

Funding opportunity

Manufacturing research hubs for a sustainable future three: outline

Opportunity status:	Closed
Funders:	Engineering and Physical Sciences Research Council (EPSRC)
Funding type:	Grant
Total fund:	£33,000,000
Award range:	£10,000,000 - £11,000,000
Publication date:	2 May 2024
Opening date:	2 May 2024 9:00am UK time
Closing date:	4 July 2024 4:00pm UK time
Opening date:	2 May 2024 9:00am UK time

Last updated: 10 May 2024 - see all updates

Apply for funding to establish a large-scale, multidisciplinary research hub in support of manufacturing, environmental sustainability and net zero.

You must be based at a UK research organisation eligible for Engineering and Physical Sciences Research Council (EPSRC) funding.

Projects should address major, long-term challenges facing manufacturing industries.

We will fund up to three projects. The full economic cost of your project can be up to £13,750,000. EPSRC will fund 80% of the full economic cost.

Funding for each project will be awarded over seven years.

Update: The stage one (outlines) closing date has been extended to 4 July 2024 4:00pm UK time.

Who can apply

Who is eligible to apply

This is the outline stage of this funding opportunity.

Before applying for funding, check the **Eligibility of your organisation**.

EPSRC standard eligibility rules apply. For full details, visit **EPSRC's eligibility page**.

UK Research and Innovation (UKRI) has introduced new role types for funding opportunities being run on the new UKRI Funding Service.

For full details, visit **Eligibility as an individual**.

International applicants

Under the <u>UKRI and Research Council of Norway Money Follows</u>
<u>Cooperation agreement</u> a project co-lead (international) (previously co-investigator) can be based in a Norwegian institution.

Resubmissions

We will not accept uninvited resubmissions of projects that have been submitted to UKRI or any other funder.

Find out more about **EPSRC's resubmissions policy**.

If you are currently restricted under the repeatedly unsuccessful applicants policy, you may submit unlimited outlines. However, you will only be able to submit one full proposal as principal investigator or co-investigator during the 12-month restricted period

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

Overview

Manufacturing research hubs for a sustainable future three will deliver a programme of innovative research in the engineering and physical sciences, related to the challenges in commercialising early-stage research and manufacturing.

The hubs will feature high quality, multidisciplinary research, strong engagement with relevant manufacturing industries, and will take a leadership role in their national network. In particular, they will demonstrate a cross-cutting and embedded approach to environmental sustainability, and promote active equality, diversity and inclusion action planning and delivery.

Manufacturing research hubs for a sustainable future three will complement and refresh EPSRC's existing portfolio of hubs from the first and second round of manufacturing research hubs for a sustainable future and manufacturing research hubs for a sustainable future two, and must contribute to delivering towards at least one of the priorities listed in EPSRC's strategic delivery plan (SDP).

Given that this is the third round of funding opportunities, and as previously advised, we will seek to fill strategic gaps in provision remaining from the first two rounds and not duplicate substantial investments already made. Therefore, while applications could be relevant to any current EPSRC SDP areas, there are both topics of particular interest and specific exclusions as listed under 'what we will not fund', below.

We are especially keen to encourage applications that focus on materials manufacturing and the development of the next generation of production manufacturing technologies, currently dependent on techniques such as; casting and molding, machining, melting, joining and sintering, shearing and forming etc.

We are also particularly encouraging applications that have appropriate user engagement with aerospace and automotive manufacturing sectors, although this is not proscriptive.

What is a hub?

Hubs are expected to deliver:

- high quality, multidisciplinary research
- a strong ethos of skills development for staff
- efficient management of hub operations
- a clear path to realising impact.

Hubs will be leaders within the landscape, driving forward the national manufacturing research agenda in their area and connecting with other players in the community, including users, policymakers, and other public investments (for example Catapults, other hubs and EPSRC investments).

