

# **Quick Reference**

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

# ISCF Industrial Decarbonisation Research & Innovation Centre

#### Call type: Invitation for proposals

#### Closing date: 06 July 16:00

**Funding Available:** As part of the ISCF Industrial Decarbonisation Challenge  $\pounds$ 19.9m is available to fund one proposal for a Research and Innovation Centre, running until 31 March 2024. The Champion funded through Stage 1 of this process will act as the Principal Investigator for the proposal and the Director of the virtual Centre.

**How to apply:** This is a closed call for an invited full proposal via Je-S.

#### **Assessment Process:**

The invited outline proposal will be considered at a mid-point expert review panel resulting in recommendations to the PI regarding the full proposal submission.

The invited full proposal will be considered at an expert interview panel resulting in recommendations to UKRI who will make a funding decision.

#### Key Dates:

Activity	Date
Deadline for mid-point review panel (Outline)	26 March 2020
Mid-point expert review panel (Outline)	06-07 April 2020
Deadline for Full Proposal	06 July 2020
Expert Interview Panel	W/C 10 August 2020
Funding decision	W/C 24 August 2020
Industrial Decarbonisation Research & Innovation Centre starts	02 September 2020

#### Additional information:

Invitation only-

Funding for the Industrial Decarbonisation Research and Innovation Centre will be provided through the Industrial Strategy Challenge Fund (ISCF). Therefore, there are additional grant conditions and expectations as part of the funding which are detailed in this document. The Director of the Centre will be accountable to the Industrial Decarbonisation Challenge Director who is responsible for the overall delivery of this ISCF Challenge.

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# **ISCF Industrial Decarbonisation Research &** Innovation Centre

Call type: Call type: Invitation for proposals

Closing date: 06 July 16:00

#### **Related themes: Energy**

## **Contents of this call document**

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### Summary

The Industrial Decarbonisation ISCF challenge will be investing up to £170m, delivered by EPSRC and Innovate UK, on behalf of UKRI. The aim of the challenge is to develop and deploy low carbon technologies and enabling infrastructure in one or more heavily industrialised areas, and aims to create at least one low carbon cluster by 2030. This challenge also contributes strongly to

the Governments Mission to 'Establish the world's first net-zero carbon industrial cluster by 2040 and at least one low-carbon cluster by 2030'. Further information on the Government Mission can be found here:

https://www.gov.uk/government/publications/industrial-strategy-the-grand-challenges/missions

Following the ISCF Industrial Decarbonisation Research and Innovation Centre-Champion call which identified a leader for the research components of this challenge, we now invite a full proposal to fund a multidisciplinary research and innovation programme, which currently does not exist at the scale. This Centre is required to accelerate the decarbonisation of industrial clusters in the UK. It will seek to reduce costs, risks, timescales and emissions, by bringing together established and new technology-based areas as well as considering economic and policy implications. The virtual Research and Innovation Centre will provide evidence to policy makers beyond just this challenge, supporting the broader Government mission on Industrial Decarbonisation

(https://www.gov.uk/government/publications/industrial-strategy-the-grandchallenges/missions). It will stimulate cross learning between clusters and provide a strong evidence base allowing them to make informed decisions about future decarbonisation options, policies and institutional reforms. The Centre will also seek to address the challenges faced by those clusters both through its research and policy development functions, including analysis of potential institutional reforms.

The process to fund the Industrial Decarbonisation Research and Innovation Centre includes:

**Stage 1)** ISCF Industrial Decarbonisation Research and Innovation Centre -Champion call – Aimed at identifying a Champion for Industrial Decarbonisation and building a multidisciplinary consortium with six months of funding

**Stage 2)** ISCF Industrial Decarbonisation Research and Innovation Centre call – Invited stage for a full proposal for a virtual multidisciplinary research Centre. Its remit will include carrying out multidisciplinary research and cross-cutting activities such as carbon capture and storage, hydrogen, gasification policy, economic, institutional and regulatory analysis, and knowledge exchange.

