, including consideration of how the flexibility of resources will be managed
- embed creativity and agility into the plans for the programme in order to respond to a changing landscape
- develop and progress the careers of all team members, including investigators, research assistants, any aligned students, technicians and other non-academic staff
- embed considerations of equality, diversity and inclusion at all levels and in all aspects of the programme

- embed considerations of environmental sustainability throughout the programme, in both the proposed research outcomes and programme operations
- influence others and leave a legacy of environmental sustainability within the broader operations of your academic and industry partners

Word limit: 1000

You can include up to three images, each no larger than A4 and accompanied by no more than 20 words, in a single PDF that's a maximum of 8MB. We suggest you label them Figure 1, Figure 2 and Figure 3, then refer to them accordingly in your written response.

For the file name, use the unique funding service number the system gives to your proposal (when you create an application) immediately followed by the words "Programme leadership and management". Then use the upload button below.

If the attachment does not meet these requirements, the proposal will be rejected.

Unless specifically requested, please do not include any personal data within the attachment.

Once you have uploaded, mark this section as complete and move to the next one.

Section: Your organisation's support

Question**: provide details of support from your research organisation.**

What the assessors are looking for in your response

In the textbox, provide a Statement of Support from your research organisation detailing why the proposed work is needed. This should include details of any matched funding that will be provided to support the activity and any additional support that might add value to the work.

Reviewers will be looking for a strong statement of commitment from your research organisation.

EPSRC recognises that in some instances, this information may be provided by the Research Office, the Technology Transfer Office (TTO) or equivalent, or a combination of both.

You must also include the following details:
- a significant person's name and their position, from the TTO or Research Office, or both
- office address or web link

Word limit**:** 1000

Section: Project partners: contributions

Question**: provide details about any project partners' contributions using the template provided.**

What the assessors are looking for in your response

If you do not have any project partners, simply add 'N/A' into the text box, mark this section as complete and move to the next section.

If you do have project partners, download and complete the project partner contributions template (DOCX, 52KB) then copy and paste the table within it into the text box below.

Ensure you have obtained prior agreement from project partners that, should you be offered funding, they will support your project as indicated in the template.

Word limit: 500

Section: Project Partners: letters (or emails) of support

Question**: upload a single PDF containing the letters or emails of support from each partner you named in the table in the previous 'contributions' section.**

What the assessors are looking for in your response

If you do not have any project partners, simply add 'N/A' into the text box, mark this section as complete and move to the next section.

If you have named project partners in the previous 'contributions' section, enter the words 'attachment supplied' in the text box below.

Each letter or email you provide should:
- confirm the partner's commitment to the project
- clearly explain the value, relevance and possible benefits of the work to them
- describe any additional value that they bring to the project
- please refer to EPSRC's guide for more guidance.

Please do not provide letters of support from host and Co-Investigator's research organisations.

For audit purposes, UKRI requires formal collaboration agreements to be put in place if an award is made.

Upload a single PDF containing the letters or emails of support from each partner you named in the table in the previous 'contributions' section.

Unless specifically requested, please do not include any personal data within the attachment.

Word limit: 50

Section: Applicant and team capability to deliver

Question**: Why are you the right individual or team to successfully deliver the proposed work?**

What the assessors are looking for in your response

Evidence of how you, and if relevant your team, have:
- the relevant experience (appropriate to career stage) to deliver the proposed work
- the right balance of skills and expertise to cover the proposed work
- the appropriate leadership and management skills to deliver the work and your approach to develop others

Use the Résumé for Research and Innovation (R4RI) format to showcase the range of relevant skills you, and if relevant your team (investigators, researchers, other (technical) staff for example research software engineers, data scientists and so on, and partners), have and how this will help to deliver the proposed work. You can include individuals' specific achievements but only choose past contributions that best evidence their ability to deliver this work.

Complete this section using the R4RI module headings listed below. You should use each heading once and include a response for the whole team, see the UKRI guidance on R4RI. You can enter N/A for any you think irrelevant, and will not be penalised for doing so, but it is recommended that you carefully consider the breadth of your experience:

- Contributions to the generation of new ideas, tools, methodologies, or knowledge
- The development of others and maintenance of effective working relationships
- Contributions to the wider research and innovation community
- Contributions to broader research or innovation users and audiences and towards wider societal benefit
- Additions (you can use this heading to provide information which provides context to the wider application, such as detail of career breaks - it is not a requirement)

You should complete this as a narrative and you should avoid CV type format.