The hub and spoke model will be used, with the hub and spokes working cooperatively towards achieving the overall vision. The lead institution is responsible for the oversight, core management and running of the hub, and the role of the surrounding academic or industrial spokes in different parts of the UK is to input substantive specific expertise in areas that complement those from the lead institution.

Grant funding may be used for spoke activities provided the spoke meets our <u>organisational eligibility requirements</u>.

The hub is expected to deliver added value (be more than the sum of its parts) by demonstrating strong connectivity between all hub partners and offering additional facilities, training and development than what is already provided by individual institutions.

Hub partnerships and impact should span all scales, building on the successes of previous similar investments to deliver impact in regional economies while also playing a national role in an international context.

In line with UK Research and Innovation's objective to build world class places through research and innovation, you should bring together the right people and organisations from places across the UK, to tackle the challenges relevant to your chosen research area and relevant places. You should demonstrate in your application how your hub:

- aligns with the strengths and needs of places
- delivers positive outcomes for specific places in the UK
- aligns with and supports industrial, government and civic ambitions or priorities
- supports local and regional specialisation and innovation

Funding opportunity objectives

The objectives are to:

- deliver a programme of high quality, multidisciplinary research related to the challenges in commercialising early-stage research and manufacturing
- create strategic advantage and drive forward the national manufacturing research agenda in a particular area, as leaders within the landscape
- centre and embed environmental sustainability throughout hub aims, objectives, operations and research outcomes, considering the context of each hub's specific research area
- engage with diverse and relevant partners to ensure that research is cocreated and co-delivered with users
- embed equality, diversity and inclusion (EDI) within hub operations and activities by developing and delivering an EDI action plan, led by the hub EDI lead, which takes into account the specific EDI context and challenges within the hub's research area and community

Research challenges

This funding opportunity is to support innovative research programmes in engineering and the physical sciences, related to the challenges in commercialising early-stage research within manufacturing.

The hub research programmes should:

- draw on advances in underlying science and technology
- focus on the design and development of new and existing manufacturing processes, systems and networks
- explicitly consider the pathway to manufacture, including production scale up and integration within the wider industrial system

You will need to articulate the hub's strategy at each stage of the value chain (discovery, understand, integrate or adapt, and demonstration and deploy).

We welcome applications focusing on diverse research areas and diverse sectors.

We expect all hubs to integrate environmental sustainability at all stages of the research and innovation process. By this, we do not mean that hub research must focus on sustainable manufacturing as a research area. Instead, we expect hubs to:

- embed environmental sustainability in all aspects of the hub, ensuring that environmental impact and mitigation is explicitly considered at all stages of the research lifecycle and throughout the lifetime of the hub
- identify the major challenges relating to environmental sustainability in the chosen research area and integrate these as part of the hub research programme. You should consider ambitious challenges, which may be at a lower technology readiness level but will support a step change in future

sustainability, as well as how to improve and embed sustainability in technology that is closer to commercialisation

demonstrate leadership in environmental sustainability by carrying out hub operations in an environmentally sustainable way, with consideration of how to minimise the negative environmental impact of running the hub. You should seek opportunities to influence others and leave a legacy of environmental sustainability within the broader operations of your academic and industry partners.

Sustainability may be used to cover three broad areas: social, economic and environmental

While hubs may wish to consider some aspects of social and economic sustainability as part of their programme, this is not the focus of this funding opportunity. Environmental sustainability 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 circular economy

Environmental sustainability is complex and there are often conflicting drivers. Hubs will need to take a whole systems approach to enable consideration of the trade-offs, risks and mitigations associated with different approaches and ensure research outcomes are used to support industry and government partners to make informed choices and mitigate unintended consequences.

Industrial engagement

We expect a hub director to have a track-record of collaborating with users and for the hub proposals to demonstrate cash and in-kind support from relevant and diverse sectors.

An <u>evaluation of EPSRC manufacturing research</u> has set a high expectation for future leverage and impact. Therefore, while there is no required level for cash and in-kind contributions at the point of application, we expect that throughout the lifetime of the hub, the number of project partners will increase, and cash or in-kind contributions will rise to a level equal to the EPSRC funding contribution.

