Quick Reference

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

Adventurous Manufacturing Round 2

Call type: Invitation for outlines

Closing date: 16:00 13 August 2020

Funding Available: Up to £3M is available through this call to fund awards of maximum £250K (80% FEC) each.

How to apply: This call is a two-stage process where all applicants are asked to submit an outline proposal, followed by invitation to Interview. Successful candidates will be asked to submit a full proposal.

Assessment Process: Outline proposals will be considered by an expert shortlisting panel from which applicants will be invited to interview. There will be no postal peer review for this call.

Key Dates:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Je-S Opening Date for outline proposals</td>
<td>08 June 2020</td>
</tr>
<tr>
<td>Closing Date for outline proposals</td>
<td>16:00 13 August 2020</td>
</tr>
<tr>
<td>Outline Shortlisting Panel</td>
<td>w/c 05 October 2020</td>
</tr>
<tr>
<td>Interview Panel(s)</td>
<td>w/c 19 October 2020</td>
</tr>
<tr>
<td>Announcement of Successful Applicants</td>
<td>December 2020</td>
</tr>
</tbody>
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Version 11 March 2020
Adventurous Manufacturing Round 2

Call type: Invitation for outlines

Closing date: 16:00 13 August 2020

Related themes: Digital Economy, Energy, Engineering, Healthcare Technologies, ICT, Manufacturing the Future, Mathematical Sciences, Physical Sciences, Quantum Technologies

Contents of this call document

Summary
Background
Funding available
Equality, Diversity and Inclusion
Equipment
Eligibility
How to apply
Submitting an application
Guidance on 'Writing an application'
Assessment process
Assessment criteria
Moving forward
Key dates
Contacts
Change log
Attachment checklist

Summary

This initiative will look to support a portfolio of exceptional and potentially transformative science and engineering research projects that have the potential to contribute to EPSRC’s vision for manufacturing research.

This is the second round of the Adventurous Manufacturing call, having successfully funded 13 research projects previously. The Manufacturing the Future (MtF) theme is keen to build on the success of the first round by expanding its portfolio of Adventurous Manufacturing grants.

A high degree of risk in these applications is expected and welcomed to encourage speculative ideas or new ways of thinking.

There is up to £3M available for this call, with applicants able to apply for up to £250K (80% FEC) for projects up to 24 months in duration. The process will be an anonymous outline stage followed by an invitation to interview.

Version 11 March 2020
Background

The MtF theme's vision is of a prosperous and productive UK, supported by a thriving, research and knowledge-led manufacturing base. The Manufacturing sector makes a major contribution to the UK economy; a sector that is continuously shaped by global issues, pioneering technology, changing consumer habits, trends, and other factors. Looking to the future, UK industry needs to continue to innovate, particularly in high-value and specialist manufacturing, in order to support UK productivity and prosperity.

To enable this, our mission is to create and capture the benefits of basic research for UK manufacturing industries. Aligned with the EPSRC delivery plan, one of MtF's priorities is investing in excellent manufacturing research, which draws on emerging opportunities from across the engineering, physical, biological and mathematical sciences. We want the manufacturing research we support to help solve some of the most serious challenges facing the UK today and in the future.

With this call we are looking to identify these emerging opportunities, by investing in highly adventurous research for which new manufacturing knowledge is needed to lead to successful processes and products. We want to reach academics working at the interface between underpinning science and manufacturing who want to move their work into the manufacturing domain, as well as academics already working in the full spectrum of manufacturing research (including simulation, design, production, fabrication, systems and services).

For more information about EPSRC’s portfolio and strategies, see our website: https://epsrc.ukri.org/research/ourportfolio/.

Funding available

There is up to £3M available through this call to fund awards of maximum £250K (80% FEC) each.

Inclusion of Project Partners is encouraged, although not a formal requirement of this call. Due to COVID-19 disruption, there may be difficulties gaining industrial support, however all applicants are urged to think more broadly about industrial engagement, including building in plans to engage with a range of relevant manufacturing companies (SMEs included) throughout the project.

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/.