Word limit: 1000

Section: Ethics and Responsible Research and Innovation (RRI)

Question**: What are the ethical or RRI implications and issues relating to the proposed work? If you do not think that the proposed work raises any ethical or RRI issues, explain why.**

What the assessors are looking for in your response

Using the text box, demonstrate that you have identified and evaluated the relevant ethical or responsible research and innovation considerations, and how you will manage them.

If you are collecting or using data you should identify:
- any legal and ethical considerations of collecting, releasing or storing the data including consent, confidentiality, anonymisation, security and other ethical considerations and, in particular, strategies taken to not preclude further re-use of data
- formal information standards with which study will be compliant

Word limit: 500

Section: Genetic and Biological Risk

Question**: Does your proposed research involve any genetic or biological risk?**

What the assessors are looking for in your response

If not, enter 'N/A' into the text box, mark this section as complete and move on to the next section.

In respect of animals, plants or microbes, are you proposing to:
- use genetic modification as an experimental tool, like studying gene function in a genetically modified organism
- release genetically modified organisms
- ultimately develop commercial and industrial genetically modified outcomes?

If yes, provide the name of any required approving body and state if approval is already in place. If it is not, provide an indicative timeframe for obtaining the required approval.

Identify the organism or organisms as a plant, animal or microbe and specify the species and which of the three categories the research relates to.

Identify the genetic and biological risks resulting from the proposed research, their implications and any mitigation you plan on taking. Assessors will want to know you have considered the risks and their implications to justify that any identified risks do not outweigh any benefits of the proposed research.

Word limit: 700

Section: Research involving the use of animals

Question**: Does your proposed research involve the use of vertebrate animals or other organisms covered by the Animals (Scientific Procedures) Act?**

What the assessors are looking for in your response

If not, enter 'N/A' into the text box, mark this section as complete and do the same for the next question.

If you are proposing research that requires using animals, write 'Yes' in the text box. Then, [download and complete this document](#) (DOCX, 74KB), which contains all the questions relating to research using vertebrate animals or other Animals (Scientific Procedures) Act 1986 regulated organisms. Then, save and upload it as a PDF.

Word limit: 10

Section: Conducting research with animal overseas

Question**: Will any of the proposed animal research be conducted overseas?**

What the assessors are looking for in your response

If not, enter 'N/A' in the text box, mark as complete and move to the next question.

If you are proposing to conduct overseas research, it must be conducted in accordance with welfare standards consistent with those in the UK, as per [Responsibility in the Use of Animals in Bioscience Research](#), on page 14.

You should also ensure all named applicants in the UK and overseas are aware of this requirement and provide a statement below to confirm that:
- all named applicants are aware of the requirements and have agreed to abide by them
- this overseas research will be conducted in accordance with welfare standards consistent with the principles of UK legislation
- the expectation set out in ['Responsibility in the Use of Animals in Bioscience Research'](#) will be applied and maintained
- appropriate national and institutional approvals are in place.

Overseas studies proposing to use non-human primates, cats, dogs, equines or pigs, will be assessed during [NC3Rs review](#) of research proposals. The required information should be provided by completing the template from the question 'Research Involving the use of animals'.

For studies involving other species listed below, you should select the relevant checklist or checklists from the list below, complete it and save it as a PDF and use the file upload feature to attach.

- Additional questions on the use of rodents overseas.
- Additional questions on the use of rabbits overseas.
- Additional questions on the use of sheep overseas.
- Additional questions on the use of goats overseas.
- Additional questions on the use of pigs overseas.
- Additional questions on the use of cattle overseas.
- Additional questions on the use of Xenopus laevis and Xenopus tropicalis overseas.

If you need to complete more than one checklist, you should merge them into a single document and then save it as a PDF before uploading it.

Word limit: 700

Section: Research involving human participation

Question: **Will the project involve the use of human subjects or their personal information?**

What the assessors are looking for in your response

If not, enter 'N/A' into the text box, mark this section as complete and move on to the next section.