To ensure that research outcomes from the hubs can be maximally exploited by industry, we are looking for clear evidence of genuine, substantive partnerships, with co-creation and co-delivery of projects and activities, in addition to financial contributions.

The hub's strategy for engaging with industry should include plans to engage with a new and emerging range of relevant manufacturing companies, including small and medium-sized enterprises, throughout the lifetime of the hub. In the

hub governance procedures, advice from users must be appropriately used in the hub decision-making strategy to grow user engagement in terms of funding and numbers of users.

For more information on the background of this funding opportunity, go to the Additional information section.

Equality, diversity and inclusion

As leaders in the community, hubs will be expected to embed equality, diversity and inclusion (EDI) in all their activities throughout the lifetime of the hub. If funded, this will include identifying the specific EDI challenges and barriers in their own environment and developing a strategy to address these, with reference to our published **expectations for EDI**.

Hubs must ensure that they request appropriate resources to develop and deliver their EDI strategy effectively. This must include at least one costed staff post with responsibility for EDI (the hub EDI Lead). The EDI lead should not be the only hub staff member interested in delivering excellent equality, diversity and inclusion within the hub, such considerations embedded within the ethos of all its activities.

We do not specify any particular full-time equivalent (FTE), salary level or career stage for this post. Hubs may decide what is most appropriate for their programme, while giving due consideration to flexible working.

At Stage two (full proposals), hubs should include information on EDI resources requested (including the mandatory costed staff post for the EDI lead and any other resources, for example mentoring schemes, training, workshops and data exercises).

Duration

The duration of this award is seven years.

Start dates must be within 1 April 2025 and 31 July 2025 and will be awarded with a possible slippage of up to three months from that start date.

This funding opportunity is the third and final in a series of planned opportunities for manufacturing research hubs for a sustainable future, which were initially launched in 2022.

Funding available

The total EPSRC funding available for this funding opportunity will be up to £33 million, to fund up to three manufacturing research hubs for a sustainable future. Funding for each hub will be from £10 million to £11 million, awarded over seven years.

The full economic cost of your project can be up to £13,750,000.

We will fund 80% of the full economic cost, and your organisation must agree to find the balance.

Learn about the costs you can apply for.

Equipment

Funding is available in this funding opportunity for items of equipment dedicated to the hub, costing up to £400,000 (including VAT). These funds will be awarded at 80% of the full economic cost.

Quotes for equipment do not need to be included in your application, but please retain quotes for equipment costing more than £138,000 as we may ask for these at post-panel stage before releasing funds.

Learn about **EPSRC's approach to equipment funding**.

What we will not fund

We are seeking to refresh and complement our existing manufacturing hubs portfolio. Therefore, we will not fund two hubs in the same research area as each other. We are also not accepting applications with significant overlap to the hubs funded in the first two rounds for Manufacturing Hubs for a Sustainable Future in the following areas, as we have sufficient coverage from our existing hubs portfolio:

- vaccines manufacture
- cellular agriculture
- compound semiconductor manufacture
- advanced metrology for manufacturing
- digital, sustainable bulk chemical production
- critical materials circular manufacturing
- digital transformation of medicines manufacturing systems

Applicant groups should also be cognisant of potential substantial overlaps with other recent strategic investments, including but not limited to:

- Circular economy critical mass programmes
- Accelerating the medicines revolution large grants
- Vaccines manufacturing research hubs (with DHSC)
- Al hubs
- relevant programme grants
- relevant UKRI Strategic Fund investments

Our funding decisions will aim to achieve a strategic portfolio balance and we will use a strategic portfolio balancing element within this opportunity.

EPSRC staff will check outlines for remit and if we identify that the proposed research has significant overlap with existing hubs funded, we will not progress the outline to panel and the application will be rejected as out of scope. We will make this assessment on the basis of the outline, as written, so please ensure that the research challenges you propose to address are clearly stated.