Version 11 March 2020
Eligibility

It is expected that this award is for a Principal Investigator (PI) only. If the grant crosses disciplinary boundaries, a Co-Investigator (Co-I) may be permitted if it is demonstrated that they are from a different discipline to the PI. For example, it is not usually expected that the Co-I is from the same department as the PI.

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 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’
- Document type ‘Outline Proposal’
- Scheme ‘Outline’
- On the Project Details page you should select the ‘Adventurous Manufacturing Round 2 - Outline Proposals’ 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 Thursday 13 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.

Full proposals invited following a successful outline stage must have the ‘Related Grant’ field completed in Je-S. Please use the option ‘Successful Outline’.
Guidance on writing an application

Applicants will follow a two-stage process and all applicants are to submit an outline proposal. For outline proposals, the following attachments are mandatory:

- **Case for Support** (maximum 4 sides of A4 in size 11 font)
  - **Important**: This document needs to be anonymised – avoid revealing your identity and host organisation. **Do not** include academic publication or research track record, nor any other reference that may reveal identity. If it is deemed that applicant identity is revealed, EPSRC reserve the right to reject the proposal at this stage.
  - The following key points must be covered:
    - What manufacturing research challenge are being addressed?
    - What is the novel manufacturing research idea? How would this research help to deliver the manufacturing challenge you are addressing?
    - Why is this research potentially transformative? (At least 50% must be within the MtF theme’s remit.)
    - What will be the key achievement at the end of the project? How will risks be managed? What difference will this award make?
  - Diagrams can be included but **must** be readable.
  - **Please note**: If page limit is exceeded or does not conform to the format, EPSRC reserve the right to reject the proposal at this stage.

- **Justification of Resources (JoR)** (maximum 2 sides of A4 in size 11 font)
  - **Please note**: This document will be assessed only at interview stage. It will be used to help make an informed judgement about whether the resources requested are appropriate for the research proposed.
  - If appropriate, blank figures for costs can be provided at this stage.
  - Explain why the resources requested are required to undertake the research project.

- **Proposal Cover Letter** **seen by EPSRC staff only** (no page limit)
  - **Please note**: This document is not seen by panel members.
  - Express any other information felt relevant to the application.
  - If applicable, highlight any prior discussion had with EPSRC staff.

Outline proposals must be submitted by individual eligible researchers. **Each applicant can only submit one proposal as a Principal Investigator.**
If successful after interview, applicants will be invited to submit a full proposal:

- All attachments from the Outline stage are mandatory.
- JoR to be updated with exact figures if blank figures were provided at Outline.
- Project Partner letters can be submitted if applicable.

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.


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/.

**Assessment**

**Assessment process**

In the event of this call being substantially oversubscribed as to be unmanageable, EPSRC reserve the right to modify the assessment process.

Applications will be assessed via a two-stage process, the Outline and the Interview.

**Stage 1 – Shortlisting of Outlines**

Proposals received by the closing date will be assessed by an external panel. This stage is being performed anonymously to ensure the panel is focused on the research idea and cannot be influenced by other factors such as affiliation.

The panel will be looking for convincing evidence of how the applicant might approach their chosen problem, and the level of creativity and pioneering foresight. Assessment of proposals will be based on how well the answers to the questions posed in the Case for Support align to the criteria identified in the Assessment Criteria section below.

Version 11 March 2020
Any proposals not within remit will be rejected prior to the shortlisting panel meeting.

In the event of the call being undersubscribed, EPSRC reserve the right to not hold a shortlisting panel and all applicants will be invited to interview.

**Stage 2 – Interview**

Applicants who are successful at Stage 1 will be invited to interview and will receive further details on the process directly from EPSRC. From this stage, the call will no longer be anonymous.

The interview panel will use the outline proposal as their initial source of reference, particularly with respect to any technical aspects of the proposed research, and will have access to the Justification of Resources submitted. The panel have leave to ask the applicant for additional information and clarification, concentrating primarily on fit to the assessment criteria. The panel’s assessment will be based on the written documentation already submitted and the interview performance.

At this stage, the panel is looking for convincing evidence that the applicant is an exceptionally creative investigator who can deliver the proposed research idea as well as examining the idea more deeply to check its potential to be transformative, adventurous and contribute to the vision of the MtF theme.