If you are proposing research that requires the involvement of humans subjects, provide the name of any required approving body and whether approval is already in place. Then, justify the number and the diversity of the participants involved, as well as any procedures.

Provide details of any areas of substantial or moderate severity of impact.

Word limit: 700

Section: Research involving human tissues or biological samples

Question: **Does your proposed research involve the use of human tissues, or biological samples?**

What the assessors are looking for in your response

If not, enter 'N/A' into the text box, mark this section as complete and move on to the next section.

If you're answering 'yes', provide the name of any required approving body and whether approval is already in place.

You should justify the use of human tissue or biological samples specifying the nature and quantity of the material to be used and its source.

Word limit: 700

Section: References

Question: **List the references you've use to support your application**.

What the assessors are looking for in your response

Ensure your application is a self-contained description. You can provide hyperlinks to relevant publications or online resources. However, assessors are not obliged to access the information they lead to or consider it in their assessment of your application. You must not include links to web resources in order to extend your application. If linking to web resources, to ensure the information's integrity is maintained include, where possible, persistent identifiers such as digital object identifiers.

Word limit: 250

Section: Facilities

Question: **Does your proposed research require the support and use of a third party facility?**

What the assessors are looking for in your response

If not, enter N/A into the text box, mark this section as complete and move on to the next section.

If you will need to use a facility, you should follow your proposed facility's normal access request procedures. Also, where prior agreement is required, ensure you obtain their agreement that, should you be offered funding, they will support the use of their facility on your project. In the text box below, provide:
- the name of Facility
- a description of the type of access they are granting you, for example: hours, units or value requested
- an explanation of how you will use the facility in your research

Do not put the facility contact details in your response.

Word limit: 100

Section: Resources and cost justification

Question: **What will you need to deliver your proposed work and how much will it cost?**

What the assessors are looking for in your response

Download **this document,** complete it and then upload it as explained.
Using the text box, demonstrate how the resources you anticipate needing for your proposed work:

- are comprehensive, appropriate, and justified
- represent the optimal use of resources to achieve the intended outcomes
- maximise potential outcomes and impacts

This section should not simply be a list of the resources requested, as this will already be given in the detailed 'costs' table. Costings should be justified on the basis of full economic costs (FEC) of the project, not just on the costs expected from UKRI. For some items we do not expect you to justify the monetary value, rather the type of resource, such as amount of time or type of staff requested.

Where you do not provide adequate justification for a resource, we may deduct it from any funding awarded.

You should identify:
- support for activities to either increase impact, for public engagement, knowledge exchange and/or to support responsible innovation
- support for access to facilities, infrastructure and/or procurement of equipment
- support for preserving, long-term storage, or sharing of data
- support from your organisation or partner organisations and how that enhances value for money

Word limit: 1000

Section: Sensitive information

Question: **Is there sensitive information you need to share with UKRI that you don't want shared with assessors?**

What the assessors are looking for in your response

If not, enter 'N/A' into the text box, mark this section as complete and move on to the next section.

If you, or a key team member, need to tell us something you wish to remain confidential, please enter the words 'email sent' in the text box below.

Then contact [the Funding Service helpdesk](#). Include your application name and number in the subject line, after the pre-populated words 'sensitive information'.

Typical examples of confidential information include:
- applicant is unavailable until a certain date (for example due to parental leave)
- declaration of interest
- additional information about eligibility to apply that would not be appropriately shared in the 'applicant and team capability' section
- conflict of interest for UKRI to consider in reviewer or panel participant selection
- the application is an invited resubmission

For information about how UKRI handles personal data please see [UKRI's privacy notice](#).

Word limit: 10

How we will assess your application

Assessment process

We will assess your application using the following process.

Peer review

We will invite experts to review your application independently, against the specified criteria for this opportunity. Each criterion directly corresponds to the assessment questions answered but consideration should also be given to the additional evidence provided such as project partner letters of support or the host organisation statement of support.

You will have 10 days to respond to reviewers' comments.

Interview

An expert interview panel will conduct interviews with applicants after which the panel will make a funding recommendation.

We expect interviews to be held in w/c 16 October 2023 – exact dates will be confirmed as soon as possible.