Stage 1 has now been completed with a leader for Stage 2 identified. The successful candidate will be provided with six months' worth of funding to consult with the wider research and industrial community to develop a consensus around a research agenda, build a multidisciplinary research consortium and plan a programme of research to address the key questions in the identified agenda. The successful candidate is now invited to prepare a full application as Principal Investigator, with significant input and support from the wider community, for the Industrial Decarbonisation Research and Innovation Centre and will need to submit this application on the 06 July 2020. The Champion will need to ensure that they build an appropriate team of Co-Investigators, Research Associates and administrative support to enable successful delivery of the Centre's goals.

The Industrial Decarbonisation Research and Innovation Centre's remit will include carrying out multidisciplinary research in cross-cutting areas of technology, policy and economics, and to deliver a programme of knowledge exchange activities. The Centre will also be responsible for managing and allocating up to £2m of flexible funds awarded as part of the grant. These flexible funds are a necessary part of the ISCF challenge to allow the programme to be agile and respond to new research opportunities as the activities within the programme progress. Funding calls will be run by the Centre in topic areas identified by the Challenge Programme. Any funds allocated from the flexible funds must comply with standard EPSRC fEC rules, policy and grant conditions.

It is a requirement of the Centre to establish an independent Advisory Board shortly after its launch to provide strategic guidance on the research and innovation programme, and advice on how to best enagage with the wider landscape. The Advisory Board will also have a key role in recommending appropriate topics for flexible funding calls.

## Background

The Industrial Decarbonisation Challenge, funded through the Industrial Strategy Challenge Fund (ISCF) will support delivery of the Clean Growth Grand Challenge and the Industrial Clusters Mission, which has set an ambition to establish the world's first net-zero carbon industrial cluster by 2040, with at least one lowcarbon industrial cluster by 2030. The Mission, and this challenge, will help to place the UK at the forefront of the global shift to Clean Growth, by driving the technologies, services and markets to produce low carbon industrial products.

The Committee on Climate Change and the CCUS Cost Challenge Taskforce recommend progress in decarbonising one or more industrial clusters in the 2020s to allow for replication and scale-up in the 2030s and beyond. Research, innovation, policy and planning over this timescale need to be tightly coupled if new technologies and infrastructure are to be deployed in the most effective ways, in terms of costs, risks, impacts on carbon budgets, and alignment with industry needs. The UK's competitive advantage and ability to capture value will be lost if progress is delayed.

Although collectively each cluster offers economies of scale, skills and assets, decarbonising them is extremely challenging as no individual organisation possesses the necessary means, skill sets or incentives to tackle initial, significant and risky investment. The goal is to decarbonise these environments in ways that also create business advantages. This programme will help to de-risk progressive demonstrations, progress solution designs, create new infrastructure and markets (or ensure existing markets adapt quickly), and assist technology exploitation.

The ISCF challenge will be delivered through three different programme strands:

- 1) Industrial Demonstrators and Shared Infrastructure (£132m, Innovate UK)
- Cluster Decarbonisation Roadmaps and Feasibility Studies (£8m, Innovate UK)
- 3) Industrial Decarbonisation Research and Innovation Centre (£20m, EPSRC)

This call will deliver Activity 3 listed above.

#### **Role of the Champion**

The overall programme is being delivered by UK Research & Innovation. The Champion will initially receive six months of funding. During this time the Champion will put together a proposal for a virtual Research and Innovation Centre with significant input from engagement across a range of academic communities and with industry. It is expected that the Champion will ensure that any workshops held are well publicised and open to the broad industrial decarbonisation community. The Centre will run from 02 September 2020 until 31 March 2024. If the Centre proposal is awarded following peer review, the Champion will act as a Principal Investigator and Director for the Centre. A core aim of stage 1 of this award is for the Champion to bring together a multidisciplinary community around decarbonising industrial cluster technologies and areas of policy research in order to formulate a proposal to EPSRC for the associated Research and Innovation Centre (stage 2). Once the Centre is formed, the Champion will have a key role in leading and driving the transfer of knowledge between academia, industry and policy makers.

