



## Quick Reference

Please note that you must read the full Call document for guidance before submitting your proposal

### Interdisciplinary Circular Economy Hub

Call type: Invitation for proposals

Closing date: 16:00 04 August 2020

**Funding Available:** up to £3.27M (80% FEC) for one successful grant for up to 45 months of funding starting 01 January 2021.

**How to apply:** This is the second of a two-stage process. **This is an invited call and only the successful Interdisciplinary Circular Economy Coordinators appointed from the first phase are eligible to apply as PIs.** The Coordinators must submit a full proposal by 16:00 04 August 2020, via Je-S.

**Assessment Process:** The proposal will undergo postal peer review before consideration by an interview panel.

#### Key Dates:

Activity	Date
Deadline for Full Proposals	04 August 2020
Interview Panel	w/c 02 November 2020
Funding decision	November 2020
Grant start date	01 January 2021

UKRI aims to adhere to the key dates as published; however, there may be exceptions where the panel meetings may have to change due to panel member availability.

#### Additional information:

The UK has potential to grow and prosper sustainably by transitioning to a more Circular Economy, where resources are processed with sustainability, waste minimisation and efficiency in mind, and where product lifecycles are optimised to generate more economic and social value including by recycling and/or reuse. However, this transition requires clear, evidence-based, implementation pathways, with broad underpinning research evidence. It must provide not only technical, technological and scientific advances, but also the social, behavioural,

cultural, ethical, environmental, economic, legal and regulatory understanding required to support a successful transition. The UK Government has committed to delivering a more resource efficient economy in its Resources and Waste Strategy for England. To address this, the £30 million UK Research and Innovation (UKRI) Interdisciplinary Circular Economy programme has been developed by the Arts and Humanities Research Council (AHRC), Biotechnology and Biological Sciences Research Council (BBSRC), Economic and Social Research Council (ESRC), Engineering and Physical Sciences Research Council (EPSRC), Natural Environment Research Council (NERC), and Innovate UK with support from the government's Department for Environment, Food and Rural Affairs (DEFRA) and the Department for Business, Energy and Industrial Strategy (BEIS).

The programme will support an integration Hub through this call, and up to five interdisciplinary Centres through the call being run concurrently. The successful Coordinators, appointed through a previous call, are expected to have convened the interdisciplinary community to write one proposal for the Interdisciplinary Circular Economy Hub, with up to £3.27m (at 80% FEC) of funding available for up to 45 months from 1 January 2021.

UKRI welcomes and encourages an application involving any discipline. This call is being run by EPSRC on behalf of the UKRI Councils listed above.

There are specific requirements, such as spend dates and monitoring & evaluation. These will be reflected in specific grant conditions.

**Contacts:**

Phone numbers are not provided as UKRI staff are currently working from home. However UKRI would welcome phone calls if arranged by email.

[Circular.economy@epsrc.ukri.org](mailto:Circular.economy@epsrc.ukri.org) (general enquiries)

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JeS Helpdesk, 01793 44 4164, [JeSHelp@je-s.ukri.org](mailto:JeSHelp@je-s.ukri.org)



Engineering and  
Physical Sciences  
Research Council

## Interdisciplinary Circular Economy Hub

**Call type: Invitation for proposals**

**Closing date: 16:00 04 August 2020**

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### Summary

**Note that minor changes were made to this call document in light of the Covid-19 situation, primarily to delay the submission date by one month. These changes are summarised in the Change Log section.**

This UK Research and Innovation (UKRI) Interdisciplinary Circular Economy Hub call is the second in a two-stage process:

- The first stage was a competition to identify the appropriate Coordinator (or co-Coordinators) who will act as thought leaders, ambassadors, and consensus builders for developing an interdisciplinary Circular Economy

community, facilitating the development of Circular Economy strategies and approaches.

- At this second stage, the successful Coordinators are invited to prepare a single full application for the Interdisciplinary Circular Economy Hub and will need to submit this application by 16:00 04 August 2020. **Only the successful Coordinators are eligible to apply to this call as PIs.**

If this proposal is successful following peer review, the Coordinators will receive up to 45 months of funding (up to £3.27m, at 80% FEC) to lead the Hub.

The Hub will form part of the £30 million UKRI Interdisciplinary Circular Economy programme, collaboratively developed by the Arts and Humanities Research Council (AHRC), Biotechnology and Biological Sciences Research Council (BBSRC), Economic and Social Research Council (ESRC), Engineering and Physical Sciences Research Council (EPSRC), Natural Environment Research Council (NERC), and Innovate UK with support from the government's Department for Environment, Food and Rural Affairs (DEFRA) and the Department for Business, Energy and Industrial Strategy (BEIS). The programme will support the Coordinators and interdisciplinary integration Hub, alongside up to five interdisciplinary Centres, and UKRI delivery of community building events. The programme is designed to provide the underpinning research to enable the transition to a more Circular Economy.

UKRI are running a concurrent call to establish Interdisciplinary Circular Economy Centres, each focused on a different nationally important resource flow. The Hub will be expected to work with the Centres (and vice versa), to integrate the overall programme.

The Hub will provide national leadership and coordination, driving knowledge exchange and whole-systems learning across the Circular Economy investments funded under this programme and the wider research and innovation landscape (with academic, policy, consumer, third sector and business stakeholders). The Hub must deliver actionable solutions and demonstrable impact within the lifetime of the programme as well as beyond and support the successful Centres to do the same. The Hub vision should therefore be designed and delivered in partnership with the broad interdisciplinary research community and relevant users, including industry and government (national and, where appropriate, regional and/or local).

## **Background**

Links to key policy, evidence and other reference documents (including those referred to in this section) can be found in Annex 1.

The UK economy is currently too linear: virgin raw material resources are turned into products, used and often disposed of as waste. Without significant change in how resources are managed, raw material consumption is set almost to double by 2060 (OECD – Global Material Resources Outlook to 2060) as the global economy expands and living standards rise. This will increase pressure on the environment even more so than today.

The UK Government recognises the benefits of adopting more circular approaches in several key strategies:

- In the Industrial Strategy, Government set its ambition to double resource productivity by 2050 and work towards zero avoidable waste by 2050; the Growing the Bioeconomy strategy sets out the opportunity for the bioeconomy to support these aims.
- In the Clean Growth Strategy, Government announced their aim to work towards zero food waste to landfill by 2030.
- In the 25 Year Environment Plan, Government announced it would work towards zero avoidable plastic waste by 2042, reform producer responsibility schemes and accelerate the shift to consistent recycling collections.
- The Resources and Waste Strategy for England sets out the UK Government's commitment to a more resource efficient economy, where resource usage is optimised, and waste avoided.

The overarching objective of the Government's Resources and Waste Strategy is to reduce adverse impacts of resource use on natural capital – from extraction, disposal and greenhouse gas emissions associated with production, consumption and waste management. There are also resource security considerations. The Strategy states that the Government's preferred model is a circular economy approach. It brings out the importance of the waste hierarchy in achieving this goal, placing emphasis on preventing waste, then reuse followed by recycling/material recovery, waste to energy and landfill.

The programme also aligns with the goals of the Scottish Government's Zero Waste Plan, the Environment (Wales) Act, and the Investment Strategy NI.