EPSRC will make the final funding decision.

Feedback

We will give feedback with the outcome of your application.

Principles of assessment

We support the San Francisco [declaration on research assessment (DORA)](#) and recognise the relationship between research assessment and research integrity.

Find out about the [UKRI Principles of Assessment and Decision Making (PDF, 176KB)](#).

We reserve the right to modify the assessment process as needed.

Assessment criteria

Section: Vision and Approach
Have the applicants demonstrated what they are hoping to achieve with their proposed work and how they will deliver a vision for a circular economy?
Have the applicants demonstrated how they will deliver their proposed work?

Section: Co-created research programme
Have the applicants demonstrated how their research programme has been co-created and designed to maximise the impact of the critical mass activity?

Section: Programme leadership and management
Have the applicants demonstrated their plans for appropriate management and leadership of this critical mass programme?

Section: Applicant and team capability to deliver
Have the applicants provided evidence of why they are the right individual or team to successfully deliver the proposed work?

Section: Resources and cost justification
Have the applicants explained what they will need to deliver the proposed work and how much it will cost?

Section: Ethics and Responsible Research and Innovation (RRI)
Have the applicants identified and evaluated the relevant ethical and/or responsible research and innovation considerations, and how they will be managed?

Contact

Get help with your application

For help on costings and writing your application, contact your research office. Allow enough time for your organisation's submission process.

Ask about this funding opportunity

Email: support@funding-service.ukri.org
We aim to respond to emails within 2 working days.

Phone: 01793 547490
Our phone lines are open:
- Monday to Thursday 8:30am to 5:00pm
- Friday 8:30am to 4:30pm

Additional information

Links to wider programme or area:

There are many different definitions of a circular economy. At its heart, UKRI considers it to be about:

- producing less
- keeping the products, materials and resources we do use and produce in circulation at their highest value for as long as possible
- recovering resources after use.

The UKRI 2022 to 2027 strategy aims to drive the development, adoption and diffusion of green technologies, building a sustainable circular economy and a greener future for the UK as we move to net zero. More circular use of resources is crucial to:

- achieving net zero carbon emission targets
- reducing resource consumption, waste and pollution harmful to biodiversity
- enhancing health and resource security
- offering the UK significant economic, social and environmental benefits.

Supporting the interdisciplinary, whole systems, engineering, physical sciences, maths and information and communications technology research and innovation needed to deliver a circular economy is a priority for EPSRC. It directly delivers against EPSRC's Engineering Net Zero priority ambitions to collaborate across UKRI to deliver whole systems approaches and solutions to:

- reduce resource use
- eliminate pollution
- deliver a sustainable zero carbon future.

UKRI has previously contributed to the development of the UK's circular economy research and innovation community through funding opportunities such as:

- the [Plastics Research Innovation Fund](#), led by EPSRC
- the [National Interdisciplinary Circular Economy Research (NICER)](#) Strategic Priorities Fund programme, led by EPSRC
- the [Smart Sustainable Plastic Packaging (SSPP) challenge](#) Industrial Strategy Challenge Fund programme, led by NERC and Innovate UK
- the [GCRF Plastics Programme](#), led by NERC and Innovate UK.

This EPSRC funding opportunity will complement the circular economy research and innovation already being done by the above investments and will help contribute further to a growing circular economy community in the UK.

Grant additional conditions

We award funding under the standard [UKRI grant terms and conditions](#). In addition to these, additional grant conditions will be applied (see annex 1). We reserve the right to amend these or add further conditions, up to the point of issuing the grant. Full details of the terms and conditions applying to your award will be listed in the grant offer letter.

Related content

Provide links to supplementary information. You can include links to:

- guidance on the use of animals or a facility
- a workshop or programme page that will give the user more context.

These will be in the [purple 'Related content' box on the right-hand side of the page](#).

Supporting links

[UKRI policies and standards](#)
[Good research resource hub](#)
[EPSRC Circular Economy theme](#)
[Resubmissions](#)
[Repeatedly unsuccessful applications](#)
[Equipment](#)
[Use of animals](#)
[Responsible research and innovation](#)
[Ethical considerations](#)
[Equality, Diversity and Inclusion](#)

[Reviewer selection](#)
[Conflicts of interest](#)
[San Francisco Declaration on Research Assessment (DORA)](#)

Related opportunities

If relevant, provide links to upcoming and future rounds, or a related funding opportunity.