#### In the initial six months of the grant the Champion will:

• Engage with academia, industry, policymakers and other stakeholders to develop an interdisciplinary consortium and subsequent proposal for an Industrial Decarbonisation Research and Innovation Centre. It is expected that the Champion will bring together academics, industrialists and other stakeholders to understand the cross cutting research challenges in decarbonising industry which will form the core work packages of the Centre. As this call forms part of the ISCF there should be a strong focus on industry led research challenges being addressed.

#### During the lifetime of the Centre:

This virtual Centre will act as the UK focal point and champion for industrial decarbonisation internationally.

This activity aims to deliver the following by 2024:

- Original and high quality multidisciplinary research and cross-cutting activities such as carbon capture and storage, hydrogen, gasification, policy, economic, institutional and regulatory analysis, knowledge exchange and stakeholder engagement, in line with the challenge objectives.
- Help the UK industrial clusters to organise, engage coherently, exchange knowledge, and learn rapidly with academic, industrial and public technology- or sector-based initiatives both in the UK and internationally, to become world-leading in the 2020s.
- Manage a flexible fund, allowing the academic community to conduct agile research on emerging topics and to help build capacity in the community.
- Joint academia, industry and government forum for knowledge exchange, capacity building and delivery of usable and implementable policy recommendations. This will include utilising wider stakeholder expertise from public sector organisations, relevant national bodies, local authorities, LEPs, consultancies, Catapults and other RTOs, for example.

- A network providing a critical mass of academics with a variety of industrial experiences through engagement opportunities within the programme
- Critical thinking, training and evidence-based recommendations for decision makers, particularly on the application of CCUS, hydrogen, bioenergy, and other emerging and enabling technologies and platforms for decarbonising industrial clusters.
- Work with the Industrial Clusters to look at options on options assessment to support skills and (re-)training, informed by the broader challenge.

The centres are expected to engage with a diverse range of community members and enable broad participation, beyond attendance at events, where attendance may not be possible.

The Research and Innovation Centre will be required to establish an independent Advisory Board who must meet at least annually. It would be expected that the Advisory Board would have membership comprising representatives from academia, industry and government. UKRI will need to approve the membership of the Advisory Board and a representative from UKRI would also be expected to attend these meetings. The Advisory Board will work with the Challenge Director to ensure that the Challenge Objectives are being met.

As this funding forms part of the Government's Industrial Strategy Challenge Fund (https://www.ukri.org/innovation/industrial-strategy-challenge-fund/) it is imperative that the successful Champion has a strong understanding of academic research and the ability to recognise and respond to the needs of industry. They must also be able to provide a credible voice to a range of external stakeholders including Government departments. The Champion will be required to work closely with the Industrial Decarbonisation Challenge Director and other parts of the programme to ensure research and knowledge exchange elements are integrated across the programme and maximise the impact of the programme as a whole. The Champion will be accountable to the Industrial Decarbonisation Challenge Director who is responsible for the overall delivery of this ISCF Challenge.

This call is being run by EPSRC on behalf of UK Research & Innovation Councils. For more information about UKRI's portfolio and strategies, see our website:

https://www.ukri.org/about-us/delivery-plans/

For more information about EPSRC's portfolio and strategies, see our website:

https://www.epsrc.ukri.org/research/ourportfolio/

## Funding available

Up to £19.9m is available to fund a Research and Innovation Centre on industrial decarbonisation.

As this Centre will be part of an ISCF programme there is also an expectation that industry will be highly involved in shaping and participating in the research and innovation carried out, and will be offering cash and/or in-kind contributions to the project. There are no targets for matched industry funding, however, a commitment of contributions of some sort is expected.