A shift to a more circular economy, where resources are processed with sustainability, waste minimisation and efficiency in mind and where products are designed to encourage optimal utilisation and then recycling/repurposing/reuse, provides an opportunity for the UK to achieve more sustainable and clean economic growth and prosperity. While all predictions are uncertain, the circular economy value opportunity has been estimated as being worth \$4.5 trillion worldwide by 2030 (Accenture).

Key aspects of a circular economy can include:

- resource efficiency in production through greater use of industrial symbiosis systems;
- design of products so they are durable, repairable and recyclable or for buildings, to be repurposable and disassemblable;
- systems for sharing, re-use and resale including product servitisation systems;
- material substitution, recovery and recycling.

A more circular economy can achieve greater sustainability and security of material supply and leave economic activity less vulnerable to virgin raw material price fluctuations or supply shortages. It can lead to development of innovative processes, systems and products that use resources more productively, and minimise waste. A more circular economy reduces pressure on natural capital

stocks and on the environment as a waste sink, with potential environmental and social benefits such as improvements in health, wellbeing and natural habitats.

Transition to a circular economy requires significant advances in current knowledge and understanding. It requires the ability to understand and reconfigure whole-systems and change business practices, supply chains and market structures. It also requires knowledge of how people experience and engage with resources and products and what influences their behaviour. It must address the implications of how new business models and approaches would be financed and how these should interact with the regulatory framework. Any outcomes need to also consider the ethical, public acceptability and responsible innovation aspects from the start of the research activities.

Importantly, consideration also needs to be given to the risks and trade-offs associated with the circular economy. These include the consequences for certain sectors and employment levels, how circularity relates to product safety, considerations of environmental impact of new products and processes, and how the risks can be mitigated, and solutions identified to enable a stable transition. Circularity is appropriate where it leads to the desired outcomes and does not cause adverse impacts such as increasing overall greenhouse gas emissions. This consideration of risks and trade-offs as well as benefits needs systems-wide, interdisciplinary thinking, with action across business, government and society.

The UK has an excellent and internationally recognised research base across arts and humanities, biological, engineering, environmental, physical and social sciences. This research base is well-placed to enable the formation of interdisciplinary communities that will be required to address knowledge gaps relating to the circular economy. However, many current activities focus on a specific technology or economic sector, or part of the system – and these individual activities are often not joined up.

Opportunities exist to gain benefits from circular approaches for many resource flows within and across multiple economic sectors. As all resources – and their related waste streams, uses and sector contexts – have their own supply chain and stakeholders, each will have their own particular challenges that will inform where and when new approaches to circularity are appropriate, with a particular need for cross-sectoral learning and collaboration.

## **Programme objectives**

This programme will build an interdisciplinary circular economy research and innovation community that will co-produce knowledge and advance understanding of the whole-system drivers of downstream outcomes. This will support policymakers and industry with frameworks to make more effective evidence-based decisions, and develop clear implementation pathways. It will be used to accelerate innovative solutions needed to enable change, and support strong national leadership and coordination facilitating cross-sector stakeholder engagement.

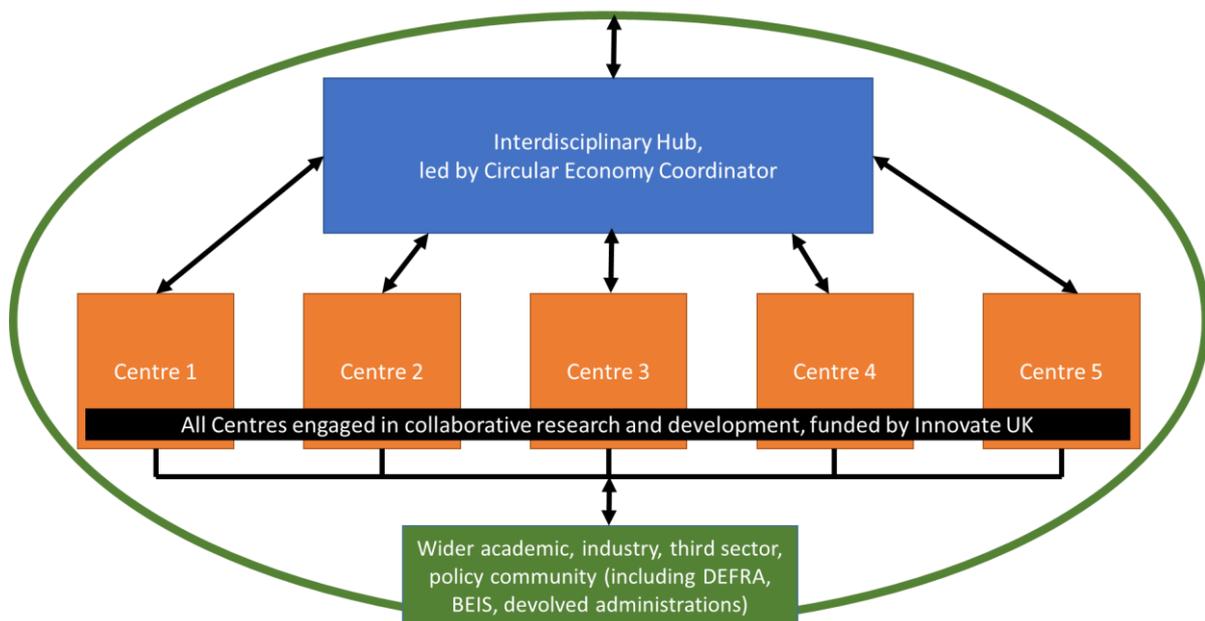
The programme has three key objectives, to:

1. Accelerate understanding and solutions to enable circularity of specific resource flows (including related waste streams and uses, and within sector contexts), by:

- Identifying opportunities for change at different stages within the whole-system (e.g. material supply, design, value and function, manufacturing, reuse and recycling, resource recovery, waste) and across research, policy, business and individual consumers – and delivering pathways for change within resource flows and related waste streams and uses, through comprehensive fundamental analysis. It will include consideration within and across sector contexts.
  - Enabling identification, quantification and assessment of the environmental, social, cultural, economic, behavioural and technical benefits, risks, costs and trade-offs associated with the circular economy, and how these are valued and understood by different actors
  - Supporting Government, businesses, the third sector and consumers, to improve outcomes, including evidence to inform policy decisions, and to understand the barriers to change and how to overcome them. This will take on board the full range of considerations from environmental and resource security benefits to economic benefits;
  - Accelerating the implementation of new solutions to improve sustainability and reduce environmental impacts (e.g. in design, business/retail models, industrial dynamics, materials, (re)manufacturing and recycling processes, life cycle analysis, natural capital approaches, and cross-cutting technologies), and measures to encourage, incentivise and address barriers to adoption of these solutions (e.g. regulation, taxes and subsidies, behavioural interventions)
  - Offering further understanding of behaviour, values and behavioural change (including causal understanding from experiments) across the whole-system to increase the relevance and uptake of solutions.
  - Providing fundamental understanding of feasible transformation pathways where many agents interact to bring about circularity (consumers, business, third sector, government).
2. Provide national leadership, coordinate and drive knowledge exchange across the programme as a whole and with policy, consumer, third sector and business stakeholders, by:
- Consolidating cross-Centre learning and creating a common understanding of definitions and language for the tools used to deliver circularity (e.g. life cycle analysis, business models, understanding decision making and design);
  - Undertaking comprehensive whole-system research on circularity and examining interrelationships between resource flows and sectors with consideration for specific users and their needs, as well as how new business models can be financed and how regulatory systems may need to evolve;
  - Bringing in expertise from UKRI-wide programmes and resources in emerging fields such as big data, artificial intelligence, the creative economy, and synthetic biology.