Where multiple outlines are submitted within similar areas, we will seek the advice of the panel and consider the portfolio balance across high quality proposals as part of the decision.

Proposals must demonstrably lie primarily within the remit of EPSRC and must be within the scope of this funding opportunity. The research challenges must lie primarily within manufacturing. Any proposals that we deem out of remit or scope may be rejected without reference to review.

Supporting skills and talent

We encourage you to follow the principles of the <u>Concordat to Support the</u> <u>Career Development of Researchers</u> and the <u>Technician Commitment</u>.

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 <u>UKRI's trusted research and innovation</u> for more information on effective international collaboration.

Find out about getting funding for international collaboration.

How to apply

We are running this funding opportunity on the new UK Research and Innovation (UKRI) Funding Service so please ensure that your organisation is registered. You cannot apply on the Joint Electronic Submissions (Je-S) system.

The project lead is responsible for completing the application process on the Funding Service, but we expect all team members and project partners to contribute to the application.

Only the lead research organisation can submit an application to UKRI.

To apply

Select 'Start application' near the beginning of this Funding finder page.

- 1. Confirm you are the project lead.
- 2. Sign in or create a Funding Service account. To create an account, select your organisation, verify your email address, and set a password. If your organisation is not listed, email <u>support@funding-service.ukri.org</u> Please allow at least 10 working days for your organisation to be added to the Funding Service.
- 3. Answer questions directly in the text boxes. You can save your answers and come back to complete them or work offline and return to copy and paste your answers. If we need you to upload a document, follow the upload instructions in the Funding Service. All questions and assessment criteria are listed in the How to apply section on this Funding finder page.
- 4. Allow enough time to check your application in 'read-only' view before sending to your research office.
- 5. Send the completed application to your research office for checking. They will return it to you if it needs editing.
- 6. Your research office will submit the completed and checked application to UKRI.

Where indicated, you can also demonstrate elements of your responses in visual form if relevant. You should:

- use images sparingly and only to convey important information that cannot easily be put into words
- insert each new image onto a new line
- provide a descriptive legend for each image immediately underneath it (this counts towards your word limit)
- ensure files are smaller than 5MB and in JPEG, JPG, JPE, JFI, JIF, JFIF, PNG, GIF, BMP or WEBP format

Watch our research office webinars about the new Funding Service

For more guidance on the Funding Service, see:

- how applicants use the Funding Service
- how research offices use the Funding Service
- how reviewers use the Funding Service

Deadline

EPSRC must receive your application by 4.00pm UK time on 4 July 2024.

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.

Following the submission of your application to the funding opportunity, your application cannot be changed, and applications will not be returned for amendment. If your application does not follow the guidance, it may be rejected. If an application is withdrawn prior to peer review or office rejected due to substantive errors in the application, it cannot be resubmitted to the opportunity.

Personal data

Processing personal data

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**.

Publication of outcomes

EPSRC, will publish the outcomes of this funding Opportunity at **EPSRC Funding Application Outcomes** | **Tableau Public**.

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

Summary

Word limit: 550

In plain English, provide a summary we can use to identify the most suitable experts to assess your application.

We may make this summary publicly available on external-facing websites, so make it suitable for a variety of readers, for example:

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

Guidance for writing a summary

Clearly describe your proposed work in terms of:

- context
- the challenge the project addresses
- aims and objectives

potential applications and benefits

Core team

List the key members of your team and assign them roles from the following:

- project lead (PL)
- project co-lead (UK) (PcL)
- project co-lead (international) (PcL (I))
- specialist
- researcher co-lead
- grant manager
- professional enabling staff
- research and innovation associate
- technician
- visiting researcher

Only list one individual as project lead.

The project co-lead (international) (PcL (I)) role should only be used for applications making use of the <u>UKRI-RCN Money Follows Cooperation</u> <u>agreement</u> or the <u>UKRI-IIASA agreement</u>. EPSRC does not otherwise accept project co-lead (international) applicants.