The Champion funded through Stage 1 will lead this Centre as Principal Investigator and will act as an ambassador for the wider ISCF Challenge. The remit of the Research and Innovation Centre will include the following:

- Research on multidisciplinary topics relevant to industrial decarbonisation such as carbon capture and storage, hydrogen, gasification, policy, economic analysis and institutional and regulatory analysis.
- Knowledge sharing activities across a breadth of industrial clusters stakeholders such as academia industry and government through workshops, seminars, networking and engagement events
- Managing a flexible fund of £2m to ensure that the Research and Innovation Centre can be agile and respond to research challenges faced by the industrial clusters
- Funding secondments to build a critical mass of individuals who can work across academia and industry and share learning by understanding the research challenges in each environment
- Enhancing links between academia, the industrial clusters and policy makers
- Options assessment to support skills and (re-)training, informed by the broader challenge.
- Other impact activities such as public engagement, training of staff, early stage commercialisation exploration etc. Further details of eligible impact costs can be found here: https://epsrc.ukri.org/funding/applicationprocess/preparing/writing/resour cesimpact/

The expectation is that the Centre will be closely interlinked with the other strands of this ISCF Programme (the demonstrator and roadmapping activities) to help inform research directions and share learning.

# The Centre should also be plan for ongoing sustainability of this critical mass virtual centre once funding has finished on 31 March 2024.

# Equality, Diversity and Inclusion

The long term strength of the UK research base depends on harnessing all the available talent. EPSRC 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 EPSRC funding decisions, we require expert advice and robust decision making processes for all EPSRC 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

https://epsrc.ukri.org/funding/equalitydiversity/ for further information.

## **Responsible Innovation**

EPSRC 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/).

## **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

Please ensure sufficient time to create Je-S accounts for Investigators who do not currently have one.

For information on the eligibility of organisations and individuals to receive EPSRC funding, see the EPSRC Funding Guide: https://epsrc.ukri.org/funding/applicationprocess/fundingguide/

A list of eligible organisations is provided at: https://www.ukri.org/funding/how-to-apply/eligibility/

# How to apply

## Submitting an Outline Application

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

When adding a new proposal, you should select:

- Council 'EPSRC'
- Document type 'Outline Proposal'
- Scheme 'Standard'
- On the Project Details page you should select the 'Decarbonisation Research and Innovation Centre Outline' call.

Note that clicking 'submit document' on your proposal form in Je-S initially submits the Outline 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 Outline application by 16:00 on 26 March 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.

The invited Outline Proposal must have the 'Related Proposals' field completed in Je-S. Please use the option 'Successful Outline' to link to the ISCF Industrial Decarbonisation Research and Innovation Centre-Champion proposal.

## Submitting a Full Proposal application

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

When adding a new proposal, you should select:

• Council 'EPSRC'

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- Document type 'Standard Proposal'
- Scheme 'Standard'
- On the Project Details page you should select the 'Decarbonisation Research and Innovation Centre' 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 06 July 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.

The invited Full Proposal must have the 'Related Proposals' field completed in Je-S. Please use the option 'Successful Outline' to link to the ISCF Industrial Decarbonisation Research and Innovation Centre-Champion proposal.

## Guidance on writing an Outline application

• **Case for support**: should be up to four pages in total, to include:

o One page track record, which should detail the relevant expertise that each investigator will bring to the Research and Innovation Centre

o Three-page description of the proposed research focus and how this fits the aim and scope of the call. This should include a statement of the Research and Innovation Centre's vision, and how each strand of activity complements this vision and wider ISCF Challenge. Details should be provided of the different workpackages and how they will enable multidisciplinary decarbonisation themes to be tackled as well as facilitating industrial input. This should also include how the centre will achieve Impact. Appropriate management and governance plans for the Centre should be included. Please also include details for how the flexible funds will be managed and allocated. Please also detail initial plans for user engagement.

• **Justification of resources**: should be up to two pages. This should be a narrative description of the identified need for the resources to be requested in the Full Proposal.

Applicants should use the Ethical Information section on the Je-S form to demonstrate to peer reviewers that they have fully considered any ethical issues concerning the material they intend to use, the nature and choice, current public perceptions and attitudes towards the subject matter or research area. EPSRC will not fund a project if it believes that there are ethical concerns that have been overlooked or not appropriately accounted for. All relevant parts of the Ethical Information section must be completed. If the research will involve human participation or the use of animals covered by the Animals (Scientific Procedures) Act 1986 it is recommended that applicants pay particular attention to the guidance highlighted below. EPSRC reserves the right to reject applications prior to peer review if the Ethical Information sections are not completed correctly.