3. Ensure research is embedded with stakeholders by involving businesses, policymakers, consumers and society, the third sector, and other affected groups and communities at every part of the programme – including provision of funding to enable SME involvement.

These objectives will be progressed by up to five Centres, and an integration Hub led by a Coordinator. UKRI have published a concurrent call (referred to on the call page for this call) to establish the Interdisciplinary Circular Economy Centres, each focused on a different nationally-important resource flow. Centres will be expected to work closely with the Hub, and vice versa, to deliver against the objectives of the programme, and interact with the wider stakeholder community.



## Role of the Hub

The Coordinators are expected to use their initial £150k grant (Feb 2020 – Dec 2020) to convene the diverse interdisciplinary Circular Economy community, and to co-develop plans for the Hub and its expected outcomes taking into consideration the broader programme aims (see above). Listed below are aspects that the role of the Hub is expected to include. This is not an exhaustive list, but it is broad. UKRI expect the Coordinators to include an element of prioritisation of different aspects, following the community engagement, within the Hub proposal. The applicants should justify these decisions, within the context of achieving the overall programme aims, in their submission.

- Derive common and interconnected learning from across the Centres and conduct world-leading, cross-cutting, high impact research to drive forward whole-systems understanding across the programme and beyond in order to accelerate the transition to a Circular Economy.
  - As well as conducting research within the core of the Hub this aspect is also expected to include management of an inclusive flexible fund to allow the academic community to conduct agile research on emerging topics, supporting the involvement of discrete

parts of the community that would bring significant benefit to the programme but have not otherwise been engaged.

- Coordinate and integrate activities across the Centres and beyond to enable knowledge exchange – across arts and humanities, biological, engineering, environmental, physical and social sciences. This is expected to include:
  - Supporting and connecting a broad, inclusive and diverse interdisciplinary Circular Economy research and innovation community in order to support the overall programme aims.
  - Identifying key challenges, barriers and opportunities for coordinated activity and cross-cutting research in order to maximise the impact of the overall programme.
  - Inclusive coordination, promotion and, where possible, alignment of knowledge exchange across the portfolio of research and innovation in the Hub, Centres, Collaborative Research and Development funded businesses, with wider UKRI-funded programmes (for example, those funded through the Industrial Strategy Challenge Fund or other Strategic Priorities Fund programmes), and to relevant research communities.
  - Supporting interdisciplinary Circular Economy skills and career development within the partners, academic or otherwise, involved in the Hub and Centres.
  - Supporting a culture change, working with the Centres to drive a broader transition to more circular approaches and considerations for research and beyond, within the institutions and partners involved in the programme.
- Collaborative engagement with a diverse range of stakeholders (including policy officials, industry, the public and the third sector) and promoting coordinated networking and external communication to maximise the impact of the programme outputs. This would be expected to include:
  - Developing, supporting and enabling linkages of the Hub and the Centres, to the user community including business, consumer groups, third sector organisations, and international entities.
  - Supporting, coordinating and, where possible, aligning interactions across the programme with policy officials to inform future policy and priorities and to support contribution to UK government commitments relating to resource efficiency, reducing embodied greenhouse gas emissions, and achieving climate change commitments (Net Zero Target) - such as those in the Resources and Waste Strategy for England and the Clean Growth Strategy.
  - Acting as a focal point for the broader interdisciplinary research and user communities to engage with the programme and taking a leading role in advocating for the Circular Economy research and innovation community

The remit of the Hub should span across UKRI remit; the arts and humanities, biological, engineering, environmental, physical and social sciences are all required to tackle the key cross-cutting challenges.

The Coordinators are expected to lead the Hub, providing a vision for the integration of the overall programme. The Coordinators must work collaboratively with the Centre management teams to provide leadership and advocacy for both the programme and the broader interdisciplinary Circular Economy community. The Hub must deliver actionable solutions and demonstrable impact within the lifetime of the programme as well as beyond and support the successful Centres to do the same. The Hub vision should therefore be designed and delivered in partnership with relevant users, including industry and government (national and, where appropriate, regional and/or local).

In addition, the Hub will be expected to support monitoring and evaluation activities for the programme by:

- being members of Centres' advisory boards
- supporting UKRI monitoring and evaluation of the Hub but also of the programme as a whole
  - This is expected to include a mid-term review of the grant and the programme and a final evaluation of the programme as well as more detailed impact evaluations if required/where appropriate
- attending the programme Strategic Advisory Group and, as required, providing advice and recommendations to the Programme Management Board
- supporting the capture and publication of the outcomes and impacts of the programme as a whole to the relevant communities and stakeholders, and feeding this back to UKRI

The overall programme's Strategic Advisory Group (coordinated and managed by UKRI) will be the governance board for the Hub. The Hub will be expected to discuss progress with UKRI quarterly and report bi-annually on financial progress. In addition, they will be expected to provide annual reporting, via ResearchFish and an annual report. The Strategic Advisory Group will monitor the progress of the Hub by reviewing annual reports and through other interactions and report any concerns to the Programme Management Board.

UKRI appreciate however, that there needs to be a method for the Centres to influence the Hub and for the Hub to get input from other stakeholders. The Hub are therefore encouraged to propose their own model for broader management and advisory structures for the Hub as part of their submission.

The overall programme currently has a target of £10M leverage from business over the programme's lifetime. This is primarily expected to be met by the Centres and leverage on Collaborative Research and Development calls run by Innovate UK. However, the Hub is expected to support the Centres in developing new industrial relationships and where appropriate, and without overly focussing or steering the overall programme, is encouraged to include project partners in order to support the achievement of this overall target.

## **Funding available**

There is up to £3.27M available (at 80% FEC). The proposal should be for up to 45 months, starting on 01 January 2021. This duration aligns the Hub funding with the end date of the Circular Economy Centres for the purpose of the final evaluation. In the event that the Centres' end dates change, UKRI will consult with the Coordinators on extending the duration of the Hub grant (with no additional funding) to meet the objectives of the overall programme.

This funding can be used to request any eligible grant costs, with the exception of equipment over £10,000 in value (inc. VAT).

The overall spend profile for the programme presumes an approximately flat profile across the programme (that is, the same amount paid across the programme each quarter). Applicants are asked to provide a document detailing their proposed spend profile (on a quarterly basis), in line with this overall programme spend profile. Spend profiles will be confirmed with the Hub if recommended for funding, at the post-panel stage.