Find out more about **UKRI's core team roles in funding applications**.

As this is an outline opportunity you will be permitted to add additional team members at the full stage but are not permitted to remove team members without UKRI approval.

Application questions

Fit to Opportunity

Word count: 20

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

Explain how your proposed work:

- fits into the hub and spoke concept, and how this adds value above and beyond that expected through a standard research programme
- aligns with the funding opportunity objectives
- meets clear research challenges within manufacturing

■ is novel and has the potential to advance current understanding, generate new knowledge, thinking or discovery within or beyond the field or area

Create a document that includes your responses to all criteria. The document should not be more than four pages of A4, single spaced in paper in 11-point Arial (or equivalent sans serif font) with margins of at least 2cm. You may include images, graphs, tables.

For the file name, use the unique Funding Service number the system gives you when you create an application, followed by the words '<fit to opportunity>'.

Save this document as a single PDF file, no bigger than 8MB. Unless specifically requested, please do not include any sensitive data within the attachment.

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

The Funding Service will provide document upload details when you apply.

Applicant and team capability to deliver

Applicant team

Word count: 750 words

Question: How will the application team deliver the proposed research programme?

What the assessors are looking for in your response

To what extent has the applicant team demonstrated they have:

- the relevant multidisciplinary experience and skills to develop and deliver the proposed work
- describe where any gaps in the team exist, and articulate how they plan to identify and embed additional expertise

The core leadership team should consist of the project lead (programme director) and the project co-leads (co-investigators) identified on this outline application. There will be scope to expand this team and include new collaborators on the full application and you will be able to add further detail.

User Engagement

Word count: 1000

Question: How will you engage with partners and broader users throughout the lifetime of the hub research programme?

What the assessors are looking for in your response

Please describe how you:

- have involved stakeholders and beneficiaries through collaboration and engagement in the creation of the programme
- will form new collaborations with users throughout the hub lifetime
- will attract additional co-funding (both direct and in-kind) from new and existing project partners to reach a level equal to or greater than the EPSRC contribution
- will prioritise co-creation and co-delivery of projects with project partners from relevant industries, ensuring that user needs are forefront throughout the development and delivery of hub research and activities
- will make best use of the financial, in-kind, and intellectual contributions of project partners to meet the needs and objectives of the hub
- will foster genuine and committed engagement with project partners, where project partners are a core part of the delivery team and develop strong relationships with the hub

References

Word limit: 500

List the references you have used to support your application.

What the assessors are looking for in your response

Include all references in this section, not in the rest of the application questions.

You should not include any other information in this section.

We advise you not to include hyperlinks, as assessors are not obliged to access the information they lead to or consider it in their assessment of your application.

If linking to web resources, to maintain the information's integrity, include persistent identifiers (such as digital object identifiers) where possible.

You must not include links to web resources to extend your application.

Sensitive information

Word limit: 10

Is there sensitive information you need to share with UKRI that you do not want shared with assessors?

What the assessors are looking for in your response

If you do not have anything to share, 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, enter the words 'email sent' in the text box.

Then email the <u>TFSchangeEPSRC@epsrc.ukri.org</u> inbox. You must include in the subject line: <EPSRC responsive mode, sensitive info, Funding Service application number>.

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, see <u>UKRI's privacy</u> notice.

How we will assess your application

Assessment process

We will assess your application using the following process.

This will be a two-stage assessment process and this outline funding opportunity is stage one.

At stage one, we are looking for applications that are a good fit for the funding opportunity. Outline proposals must deliver for a UK manufacturing sector to be considered within scope for this funding opportunity. Any outline proposals we consider to be outside the scope of the funding opportunity, or not primarily within our remit will be rejected prior to assessment, without recourse to an expert panel. Outline proposals that meet the scope and remit will be assessed by an expert panel.

Applicants who are successful at stage one will be invited to submit full proposals to stage two. At stage two, full proposals will be assessed by postal peer review, followed by an interview panel.