Further guidance on completing the Je-S form can be found at https://jes.rcuk.ac.uk/Handbook/pages/GuidanceonCompletingaStandardG/EthicalInforma tion.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 to EPSRC **all** non-PDF documents uploaded onto Je-S 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.

For advice on writing proposals see:

https://epsrc.ukri.org/funding/howtoapply/preparing/

# Guidance on writing an Full Proposal application

• **Case for support**: should be up to ten pages in total, to include:

o Two-page track record, which should detail the relevant expertise that each investigator will bring to the Research and Innovation Centre

o Eight-page description of the proposed research focus and how this fits the aim and scope of the call. This should include a clear statement of the Research and Innovation Centre's vision, and how each strand of activity complements this vision and wider ISCF Challenge. Details should be provided of the different workpackages and how they will enable multidisciplinary decarbonisation themes to be tackled as well as facilitating industrial input. Clear plans for how Impact will be achieved through the Centre should be embedded throughout the proposal. Appropriate management and governance plans for the Centre should be included with sufficient detail for an award of this scale. Please also include details for how the flexible funds will be managed and allocated.

- **Justification of resources**: should be up to two pages. This should be a narrative description of the need for the resources requested. Resources requested for Impact activities should be included in the Justification of resources.
- Work plan: should be up to one page. It is not expected that this will be a Gantt chart for the whole duration of the project, but should include a comprehensive plan for the start of the project (years 1-2) and then refer to the management strategy to give appropriate milestones for how and when important decisions on the direction of the remaining research will be taken.
- **User Engagement Strategy:** The Champion will be required to develop and execute a strategy for engaging with potential users of the research

funded in the project (resources for this 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. This is a key component of ISCF funding.

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 ensure that outputs of the research are made available to potential users;
- suitable metrics for determining the success of the strategy in delivering value to users.

Applicants should use the Ethical Information section on the Je-S form to demonstrate to peer reviewers that they have fully considered any ethical issues concerning the material they intend to use, the nature and choice, current public perceptions and attitudes towards the subject matter or research area. EPSRC will not fund a project if it believes that there are ethical concerns that have been overlooked or not appropriately accounted for. All relevant parts of the Ethical Information section must be completed. If the research will involve human participation or the use of animals covered by the Animals (Scientific Procedures) Act 1986 it is recommended that applicants pay particular attention to the guidance highlighted below. EPSRC reserves the right to reject applications prior to peer review if the Ethical Information sections are not completed correctly.

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For advice on writing proposals see:

https://epsrc.ukri.org/funding/howtoapply/preparing/

### Assessment

### Assessment process (Outline)

The Outline Proposal will not be assessed by postal peer review. The applicantion will be assessed by an independent panel of experts, with membership drawn from those with experience of UKRI leadership roles, longer larger grants, fellowships and industrial experience. The panel will assess the Outline Proposal against the assessment criteria and provide feedback and recommendations to the PI.

## Assessment criteria (Outline)

Criteria/Attribute	Description
Quality (Primary criterion)	<ul> <li>A proposed multidisciplinary partnership of researchers with the necessary skills, including associated enabling disciplines, to address the Industrial Decarbonisation Challenge.</li> <li>A demonstration of a breadth of interaction across relevant disciplines and stakeholders.</li> <li>A proposed research programme and associated knowledge exchange activities.</li> <li>Track record of the team.</li> </ul>
Impact (Secondary major criterion)	<ul> <li>Articulation of who will benefit from the Research and Innovation Centre and who the research will impact</li> <li>Description of proposed plans to maximise the impact of the Centre as well as the ISCF programme as a whole</li> <li>Plans for how the team envisage the Centre to impact the broader landscape of Industrial Decarbonisation including contributing to the Government Mission.</li> <li>A collaborative approach amongst the academic team and relevant stakeholders.</li> </ul>
National importance (Secondary criterion)	<ul> <li>Articulation of how the Research and Innovation Centre will meet the needs of the UK in the context of this ISCF Challenge.</li> <li>Demonstration of underpinning or contribution to: health of other disciplines, addressing key societal challenges, current or future economic successes and/or enables future development of emerging industries.</li> </ul>
Resources and management (Secondary criterion)	<ul> <li>Effectiveness of planning and resource management.</li> <li>Appropriateness of resources requested.</li> </ul>
Partnership and User Engagement Plan (Secondary criterion)	<ul> <li>Demonstration of a consideration of an approach to partnerships and user engagement to enhance the impact of the Research and Innovation Centre.</li> </ul>