The Coordinators are expected to request the funding required to achieve the objectives and outcomes they have proposed for the interdisciplinary Hub. This may include, but is not limited to, funding for:

- the Coordinators' time to lead the Hub, and Co-Investigators to provide the required interdisciplinary inclusive approach
- staff to support the integration, coordination, knowledge exchange and publication activities of the Hub
- research staff and associated consumables
- travel and subsistence
- flexible funding to support agile research on emerging topics and to support the involvement of discrete parts of the community that would bring significant benefit to the programme but have not otherwise been engaged
- funding to support impact activities (including stakeholder and user engagement, policy engagement and public engagement)
- funding to support networking and community building activities, to enable engagement and collaboration across key disciplines and sectors, and with policy officials
- funding to support governance, monitoring and evaluation activities

The Coordinators should retain flexibility within the overall programme of work to allow for the Hub to respond to emerging priorities and opportunities.

## **Equality, Diversity and Inclusion**

The long-term strength of the UK research base depends on harnessing all the available talent. UKRI expects that equality and diversity is embedded at all levels and in all aspects of research practice and funding policy. We are

committed to supporting the research community, offering a range of flexible options which allow applicants to design a package that fits their research goals, career and personal circumstances. This includes career breaks, support for people with caring responsibilities, flexible working and alternative working patterns. With this in mind, we welcome applications from academics who job share, have a part-time contract, or need flexible working arrangements.

Peer review is central to UKRI funding decisions, we require expert advice and robust decision-making processes for all UKRI funding initiatives. We are committed to ensuring that fairness is fully reflected in all our funding processes by advancing policy which supports equality, diversity and inclusion. Please see our Equality and Diversity webpages for further information.

## **Responsible Innovation**

UKRI is fully committed to develop and promote responsible innovation. Research has the ability to not only produce understanding, knowledge and value, but also unintended consequences, questions, ethical dilemmas and, at times, unexpected social transformations. We recognise that we have a duty of care to promote approaches to responsible innovation that will initiate ongoing reflection about the potential ethical and societal implications of the research that we sponsor and to encourage our research community to do likewise.

Responsible innovation creates spaces and processes to explore innovation and its consequences in an open, inclusive and timely way, going beyond consideration of ethics, public engagement, risk and regulation. Innovation is a collective responsibility, where funders, researchers, interested and affected parties, including the public, all have an important role to play. Applicants are expected to work within the EPSRC Framework for Responsible Innovation given on the EPSRC website (<https://epsrc.ukri.org/research/framework/>). Applicants are also referred to ESRC's Framework for Research Ethics: <https://esrc.ukri.org/funding/guidance-for-applicants/research-ethics>

## **Guidance on Journal-based metrics**

As part of our commitment to support the recommendations and principles set out by the San Francisco Declaration on Research Assessment (DORA; <https://sfdora.org/read/>), UKRI reviewers and panel members are advised not to use journal-based metrics, such as journal impact factors, as a surrogate measure of the quality of individual research articles, to assess an investigator's contributions, or to make funding decisions.

The content of a paper is more important than publication metrics, or the identity of the journal, in which it was published, especially for early-stage researchers. Reviewers and panel members are encouraged to consider the value and impact of all research outputs (including datasets, software, inventions, patents, preprints, other commercial activities, etc.) in addition to research publications. We advise our peer reviewers and panel members to consider a broad range of impact measures including qualitative indicators of research impact, such as influence on policy and practice.

## Equipment

Equipment over £10,000 in value (inc. vat) is not available through this call. Smaller items of equipment (individually under £10,000) should be in the Directly Incurred - Other Costs heading.

For more information on equipment funding, please see:  
<https://epsrc.ukri.org/research/facilities/equipment/>

## Eligibility

Only the successful Coordinators from the first stage of the process will be invited to submit a full proposal for the Interdisciplinary Circular Economy Hub as PIs. Additional Co-investigators can be added to the proposal where appropriate and justified. UKRI expects the choice of Co-Investigators to enable the Hub to be genuinely interdisciplinary, with any Co-Investigator representing a different area of research or providing a specific role within the management of the Hub. Co-Investigators from **all disciplines supported by UKRI** are welcomed.

For this call, standard UKRI research grant eligibility rules apply relating to the status of the organisation and the employment status of individuals applying.

Eligible organisations are Higher Education Institutes, Research Institutes and Research Organisations that can apply for funding from UKRI Research Councils. A list of eligible organisations to apply to UKRI is provided at:  
<https://www.ukri.org/funding/how-to-apply/eligibility/>.

Certain Public Sector Research Establishments (PSREs) are also eligible to apply. If PSREs wishing to apply have not previously applied for UKRI funding and are not currently designated Independent Research Organisation (IRO) status, the **Self Registration for Organisations link** must be selected and completed in Je-S before the application is created. They may be required to complete an eligibility form; to be eligible, PSREs will need to demonstrate research capacity and capability relevant to UKRI, as per the standard eligibility rules. PSRE applicants should contact UKRI at the earliest opportunity to discuss their interests in applying (contact details are at the start of this call document).

For information on the eligibility of individuals to receive funding, see:  
<https://epsrc.ukri.org/funding/applicationprocess/fundingguide/eligibility/investigators/>

Please ensure sufficient time to create Je-S accounts for Investigators who do not currently have one (<https://je-s.rcuk.ac.uk/Jes2WebLoginSite/Login.aspx>).

Unsuccessful proposals from this call are not subject to the EPSRC repeatedly unsuccessful applicants policy (<https://epsrc.ukri.org/funding/applicationprocess/basics/resubpol/rua/>).

## How to apply

### Submitting an application

You should prepare and submit your proposal using the Research Councils' Joint electronic Submission (Je-S) System (<https://je-s.rcuk.ac.uk/>).

**Although Co-investigators from different institutions are welcomed, only one Je-S application form should be submitted for the proposal. It is the responsibility of the lead organisation to ensure all the documentation required is submitted with the proposal form.**

When adding a new proposal, you should select:

- Council 'EPSRC'
- Document type 'Standard Proposal'
- Scheme 'Standard'
- On the Project Details page you should select the 'Interdisciplinary Circular Economy Hub Call' call.

Note that clicking 'submit document' on your proposal form in Je-S initially submits the proposal to your host organisation's administration, not to EPSRC. Please allow sufficient time for your organisation's submission process between submitting your proposal to them and the call closing date. EPSRC must receive your application by 16:00 on 04 August 2020.

Guidance on the types of support that may be sought and advice on the completion of the research proposal forms are given on the EPSRC website (<https://epsrc.ukri.org/funding/applicationprocess/>) which should be consulted when preparing all proposals.

## **Guidance on writing an application**

Full proposals must include as a minimum (other attachments may be permitted in some cases, as detailed):

1. A single Je-S application
2. Case for Support – twenty pages
  - Two page track record on the leadership team, focused specifically on experience of leading and coordinating complex interdisciplinary programmes in an inclusive way
  - Ten pages to address the assessment criteria. This section should include:
    - Background
    - Overall vision and ambition for the Hub
    - A description of progress made within the Coordinator grant and how the applicants have inclusively co-developed the Hub proposal with the broad, diverse and interdisciplinary Circular Economy research and innovation community as well as other relevant stakeholders.
    - Research programme and methodology – this should be focused on high-level objectives, cross-cutting research questions and challenges and is expected to include flexibility

to address emerging topics and reflect the specific Centres once funded. Applicants should provide an initial plan alongside their approach to developing it as the Hub progresses. Technical detail should follow in the four-page technical annex. This should also include details about how the research programme will be balanced between research carried out within the core of the Hub and research facilitated by the agile flexible fund.