These will be in the [purple 'Related opportunities' box on the right-hand side of the page](#).

Please see these webpages for the [outline stage](#) guidance for this call

Annex 1: additional grant conditions

GAC 01 Governance EPSRC will nominate a member of UKRI staff (The Project Officer) who will be your primary point of contact. The Project Officer will ensure that the project is being run in accordance with the terms and conditions and in line with financial due diligence. The Project Officer(s) should have access to all documentation of Governance and Reporting bodies, in so far as it relates to the administration and application of the grant. As funding administrators, all UKRI staff have agreed to maintain the confidentiality required by all parties involved in EPSRC funded research. This grant must establish and run an Independent Advisory Board, or equivalent body, to oversee the running of the project and provide advice on the strategic direction and activities of the project. The terms of reference and membership of this group (at least 50% independent membership and an independent Chair) should be agreed with the EPSRC. The Project Officer will also be expected to attend and participate in Advisory Board and other appropriate meetings for the duration of the grant.

GAC 02 Management Structure The Grant Holder should have established an appropriate management structure with clear lines of responsibility and authority to oversee the day-to-day running of the project. This should be in place within six months of the start date of the grant. The terms of reference and management structure must be approved by EPSRC in advance, as must any changes to this structure. The Project Officer will be EPSRC's main contact with the project, and must receive all meeting minutes of the management committees. EPSRC reserve the right to attend any meetings.

GAC 03 Collaboration Agreements Notwithstanding RGC 12 Exploitation and Impact, effective collaborative agreements between both University and non-University partners and organisations must be in place and regularly updated as applicable. The agreement should detail:
- the process of any flexible allocation of resources throughout the project,
- accessibility and sharing of research outputs and outcomes,
- ownership of intellectual property and
- rights to exploitation.
It is the responsibility of the Research Organisation to put such an agreement in place before the research begins. Arrangements for collaboration and/or exploitation must not prevent the future progression of research and the dissemination of research outputs and outcomes in accordance with academic custom and practice, nor should they be in conflict with the Research Councils' terms and conditions. The Project Officer must be informed within three months of the start of the grant, that the collaboration agreement is in place and has been signed by all partners and/or the progress made (unless some alternative timeline has been agreed with EPSRC beforehand). If sufficient progress has not been made within three months of the start of the grant, EPSRC reserves the right to enact RGC 13.

GAC 04 Publicity and Branding In addition to RGC 12.4 Publication and Acknowledgement of Support, the Grant Holder must make reference to the EPSRC Programme Grant Scheme and UKRI funding and include the UKRI-EPSRC logo and relevant branding on all online or printed materials (including press releases, posters, exhibition materials and other publications) related to activities funded by this grant.

GAC 05 This grant consortium is expected to take a leading role in national policy and debate in relation to circular economy research. In this context, the consortium is expected to support and contribute to Our strategies and coordination as requested by Us, and engage with other relevant investments where appropriate.

GAC 06 Equality, Diversity and Inclusion In addition to RGC 3.4, You are expected to prepare a full equality diversity and inclusion plan for the duration of this grant to demonstrate best practice in equality, diversity and inclusion throughout the lifetime of this funding award.

GAC 07 Project Review In addition to the requirements set out in standard UKRI grant conditions RGC 7.4 Research Monitoring and Evaluation and 7.5 Disclosure and Inspection, We reserve the right to instigate a review of all or part of the grant at any stage during the lifetime of the award as well as after the grant has finished. We will give you due notice of the date of any review and will provide details of the Terms of Reference and documentation required. Any review will be conducted by an expert panel, which will make recommendations to us for the grant's future.

GAC 08 Change of Principal Investigator In addition to RGC 7.3, this award is made on condition that any requests to change the grant holder and/or co-investigator will require prior approval from Us. We must be contacted in writing and prior approval sought before this change can be made. To facilitate any changes of this nature the case must be made for why a new principal investigator is required. Requests for such a change are to be submitted via the Grant Maintenance facility in Joint Electronic System (Je-S). We will then consider and inform You of their decision.