Feedback and recommendations from the panel will be given following the panel. The Champion is expected to attend a meeting with the panel, immediately following assessment so that the panel advice and recommendations can be discussed thoroughly. The Champion is also expected to respond to the panel concerns and recommendations formally in writing, outlining how they will address these in the Full Proposal. This is expected within 2 weeks following the panel assessment.

## Assessment process (Full Proposal)

#### Interview process

The proposal will not be assessed by postal peer review. The application will be assessed by an independent panel of experts, with membership drawn from those with experience of UKRI leadership roles, longer larger grants, fellowships and industrial experience. The interview will also comprise questioning from the panel to assess the application against the assessment criteria detailed in this document.

### Assessment criteria (Full Proposal)

Criteria/Attribute	Description
Quality (Primary criterion)	<ul> <li>A proposed strong, multidisciplinary partnership of researchers with the necessary skills, including associated enabling disciplines, to address the Industrial Decarbonisation Challenge.</li> <li>A high quality proposed research programme and associated knowledge exchange activities.</li> <li>A demonstration of a breadth of interaction across relevant disciplines and stakeholders.</li> </ul>
Impact (Secondary major criterion)	<ul> <li>Articulation of who will benefit from the Research and Innovation Centre and who the research will impact</li> <li>Description of proposed plans to maximise the impact of the Centre as well as the ISCF programme as a whole</li> <li>Clear plans for how the team envisage the Centre to impact the broader landscape of Industrial Decarbonisation including contributing to the Government Mission.</li> <li>A clear and strong collaborative approach amongst the academic team and relevant stakeholders.</li> </ul>
National importance (Secondary criterion)	<ul> <li>Articulation of how the Research and Innovation Centre will meet the needs of the UK in the context of this ISCF Challenge.</li> <li>Demonstration of underpinning or contribution to: health of other disciplines, addressing key societal challenges, current or future economic successes and/or enables future development of emerging industries.</li> </ul>
Resources and management	- Effectiveness of planning and resource
(Secondary criterion)	management. - Appropriateness of resources requested.
Team Track Record (Secondary)	<ul> <li>Appropriateness of the track record of the applicant(s)</li> <li>Balance of skills of the project team, including academic partners</li> </ul>

	<ul> <li>Scheme-specific: Development and promotion of the careers of all its team members, including investigators, research assistants, technicians, and aligned students o Ability of the PI and team to lead/manage a large, complex investment with sufficient support, infrastructure and resources for the day-to-day running of the Programme Grant</li> </ul>
Partnership and User Engagement Strategy (Secondary criterion)	<ul> <li>Demonstration of a strong approach to partnerships and user engagement to enhance the impact of the Research and Innovation Centre and to open up translation pathways within the ISCF Industrial Decarbonisation Challenge Programme and beyond</li> </ul>

Feedback and recommendations from the panel will be given by UKRI following interview.

## Grant additional conditions (GACs)

Grants will be subject to the standard UK Research and Innovation grant conditions however the following additional grant conditions will be added to this call as follows:

GAC 1 - Role of ISCF Challenge Directors

This grant is supported through the Industrial Strategy Challenge Fund (ISCF) which is led by a UKRI-appointed ISCF Challenge Director. In accepting this award, the Principal Investigator acknowledges the need for the Challenge Director to have control over the Challenge and agrees to work with the Challenge Director to ensure that the work supported under this grant contributes to the overall delivery of the Challenge. The Principal Investigator, with advice from the Management Team and Advisory Board, retains control of the project funds for the duration of the project.

GAC 2 - Governance

Further to RGC 7 Monitoring, this grant is subject to the framework principles of the EPSRC 'Standard' scheme 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 EPSRC funded research.