- Planned coordination and integration activities – including the strategy and approach for connecting the broad and diverse interdisciplinary community, and for coordinating knowledge exchange across the other programme investments in order to identify key challenges and maximise the outcomes of the programme investment
  - Collaboration and stakeholder engagement - including how the Hub will engage with and support the programme to address the needs of stakeholders from across the existing supply chain, providing benefits and impact to consumers, Government, business (across a range of sector contexts), and other stakeholders. This should include details of the strategy for engaging with stakeholders including relevant government departments and user groups, as well as a User Engagement Strategy (see further details in User Engagement Strategy section of the call).
- Four page technical annex. This is intended to provide additional information on the research programme (for example on individual work packages or themes) for the expert reviewers. Please ensure there is sufficient detail to allow peer review to assess the quality and ambitious nature of the research. There are no stipulations about the format of the technical annex, but it should complement the other sections of the case for support – primarily, the section on research programme and methodology.
  - Four page management and governance strategy. This should not focus specifically on the Principal Investigator but should demonstrate the strategy and track record across the proposed management team.
    - Demonstration of how the proposed interdisciplinary management structure and the team composition will enable them to manage an inclusive interdisciplinary Hub
    - How equality, diversity and inclusion is embedded in plans for convening the Circular Economy community, including in how the core leadership team will embed ED&I into all activities, how the diverse range of perspectives in the community will be reflected and encouraged, and how the team will create an inclusive and accessible environment for broad participation
    - Day-to-day management strategy for ensuring individual research, coordination and integration activities meet the overall vision for the Hub, and for use of resources

- Details of the strategy and planned governance of the allocation of flexible funding including consideration of appropriate Equality, Diversity and Inclusion considerations
- The planned governance and advisory board structures of the Hub and how inclusivity will be built into stakeholder engagement. This should include details of how the Hub will manage ongoing development and prioritisation of its programme of work in consultation with stakeholders and UKRI
- Monitoring strategy, which should include how KPIs will be baselined, set and monitored, and the major decision points and how these will be used to reassess the direction of the hub.
- A plan for engaging in the required monitoring and evaluation activities for the Hub and the broader programme and how the Hub will support UKRI in these activities

3. CVs, up to two A4 sides each, for named research staff (including Researcher Co-Investigators), or visiting researchers. **CVs are not required for Principal or Co- Investigators and should not be attached.**

4. Justification of Resources – two pages

A two page narrative description of the need for the resources requested. Resources for the project management of the programme and impact activities (including stakeholder and user engagement, interactions with other parts of the Circular Economy programme including funded Centres, public engagement, and responsible innovation) should be described here.

5. Spend profile – one page (use type Other Attachment in Je-S)

**This document will not be sent to reviewers or the panel.** A one page summary of the proposed spend profile, on a quarterly basis. The balance of spend across financial years should be realistic to meet the Hub objectives; however, it must take into account that UKRI will have to meet the overall programme spend profile across the programme, which is based on a flat profile across the grant lifetime (that is, the same amount paid across the programme each quarter). This page should include a table with a value for all 15 quarters across the 45 months, and a brief narrative to justify the proposed spend profile.

Spend profiles will be confirmed with the Hub if recommended for funding, at the post-panel stage. As UKRI has to meet the overall programme spend profile, UKRI does not guarantee that the applicants' requested spend profile can be agreed to, especially if it differs significantly from the programme spend profile.

**There is recognition that the current external Covid-19 situation and delays to the peer review process may result in slower than anticipated spend in 2020-21**, and any specific requirements will be considered at the post panel stage.

6. Workplan - two pages

It is not expected that this will be a Gantt chart for the full duration of the Hub. It is expected that the work plan includes a comprehensive plan for at least the

first 24 months, which relates to the management strategy to give appropriate milestones for when important decisions on the further direction of the Hub will be taken. **The Hub is encouraged to retain flexibility in the workplan to respond to emerging priorities and opportunities, especially in the context of the evolving external Covid-19 situation.**

## 7. Project Partner Letters of Support (As Required)

Letters must:

- Outline the benefits the Project Partner hopes to achieve from participating in the Hub
- Explain how their involvement enhances the quality of the Hub
- Include an indication of the level and nature of financial, staff and/or other support they are willing to put into the Hub (**this should match the in-kind and cash contributions detailed on the Je-S application form**).
- Be signed, dated (with dates no more than 6 months before the call closing date) and on letter headed paper. The signatory should hold a sufficiently senior position to authorise the commitments detailed on behalf of the organisation.

**Only statements of support from Project Partners specifically contributing to the Hub in some way should be included.** Letters expressing general support for the Hub will not be accepted and will be removed from the proposal before the peer review stage.

EPSRC defines a Project Partner as any collaborating organisation (other than a host academic institution) that is contributing to the grant, but not receiving any funding from the grant. In exceptional circumstances, where a partner cannot be formally recorded as a Project Partner (for example, because they are due to financially benefit from the grant), the partner's specific contributions can be captured using the 'letter of support' document type. A maximum of three such letters are allowed.

8. Host Organisation statement – two pages per institution; there should be one statement for each host organisation involved (**each two pages maximum**), all attached together as one document. Letters should include the institution's commitment to the Hub for the lifetime of the award, and the alignment of the Hub's proposed vision to the institution's strategy.

Do not upload any other attachments. If submitted, they will not be sent to reviewers or the panel.

### **Je-S form**

Further guidance on completing the Je-S form can be found at <https://je-s.rcuk.ac.uk/Handbook/pages/GuidanceonCompletingaStandardG/EthicalInformation.htm>. Other relevant guidance includes: EPSRC's policy on animal use in research (<https://www.epsrc.ukri.org/about/standards/animalresearchpolicy/>) and the Responsible Innovation Framework (<https://epsrc.ukri.org/research/framework/>).

Please note that on submission via Je-S, **all** non-PDF documents uploaded are converted to PDF; the use of non-standard fonts may result in errors or font conversion, which could affect the overall length of the document. We recommend that all attachments are uploaded into Je-S as Adobe Acrobat files (PDF) to prevent layout changes to the document.

All attachments must be completed in single-spaced typescript in Arial 11 or another sans serif typeface of equivalent size, with margins of at least 2cm. For example, Arial Narrow is not an allowable font type. Text in embedded diagrams or pictures, numerical formulae or references can be smaller, as long as it is legible. Text in tables and figure labels not within embedded diagrams or pictures should be at least 11 point. For advice on writing proposals see: <https://epsrc.ukri.org/funding/howtoapply/preparing/>

## **User Engagement Strategy**

Importantly the Hub must support the programme to deliver actionable solutions. **The vision and programme for the Hub should be designed and delivered in partnership with relevant users, including industry and government** (national and, where appropriate, regional and/or local).

Successful applicants will be required to develop and execute a strategy for engaging with potential users of the research funded in the Hub and support the Centres to do the same within their resource flows (resources for impact activities can be requested and must be justified in the application). This strategy should be reviewed and updated regularly as part of the formal management of the grant.