Outline Stage

Expert Review

In the event of this funding opportunity being substantially oversubscribed as to be unmanageable, we reserve the right to modify the assessment process.

Applications submitted to this funding opportunity will all be considered by an expert panel.

The outline panel will evaluate applications with reference to the assessment criteria given below

You will not be able to respond to expert reviews at this stage.

We expect expert panel to be held during the week commencing 05 August 2024

EPSRC will consider the wider strategic portfolio balance of manufacturing hubs when inviting to full stage.

Full Application Stage

Peer review

We will invite at least three peers to review your application independently, against the published criteria (areas of assessment) for this funding opportunity.

You will not be able to nominate reviewers for your application. Expert reviewers will continue to be selected by EPSRC.

UKRI are monitoring the requirement for applicant nominated reviewers as we review policies and processes as part of the continued development of the new UKRI Funding Service.

You will be able to respond to reviewers' comments if your application gains enough support.

Interview

If your application gains enough support from reviewers, representatives from the applicant team will be invited to be interviewed by an expert panel, who will have access to your application, reviewers' comments and response. Using this information, the panel will score your application against our assessment criteria (areas of assessment) and rank it alongside other applications. The panel will then make a funding recommendation.

We expect interviews to be held during February 2025.

In addition to the recommendations of the panel, we will take into account the wider strategic portfolio balance of manufacturing hubs when making the funding decision (we will not fund multiple hubs in the same research area).

EPSRC will make the final funding decision.

Feedback

Feedback will be provided if specifically requested by the panel.

Principles of assessment

We support the San Francisco <u>declaration on research assessment</u> and recognise the relationship between research assessment and research integrity.

Find out about the UKRI Principles of Assessment and Decision Making.

Areas of assessment

Stage One: outline application:

The criteria against which your application will be assessed against at the outline stage are:

- fit to opportunity
- user engagement and collaboration
- capability of the applicant or applicants and the project team to deliver the project

Further detail on what the assessors are looking for is available in the questions in the How to apply section.

Stage two: full applications

Only invited applications will be eligible to submit a full application via a separate funding opportunity.

Full applications will be considered by an expert interview panel against the full funding opportunity assessment criteria listed below.

The interview panel will meet prior to the interviews to identify any specific questions they will ask the applicants to answer at the panel interview. These will be in addition to the standard question set the panel will develop to explore the assessment criteria. The application specific questions will be circulated to applicants two weeks ahead of the panel interview, so they are able to prepare their responses.

We expect invited full application interviews to be held in February 2025.

UKRI will make the final funding decision. UKRI will take into account the portfolio, geographic and subject matter diversity of applications when making funding decisions.

Find details of assessment questions and criteria under the 'Application questions' heading in the 'How to apply' section.

Contact details

Get help with your application

If you have a question and the answers aren't provided on this page

IMPORTANT NOTE: The Helpdesk is committed to helping users of the UKRI Funding Service as effectively and as quickly as possible. In order to manage cases at peak volume times, the Helpdesk will triage and prioritise those queries with an imminent opportunity deadline or a technical issue. Enquiries raised where information is available on the Funding Finder opportunity page and should be understood early in the application process (for example, regarding eligibility or content/remit of an opportunity) will not constitute a priority case and will be addressed as soon as possible.

Contact Details

For help and advice on costings and writing your proposal please contact your research office in the first instance, allowing sufficient time for your organisation's submission process.

For questions related to this specific funding opportunity please contact <a href="maintenant-specific

Any queries regarding the system or the submission of applications through the Funding Service should be directed to the helpdesk.

Email: support@funding-service.ukri.org

Phone: 01793 547490

Our phone lines are open:

- Monday to Thursday 8:30am to 5:00pm
- Friday 8:30am to 4:30pm

To help us process queries quicker, we request that users highlight the council and opportunity name in the subject title of their email query, include the application reference number, and refrain from contacting more than one mailbox at a time.

You can also find information on submitting an application.