GAC 3 - Reporting

In addition to the requirements set out in standard UKRI grant conditions RGC 7.4 Research Monitoring and Evaluation, 7.5 Disclosure and Inspection, EPSRC 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. An expert panel interview 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 deliverables. EPSRC 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 EPSRC for the grant's future.

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 reports against non-financial performance metrics. A detailed list of performance metrics and instructions for reporting will be agreed with the Grant Holder upon commencement of the grant.

GAC 4 – Start Date of the Grant

Notwithstanding RGC 5.2 Starting Procedures, this grant has a fixed start date of 02 September 2020 – 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 - Cost overrun

UKRI 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.

In addition to any reporting requirements set out in GAC 3 the Grant Holder must immediately notify the EPSRC Project Officer(s) of any accumulation, slippage or variation in expenditure greater than 5% of the annual profiled funding. We reserve 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 Us, acting on behalf of UKRI and the ISCF Steering Board. The approval of profile changes should not be assumed and will be dependent on spend across all associated grants. For the avoidance of doubt, the financial year will run April to March in the subsequent year and no carry over of underspend is permissible between financial years.

Payments will be in arrears with payments in advance of need provided by exception and on a case by case basis where appropriate evidence is available that spend will be incurred and will not lead to overspend on the profiled amount. Spend will be subject to reporting requirements as outlined in GAC 3.

Further grant conditions may be added at a later stage in the process.

# Moving forward

The deadline for the full proposal will be the 06 July 2020 and will be assessed by an expert interview panel in August 2020. The assessment criteria are detailed in this document. The proposal will need to demonstrate a clear fit to the assessment criteria and deemed fundable by the panel.

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 Outline application	26 March 2020
Expert review panel (Outline)	06-07 April 2020
Deadline for Full Proposals	06 July 2020
Expert Interview Panel	W/C 10 August 2020
Funding decision	W/C 24 August 2020
Industrial Decarbonisation Research & Innovation Centre starts	02 September 2020

\*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

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# Change log

[**Mandatory** If you request changes to be made to the document, please complete the next line in the table to show who requested the change, the date the change was made, the version number and a brief description of the change(s) made.]

Name	Date	Version	Change
Katharine Dunn	27/09/2019	1	N/A
Laura Finney	20/12/19	2.0	Contact change and outline stage added
Laura Finney	10/02/20	3.0	Date for midpoint panel changed. Removal of the requirement for Pathways to Impact. Addition of 2 pages to Case for Support and guidance related to Impact.

### Appendices (includes Attachment Checklist and Fund Headings)

### Je-S attachments Check List (Outline)

#### Standard:

Attachment Type	Maximum Page length	Mandatory/Optional	Extra Guidance
Case for Support	Four pages	Mandatory	Comprising up to one A4 sides for a track record, and three A4 sides describing proposed research and its context.
Justification for Resources	Two pages	Mandatory	
CVs	Two pages each	Mandatory	For named and visiting researchers, and researcher co- investigators only.

Please ensure you adhere to the above attachment requirements when submitting your proposal. Any missing, over length or unnecessary attachments may result in your proposal being rejected.

# Je-S attachments Check List (Full Proposal)

Stan	dard:	

Attachment Type	Maximum Page length	Mandatory/Optional	Extra Guidance
Case for Support	Ten pages	Mandatory	Comprising up to two A4 sides for a track record, and eight A4 sides describing proposed research and its context.
Workplan	One page	Mandatory	
Justification for Resources	Two pages	Mandatory	
CVs	Two pages each	Mandatory	For named and visiting researchers, and researcher co- investigators only.
Project Partner Letters of Support	No page limits	Mandatory	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	Optional	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 EPSRC. This attachment type

			is not seen by reviewers or panel members.
Parnership and User Engagement Strategy	Two Pages	Mandatory	This can be used for a document that does not fit under any of the headings above. This attachment type is not seen by reviewers or panel members.

Please ensure you adhere to the above attachment requirements when submitting your proposal. Any missing, over length or unnecessary attachments may result in your proposal being rejected.