The strategy should cover:

- how and when potential users have been / will be identified;
- what form the engagement will take;
- what steps will be taken to engage actively with relevant stakeholders, including policy officials, industry and the third sector, and to ensure that outputs and case studies of the research are made available to potential users and more widely (for example, via social media);
- suitable metrics for determining the success of the strategy in delivering value to users;
- Coordination and engagement of the wider Circular Economy programme, with detail on how the Hub would identify and exploit potential opportunities to work with other existing UKRI investments, where appropriate, to maximise engagement and impact.

While applicants need to consider this strategy in their full proposal, UKRI recognises that flexibility is needed given the dynamic nature of this field and the programme, and the Covid-19 situation. Applicants should therefore provide an initial plan alongside their approach to developing it as the Hub progresses.

## **Assessment**

### **Assessment process**

The proposal will be sent to external peer reviewers for their comments. When a sufficient number of quality reviewer comments have been received, the Principal Investigator will be invited to submit a response to the reviewers' comments. The proposal will then be considered for funding by an interview panel. The interview panel will assess whether the proposed Hub meets the assessment criteria sufficiently. The panel may recommend conditions for UKRI to impose before funding is awarded; based on the panel's recommendations, UKRI reserves the right to seek further information from the applicants before awarding funding.

In addition to the external peer review comments, DEFRA will be invited to provide a short written assessment on behalf of the UK government of the alignment and contribution to relevant UK government (including the devolved administrations) commitments, targets and priorities of the proposed Hub. This document will be provided to the PI alongside the external peer review comments and should be responded to as part of the PI response. The document will also be provided to the interview panel.

Feedback will be in the form of reviewers' comments. The interview panel will be invited to provide any further feedback, where appropriate.

### **Assessment criteria**

#### **Quality of the proposed Hub (joint primary)**

- The novelty, relationship to the context, timeliness and relevance to identified stakeholders;
- The ambition, adventure, transformative aspects or potential outcomes;
- The suitability of the proposed methodology for research, coordination and integration and the appropriateness of the approach to achieving impact.
- The clarity of the overall vision of the proposed Hub

**Fit to Call (joint primary)** – this criterion relates to the fit to the scope and aims of the Interdisciplinary Circular Economy programme and this call

- Strategic importance of the proposed cross-cutting research activities and the degree to which they will increase understanding of 'whole-systems' approaches and support a transition to a more Circular Economy
- Transformative nature of the plans for connecting, networking, integrating, supporting and leading a broad, interdisciplinary, diverse and inclusive Circular Economy community
  - This includes the strength of plans for working with and enhancing the broader programme investments (including the Centres) to ensure the overall programme impact is more than the sum of the parts and evidence of co-development of the Hub programme with a broad, inclusive and diverse Circular Economy research and innovation community

- Clear plans for broad stakeholder mapping and prioritisation and a clear strategy for engaging with and encouraging collaboration and knowledge exchange across the programme with business, government officials, the third sector and the public
- Clear and appropriate approach to collaborative leadership and advocacy for the Circular Economy research and innovation community
- Clear alignment and contribution to relevant UK government (including the devolved administrations) commitments, targets and priorities

### **National Importance (secondary major)**

- Contributes to, or helps maintain the health of other disciplines
- Contributes to addressing key UK societal challenges and/or contributes to future UK economic success and development of emerging industry(s)
- Meets national needs by establishing/maintaining a unique, world leading research and integration activity
- Fits with and complements other UK research funded in the area or related areas, including any relationship to the UKRI portfolio and our stated strategy (which can be consulted using Gateway to Research, at <https://gtr.ukri.org/> )

### **Resources and Management (secondary)**

- Effectiveness of the proposed planning and management
- Appropriateness of the requested resources
- Suitability of proposed strategy for governance of the programme including the flexible allocation of funding and inclusion of a broad and diverse community
- Appropriateness of plans for integrating the views of stakeholders (including government, business and the third sector) as part of governance and advisory structures
- Effectiveness of the proposed monitoring and evaluation arrangements to ensure the overall UKRI Interdisciplinary Circular Economy programme objectives are met

### **Applicant and Partnerships (secondary)**

- Appropriateness of the track record of the applicant(s)
- Balance of skills of the project team, including collaborators
- Ability of the management team to lead/manage a large, complex investment with sufficient support, infrastructure and resources for the day-to-day running of the Hub

## Guidance for reviewers

Information about the EPSRC peer review process and guidance for reviewers can be found at: <https://epsrc.ukri.org/funding/assessmentprocess/review/>

Guidance for reviewing standard grants can be found here:

<https://epsrc.ukri.org/funding/assessmentprocess/review/formsandguidancenotes/standardgrants/>

Reviewers are asked to assess proposals in the context of the current Covid-19 situation. In particular, UKRI has advised applicants of the following:

- UKRI understands that the current environment will make it challenging to secure industry letters of support and leverage. The Hub will be encouraged to bring on new partners throughout the award.
- UKRI encourages the Hub applicants to remain flexible in their proposals, allowing their proposed research to respond to the evolving external situation.

## Grant additional conditions (GACs)

Grants will be subject to the standard UK Research and Innovation grant conditions however due to the specific nature of the funding additional grant conditions will be added to this call. The conditions listed below are provided at this stage to aid planning for the applicants but are subject to change.

- GAC 1 – Engagement with stakeholders and the broader UKRI Interdisciplinary Circular Economy programme

The Hub forms part of the UKRI Interdisciplinary Circular Economy programme. This grant is awarded on the condition that the project will work in strategic partnership with other investments funded through this programme and will undertake a wider networking role with the research and user community outside the Centres and Hub.

The Hub investigators will attend Centre meetings as required, providing regular project updates and reports, and engage fully with the Centre management groups. Failure to do so will result in the suspension of the grant.

- GAC 2 – Governance

Further to RGC 7 Monitoring, this grant is subject to the framework principles of the UKRI Interdisciplinary Circular Economy programme and will be expected to work alongside other grants and governance structures under this scheme where appropriate.

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 UKRI funded research.

The UKRI Interdisciplinary Circular Economy Programme Strategic Advisory Group will act as the governance board for the grant which must cooperate with and report to this board as required.

- GAC 2a – 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 Hub. This should be in place within three months of the start date of the grant. The management structure must be approved by UKRI in advance, as must any changes to this structure. The Project Officer will be UKRI's main contact with the project and must receive all meeting minutes of the management committees. UKRI reserve the right to attend any meetings.

Adequate resourcing to support an appropriate management structure, as specified in the funding call documentation, should be maintained throughout the lifetime of the grant and costed appropriately.

- GAC 2b – Collaboration agreement

Where the grant is associated with more than one research organisation the basis of collaboration between the organisations, including the allocation of resources throughout the project and ownership of intellectual property and rights to exploitation, is expected to be set out in a formal collaboration agreement. It is the responsibility of the lead Research Organisation to put such an agreement in place within three months of the grant start date. The terms of collaboration agreements must not conflict with the Research Councils' terms and conditions.

A copy of the agreement between the research organisations must be provided for and approved by the Project Officer.

- GAC 3 – Review

In addition to the requirements set out in standard UKRI grant conditions RGC 7.4 Research Monitoring and Evaluation, 7.5 Disclosure and Inspection, UKRI 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. A mid-term review of this grant will take place to assess the performance of the grant in line with the peer reviewed body of work, published scheme assessment criteria and Key Performance Indicators/milestones and deliverables. A mid-term review and final evaluation of the programme will also take place, which the Grant Holder will be expected to contribute to. UKRI will give the Grant Holder 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 UKRI for the grant's future.