Sensitive information

If you or a core team member need to tell us something you wish to remain confidential, please contact TFSchangeEPSRC@epsrc.ukri.org

Include in the subject line: [the funding opportunity title; sensitive information; your Funding Service application number].

Typical examples of confidential information include:

- individual 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

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Additional info

Background

This funding opportunity for manufacturing research hubs for a sustainable future three, follows the <u>first round of manufacturing research hubs for a sustainable future</u> and second round (<u>manufacturing research hubs for a sustainable future two)</u>. The outcomes from round one and round two have now been published on <u>Grants on the Web</u>.

The series of manufacturing research hubs for a sustainable future opportunities builds on the success of previous EPSRC critical mass investments in manufacturing, including EPSRC Innovative Manufacturing Research Centres, EPSRC Centres for Innovative Manufacturing and EPSRC Future Manufacturing Hubs.

Manufacturing is an essential part of the UK economy. The UK manufacturing sector is diverse, with activities in many sectors, including but not limited to:

- aerospace
- pharmaceuticals
- chemicals
- automotive
- electronics
- biotechnology
- food and drink

The sector needs to be innovative to compete on a global scale, including meeting <u>UK net zero</u> targets and addressing <u>UN Sustainable Development</u> Goals.

EPSRC aims to support this innovation through the research we fund. By ensuring researchers co-create their programmes with industry, we ensure major, long-term challenges are addressed and emerging opportunities are captured.

UK Research and Innovation's (UKRI) environmental sustainability strategy lays out our ambition to actively lead environmental sustainability across our sector. 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.

Our current linear 'take-make-dispose' economy is not sustainable. The world's consumption of raw materials is set to <u>nearly double by 2060</u> as the global economy expands and living standards rise, placing twice the pressure on the environment, for example via greenhouse gas (GHG) emissions and depleted natural capital.

A circular economy keeps resources in use for as long as possible, extracting the maximum value from them while in use, and recovering products and materials after use. More circular use of resources is crucial to achieving net zero carbon emission targets, as well as reducing waste and pollution harmful to biodiversity, and enhancing health and resource security.

It offers the UK significant economic, social and environmental benefits (see the Next Manufacturing Revolution report (PDF, 6.4MB)), including an estimated £10 billion profit increase for manufacturers, a 4.5% reduction in UK GHG emissions, and in excess of 200,000 new jobs from only partial implementation.

Responsible innovation

We are fully committed to developing and promoting 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.

Research disruption due to COVID-19

We recognise that the COVID-19 pandemic has caused major interruptions and disruptions across our communities. We are committed to ensuring that individual applicants and their wider team, including partners and networks, are not penalised for any disruption to their career, such as:

- breaks and delays
- disruptive working patterns and conditions
- the loss of ongoing work
- role changes that may have been caused by the pandemic

Reviewers and panel members will be advised to consider the unequal impacts that COVID-19 related disruption might have had on the capability to deliver and career development of those individuals included in the application. They will be asked to consider the capability of the applicant and their wider team to deliver the research they are proposing.

Where disruptions have occurred, you can highlight this within your application if you wish, but there is no requirement to detail the specific circumstances that caused the disruption.

Supporting documents

Equality impact assessment (PDF, 188KB)

Updates

10 May 2024

Closing date extended to 4 July 2024. Areas that will not be funded list updated in What we're looking for; questions related to ethics removed from How to apply section as they won't be assessed during the outlines stage.

Timeline

2 May 2024 9:00am

Stage one (outlines) opening date

4 July 2024 4:00pm

Stage one (outlines) closing date

Stage one (outlines) sift panel meeting
August 2024 Stage two (full proposals) opening date
October 2024 Stage two (full proposals) closing date February 2025 Stage two (full proposals) interview panel
February 2025 Expected funding decision
O 1 April – 31 July 2025 Grant start date
Guidance on good research
Good research resource hub
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https://www.ukri.org/opportunity/manufacturing-research-hubs-for-a-sustainable-future-three-outline