The panel will rank proposals submitted against the assessment criteria and will be asked to make funding recommendations to EPSRC. It is anticipated interviews will take place October 2020.

There will be no postal peer review of applications submitted against this call.

**Assessment criteria**

**Stage 1 – Shortlisting of Outlines**

Criteria to be assessed at outline stage are:

**Research Quality (Primary Criterion)**

- Relevance to the UK manufacturing research base and potential to provide the UK with unique capability.
- Novelty, relationship to context, timeliness and relevance to identified stakeholders.
- Ambition, adventure and transformative aspects or potential outcomes.
- Suitability of proposed methodology and appropriateness of the approach to achieving impact.

**Importance (Secondary Major Criterion)**

- Evidence of how the proposed research contributes to:
  - Maintaining health of other research disciplines.
  - Addressing key UK societal challenges.
• Current or future UK economic success and/or enables future development of key emerging industry(ies).

• Meets national strategic needs by establishing or maintaining a unique world leading research activity (including niche capability areas).

• Fits with and complements other UK research already funded in the area or related areas, including the relationship to the EPSRC portfolio, Research Area strategies and Delivery Plan.

Fit to Scope of Call

• Meets aims and objectives of the call.

Stage 2 – Interview

At interview stage, the following assessment criteria will be assessed in addition to those above:

Applicant and Partnerships (Secondary Criterion)

• Ability to deliver proposed project.
  o Appropriateness of the track record of the applicant(s).
  o Balance of skills of project team, including collaborators.

Resources and Management (Secondary Criterion)

• The effectiveness of the proposed planning and management arrangements.

• Any equipment requested, or the viability of the arrangements described to access equipment needed for this project, and particularly on any university or third-party contribution.

• The appropriateness and justification of the requested resources.
  o Include any requested for activities to either increase impact for public engagement or to support responsible innovation.

Feedback

Brief feedback may be given to applications at the Stage 1 Outline as directed by the panel.

The Interview panel will offer feedback and advice to applicants who are not successful at the Stage 2 interview.

Moving forward

Following interview, successful candidates will be required to submit a full proposal. This submission will only constitute resubmission of the outline documentation, plus appropriate Project Partner Letters of Support and Ethical Information (if required). Guidance will be provided by EPSRC to successful
applicants at this stage. Deadline for submission of the full proposals will be November 2020.

An unsuccessful application to this call will not affect an applicant’s eligibility to apply for a New Investigator Award.

If you are currently restricted under the Repeatedly Unsuccessful Applicants Policy, you may submit unlimited outlines but you will only be able to submit one full proposal (as PI or Co-I) during the 12 month restricted period.

Submissions to this call will 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**

<table>
<thead>
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*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**

Applicants should wherever possible, contact their university research office for help and advice on writing their proposal. Please allow enough time before the closing date for their organisation’s submission process.

We recommend that potential applicants discuss their ideas with EPSRC well before the closing date. Please ensure that your question has not been addressed within this document before contacting EPSRC. If you have any questions about the call, please contact:

- Katie Walker
  Portfolio Manager – Manufacturing the Future
  Katie.Walker@epsrc.ukri.org
- Tochukwu Ajare
  Portfolio Manager – Manufacturing the Future
  Tochukwu.Ajare@epsrc.ukri.org
- Manufacturing Inbox

Version 11 March 2020
Any queries regarding the submission of proposals through Je-S should be directed to:

- Je-S helpdesk E: JeSHelp@je-s.ukri.org

A call back can be requested via email as the contact telephone number is currently not available.

### Change log

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<th>Name</th>
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<th>Change</th>
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<td>Katie Walker</td>
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### Appendices (includes Attachment Checklist)

#### Je-S attachments Check List

**Outline:**

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<thead>
<tr>
<th>Case for Support</th>
<th>Four pages</th>
<th>Mandatory</th>
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<tbody>
<tr>
<td>Justification for Resources</td>
<td>Two pages</td>
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</tr>
<tr>
<td>Proposal Cover Letter</td>
<td>No page limit</td>
<td>Mandatory</td>
</tr>
</tbody>
</table>

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.