- GAC 3a – Reporting

In addition to the requirements set out in the standard UKRI grant condition RGC 7.4.3, the Grant Holder is responsible for providing quarterly progress

updates against non-financial performance metrics. As well as bi-annual financial and annual outcome reporting. A detailed list of performance metrics and instructions for reporting will be agreed with the Grant Holder upon commencement of the grant.

- GAC 4 – Expenditure

At the start of the grant the financial spend profile will be agreed by UKRI. The financial profiles are based on those provided in the BEIS allocation letter to UKRI.

In addition to any reporting requirements set out in GAC 3a, the Grant Holder must immediately notify the UKRI Project Officer(s) of any accumulation, slippage or variation in expenditure greater than 5% of the annual profiled funding. UKRI reserves the right to re-profile the grant if required.

Any deviation from the agreed allocation of funding and profiled costs must be negotiated and approved through written consent by UKRI. The approval of profile changes should not be assumed and will be dependent on spend across all associated grants.

At the end of the grant period a breakdown of the expenditure should be submitted along with the final expenditure statement.

Where the Grant Holder holds a competition to distribute a proportion of funds awarded to a Third Party, this competition will be carried out in accordance with the principles of Peer Review upheld by EPSRC <https://epsrc.ukri.org/funding/assessmentprocess/prprinciples/>. Prior agreement on the process stages and assessment criteria must be sought from UKRI and agreed by the Hub's advisory board in advance. The Grant Holder and any third-party recipient must comply with expectations of the use of public money for the purpose of this grant. All expenditure incurred, irrespective of source, must comply with these expectations.

- GAC 4a - Cost and time overrun

No slippage or grant extensions (beyond exceptional circumstances in line with the Equality Act 2010) will be allowed. EPSRC will not be responsible for any cost overrun incurred during the course of this grant. The Research Organisation(s) will be required to make up any shortfall from alternative sources.

- GAC 4b – Start date of the Grant

Notwithstanding RGC 5.2 Starting Procedures, this grant has a fixed start date of 1 January 2021 – no slippage of this date will be permitted. Expenditure may be incurred prior to the start of the grant and be subsequently charged to the grant, provided that it does not precede the date of the offer letter.

- GAC 5 – Publicity and Branding

In addition to RGC 12.4 Publication and Acknowledgement of Support, the Grant Holder must make reference to the UKRI Interdisciplinary Circular Economy programme and UKRI funding and include the UKRI 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 6 – Equality, Diversity and Inclusion

In addition to RGC 3.4, the Grant Holder is expected to prepare a full equality, diversity and inclusion plan for the duration of this grant to demonstrate good practice in equality, diversity and inclusion throughout the lifetime of this funding award. This must be recorded through the grant reporting process. Outcomes relevant to equality, diversity and inclusion should also be reported as described in RGC 7.4.1.

- GAC 7 – User Engagement Strategy

The grant holders must develop and execute a strategy for engaging with potential users of the research funded in the project. This strategy should be reviewed and updated regularly as part of the formal management and reporting process agreed for this grant.

These grant conditions may be subject to change and/or additional conditions may be added before a formal grant offer is made.

## Moving forward

Submissions to this call will not count towards the Repeatedly Unsuccessful Applicants Policy. Further information about the policy can be found at: <https://epsrc.ukri.org/funding/howtoapply/basics/resubpol/rua/>

## Key dates

Activity	Date
Deadline for Full Proposals	04 August 2020
Interview Panel	W/B 02 November 2020
Funding decision	November 2020
Grant start date	01 January 2021

\*EPSRC aims to adhere to the key dates as published, however there may be exceptions where the sift, prioritisation or interview meeting may have to change due to panel member availability.

## Contacts

[Circular.economy@epsrc.ukri.org](mailto:Circular.economy@epsrc.ukri.org) (general enquiries)

Dr Nick Cooper, Senior Portfolio Manager, EPSRC [nicholas.cooper@epsrc.ukri.org](mailto:nicholas.cooper@epsrc.ukri.org)

JeS Helpdesk, 01793 44 4164, [JeSHelp@je-s.ukri.org](mailto:JeSHelp@je-s.ukri.org)

## Change log

<b>Name</b>	<b>Date</b>	<b>Version</b>	<b>Change</b>
Julia Lipecki	24.03.2020	1	As published
Nick Cooper	22.04.2020	2	Amendments due to Covid-19: Closing date amended from 01 July to 04 August, interview date from October to November.  Minor changes to note flexibility in: Spend profile (p16) Workplan (p16-17) User engagement (p18) Reviewer guidance (p21)  Name of EPSRC contact changed.

## Appendix: Je-S attachments Check List

### Standard:

Attachment Type	Maximum Page length	Mandatory/Optional	Extra Guidance
Case for Support	Twenty pages	M	Comprising up to two A4 sides for a track record, ten pages to address the research criteria, four pages technical annex and four pages management and governance strategy
Workplan	Two pages	M	
Justification for Resources	Two pages	M	
CVs	Two pages each	As Required by EPSRC	For named and visiting researchers, and researcher co-investigators only.
Host Organisation statement	Two pages per institution	Mandatory	Please combine letters from each university (each maximum two pages) into one document for attachment.
Project Partner Letters of Support	No page limits	As Required by EPSRC	Must be included from all named project partners. Must be on headed paper and be signed and dated within six months of the proposal submission date.
Letters of Support	No page limits	As Required by EPSRC	In exceptional circumstances a maximum of three letters can be submitted.

Proposal Cover Letter	No page limit	Optional	The cover letter can be used to highlight any important information to UKRI. This attachment type is not seen by reviewers or panel members.
Spend Profile (Type: Other attachment)	One page	Mandatory	To contain a table of preferred, spend profile (by quarter) and brief narrative. Further guidance on requirements in the call document. This attachment type is not seen by reviewers or panel members.

## **Annex 1: Links to key policies and strategies**

UKRI have provided links below to policies and strategies of relevance to the Circular Economy.

### **Public sector strategies, policies and activities**

UKRI Delivery Plans: <https://www.ukri.org/about-us/delivery-plans/>

Government strategies:

- Industrial Strategy:  
<https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future>
- Clean Growth Strategy  
<https://www.gov.uk/government/publications/clean-growth-strategy/clean-growth-strategy-executive-summary>
- 25 Year Environment Plan  
<https://www.gov.uk/government/publications/25-year-environment-plan>
- Resources and Waste Strategy for England  
<https://www.gov.uk/government/publications/resources-and-waste-strategy-for-england>
- Growing the Bioeconomy:  
<https://www.gov.uk/government/publications/bioeconomy-strategy-2018-to-2030>

Scottish Government's Zero Waste Plan:

<https://www2.gov.scot/Publications/2010/06/08092645/11>

Environment (Wales) Act:

<http://www.legislation.gov.uk/anaw/2016/3/contents/enacted>

Investment Strategy NI: <http://www.isni.gov.uk/home/>

### **Other references in the call document**

OECD Global Material Resources Outlook to 2060, OECD, 2018:

<http://www.oecd.org/environment/global-material-resources-outlook-to-2060-9789264307452-en.htm>

Accenture report: <https://www.accenture.com/gb-en/insight-creating-advantage-circular-economy>

Ellen MacArthur Foundation: <https://www.ellenmacarthurfoundation.org/>

Outputs of UKRI circular economy workshop:

<https://epsrc.whp.rcuk.ac.uk/newsevents/pubs/ukri-circular-economy-workshops-june-2019/>

### **Other relevant UKRI documents**

Outputs of 2016 Research Council workshop:

<https://ahrc.ukri.org/documents/project-reports-and-reviews/circular-economy-workshop-report/>

BBSRC reports on the bioeconomy, biotechnology and bioscience:

<https://bbsrc.ukri.org/documents/1607-evidencing-the-bioeconomy-report/>

<https://bbsrc.ukri.org/documents/forward-look-for-uk-bioscience-pdf/>

<https://bbsrc.ukri.org/documents/capital-economics-biotech-britain-july-2015/>

Technopolis Impact assessment of EPSRC funding on the circular economy:

<https://epsrc.ukri.org/newsevents/pubs/impactassessmentepsrcfundingcirculareconomy/>

### **Other relevant documents suggested by UKRI**

Example relevant links to the Waste and Resources Action Plan (WRAP) website:

<http://www.wrap.org.uk/about-us/about/wrap-and-circular-economy>

<http://www.wrap.org.uk/content/employment-and-circular-economy>

<http://www.wrap.org.uk/content/econometric-modelling-and-household-food-waste>

[http://www.wrap.org.uk/sites/files/wrap/Courtauld\\_2025\\_Annual\\_Review\\_2017\\_18.pdf](http://www.wrap.org.uk/sites/files/wrap/Courtauld_2025_Annual_Review_2017_18.pdf)

UN Sustainable Development Goals:

<https://sustainabledevelopment.un.org/post2015/transformingourworld/publication>

UN Global Resources Outlook, 2019:

<http://www.resourcepanel.org/reports/global-resources-outlook>

BEIS Green Finance Strategy:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/813656/190701\\_BEIS\\_Green\\_Finance\\_Strategy\\_Accessible\\_PDF\\_FINAL.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/813656/190701_BEIS_Green_Finance_Strategy_Accessible_PDF_FINAL.pdf)

CCC: Net Zero: <https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf>

Reports from the Natural Capital Committee:

<https://www.gov.uk/government/collections/natural-capital-committee-documents>

Scottish Government circular economy strategy:

<https://www.gov.scot/publications/making-things-last-circular-economy-strategy-scotland/>

Zero Waste Scotland website: <https://www.zerowastescotland.org.uk/our-work/circular-economy>

Welsh Government Sustainable Management Guide:  
<https://gov.wales/sites/default/files/publications/2019-06/sustainable-management-of-natural-resources-guide.pdf>

POST Note on Designing a Circular Economy:  
<http://researchbriefings.files.parliament.uk/documents/POST-PN-0536/POST-PN-0536.pdf>

Bibliometric analysis of circular economy research:  
[https://www.researchgate.net/publication/329293962\\_Worldwide\\_Research\\_on\\_Circular\\_Economy\\_and\\_Environment\\_A\\_Bibliometric\\_Analysis](https://www.researchgate.net/publication/329293962_Worldwide_Research_on_Circular_Economy_and_Environment_A_Bibliometric_Analysis)

Deloitte/Utrecht report on circular economy in the EU:  
[https://circulareconomy.europa.eu/platform/sites/default/files/171106\\_white\\_paper\\_breaking\\_the\\_barriers\\_to\\_the\\_circular\\_economy\\_white\\_paper\\_vweb-14021.pdf](https://circulareconomy.europa.eu/platform/sites/default/files/171106_white_paper_breaking_the_barriers_to_the_circular_economy_white_paper_vweb-14021.pdf)

Next Manufacturing Revolution report:  
<http://www.nextmanufacturingrevolution.org/nmr-report-executive-summary>

Reports from the Valuing Nature Network: <http://valuing-nature.net/natural-capital-synthesis-reports-0>

### **ESRC suggested publications**

<https://www.cccep.ac.uk/publication/sustainable-growth-in-the-uk-seizing-opportunities-from-technological-change-and-the-transition-to-a-low-carbon-economy/>

<https://steps-centre.org/publication/the-circular-economy-and-the-global-south/>

<https://steps-centre.org/publication/chinas-low-carbon-future-offers-global-opportunities/>

<https://steps-centre.org/publication/the-new-politics-and-geographies-of-scarcity/>

<https://steps-centre.org/publication/destabilisation-of-sustainable-energy-transformations-analysing-natural-gas-lock-in-in-the-case-of-germany/>

[https://www.cusp.ac.uk/themes/p/bookchapter\\_gb\\_circularity-thinking/](https://www.cusp.ac.uk/themes/p/bookchapter_gb_circularity-thinking/)

<https://www.cusp.ac.uk/themes/aetw/pwg/>

[https://www.cusp.ac.uk/themes/aetw/gb\\_ce-sp/](https://www.cusp.ac.uk/themes/aetw/gb_ce-sp/)  
Blog (based on research findings) – Brennan

<https://www.cusp.ac.uk/themes/p/sustainable-value-and-trade-offs/>

<https://www.cecan.ac.uk/sites/default/files/2019-01/11%20-%20Waste%20Crime%20%28final%29.pdf>

[https://resourcerecoveryfromwaste.files.wordpress.com/2019/05/rrfw\\_programme\\_brochure\\_web\\_spreads.pdf](https://resourcerecoveryfromwaste.files.wordpress.com/2019/05/rrfw_programme_brochure_web_spreads.pdf)

[https://resourcerecoveryfromwaste.files.wordpress.com/2018/09/rrfw\\_industry\\_co-creation\\_report\\_sept2018.pdf](https://resourcerecoveryfromwaste.files.wordpress.com/2018/09/rrfw_industry_co-creation_report_sept2018.pdf)

<https://www.sciencedirect.com/science/article/pii/S0048969718331887>

<https://www.mdpi.com/2071-1050/10/5/1401>

<https://www.tandfonline.com/doi/full/10.1080/23789689.2017.1405654>

<https://www.mdpi.com/2071-1050/9/9/1603>

[https://resourcerecoveryfromwaste.files.wordpress.com/2019/01/rrfw-2019\\_multidimensional-value-assessment-of-cos.pdf](https://resourcerecoveryfromwaste.files.wordpress.com/2019/01/rrfw-2019_multidimensional-value-assessment-of-cos.pdf)

[https://resourcerecoveryfromwaste.files.wordpress.com/2018/10/rrfw-psa-synthesis-report\\_final.pdf](https://resourcerecoveryfromwaste.files.wordpress.com/2018/10/rrfw-psa-synthesis-report_final.pdf)

[https://resourcerecoveryfromwaste.files.wordpress.com/2018/07/rrfw\\_2018\\_evolution-of-mht-for-resource-recovery-from-msw-in-uk.pdf](https://resourcerecoveryfromwaste.files.wordpress.com/2018/07/rrfw_2018_evolution-of-mht-for-resource-recovery-from-msw-in-uk.pdf)