

Quick Reference

Please note that you must read the full call document, including the Appendices, for guidance before submitting your proposal

Tackling global development challenges through engineering and digital technology research

Call type: Invitation for proposals

Closing date: 15 November 2016 at 16:00

Funding Available: Up to **£25 million** is available from EPSRC for this call through the Global Challenges Research Fund. We aim to fund in the region of 20 projects through this activity.

How to apply: Applicants must submit full proposals by 15 November 2016.

Assessment Process: Proposals will undergo peer review and moderation at a prioritisation panel.

Key Dates:

Activity	Date
Call for proposals issued	23 August 2016
Deadline for full proposals	15 November 2016, 16:00
Panel meeting	March/April 2017
Funding decision	April 2017
Grant start date	01 May 2017

Additional information:

- As the funding is provided through the Global Challenges Research Fund, the research activity proposed must be in line with Official Development Assistance (ODA) guidelines, and evidence of ODA compliance must be provided in the application. For further ODA guidance, please see <http://www.rcuk.ac.uk/documents/international/gcrfodaguidance-pdf/>.
- The research activity proposed must be predominantly within EPSRC remit, although interdisciplinary and/or multidisciplinary proposals are welcomed.
- No single items of equipment over £10,000 in value may be requested.
- Standard EPSRC eligibility requirements apply to this activity for UK Investigators and research organisations. **Please note that applicants may only be named as Investigator (either Principal or Co-Investigator) on one proposal to this call.**

- Overseas Co-Investigators from research organisations in Low- and middle-income countries – all countries on the Development Assistance Committee (DAC) list of the OECD – may be included on proposals through this call. We will also support costs associated with research overseas, e.g. consumables, field work.
- The lead institution and Principal Investigator must be based in the UK. Although proposals may be multi-institutional, only one application form should be submitted for each bid. Joint proposals on separate Je-S forms will not be accepted.
- The projects may be up to 36 months in duration.

Contacts:

- Gavin Salisbury (Gavin.Salisbury@epsrc.ac.uk) – general information and ODA/Global Challenges Research Fund queries
- Katie Blaney (Katie.Blaney@epsrc.ac.uk) – questions on scope with respect to Engineering
- Claire Tansley (Claire.Tansley@epsrc.ac.uk) – questions on scope with respect to Digital Technologies

Tackling global development challenges through engineering and digital technology research

Call type: Invitation for proposals

Closing date: 15 November 2016 at 16:00

Related themes: Engineering, Digital Economy, ICT

Summary

This call is supported through EPSRC's Global Challenges Research Fund (GCRF) allocation. The aim of this activity is to support an internationally leading programme of research, centred around 1) engineering and 2) digital technologies, to tackle the challenges faced by the developing world. Exemplar areas are given under each heading below, but these should not be seen as exclusive. Proposals may also span both headings.

1) Tackling global development challenges through engineering research

- Sustainable infrastructure development
- Engineering for disaster resilience
- Engineering for humanitarian aid

2) Tackling global development challenges through digital technology research

- Access to digital services
- Use of data for vital services
- Secure and trusted digital infrastructures

The proposed research must be predominantly in EPSRC remit, although interdisciplinary and/or multidisciplinary proposals are welcomed. Proposals must also be compliant with Official Development Assistance (ODA) guidelines.

Please note that applicants may only be named as Investigator (either Principal or Co-Investigator) on one proposal to this call.

Overseas Co-Investigators from research organisations in Low- and middle-income countries – all countries on the Development Assistance Committee (DAC) list of the Organisation for Economic Cooperation and Development (OECD) – may be included on proposals through this call.

The call closes at **16:00 on Tuesday 15 November 2016**. Up to **£25 million** is available from EPSRC for this call. We aim to support in the region of twenty research projects through this activity.

Background

The Global Challenges Research Fund (GCRF) is a £1.5 billion UK Government fund, administered by the Department of Business, Energy and Industrial Strategy (BEIS), to support cutting-edge research that addresses the challenges faced by developing countries through:

- challenge-led disciplinary and interdisciplinary research;
- strengthening capacity for research and innovation within both the UK and developing countries;
- providing an agile response to emergencies where there is an urgent research need.

GCRF is administered through delivery partners, including the Research Councils and national academies, and forms part of the UK's Official Development Assistance (ODA) commitment, which is monitored by the Organisation for Economic Cooperation and Development (OECD)¹. ODA-funded activity focuses on outcomes that promote the long-term sustainable growth of countries on the OECD Development Assistance Committee (DAC) list².

This call is supported through EPSRC's GCRF allocation. It follows on from our provision of institutional sponsorship funding to 35 universities in 2016-17 for ODA-compliant pump-priming research and impact acceleration activities³.

The aim of this call is to support an internationally leading programme of research, centred around 1) engineering and 2) digital technologies, to tackle the challenges faced by the developing world. Exemplar areas are given under each heading below, but these should not be seen as exclusive. Proposals may also span both headings.

1) Tackling global development challenges through engineering research

- Sustainable infrastructure development
- Engineering for disaster resilience
- Engineering for humanitarian aid

2) Tackling global development challenges through digital technology research

- Access to digital services
- Use of data for vital services
- Secure and trusted digital infrastructures

¹ <http://www.oecd.org/>

² <http://www.oecd.org/dac/stats/daclist.htm>

³ Based on competitively-won research and training grant income.

Interdisciplinary and/or multidisciplinary projects are welcomed, where appropriate. It is vital that applicants consider the international development context of their proposed research, including socio-economic and environmental factors, as appropriate. We also welcome the involvement of engineering and physical sciences disciplines not typically engaged in international development research.

Collaboration with academic partners, government agencies and non-governmental organisations (NGOs) based in one or more developing countries is strongly encouraged in project proposals to this call, but it is not mandatory. Industrial collaborators are also welcome, subject to EPSRC standard funding rules.

The proposed research must be predominantly in EPSRC remit. If you have any doubts on this point please contact EPSRC before applying. Proposals must also be compliant with ODA guidelines; evidence of ODA compliance is required as part of your application (see Guidance on writing an application below). Proposals not meeting either of these requirements in the judgement of EPSRC staff will be rejected without recourse to peer review.

For more information about EPSRC's portfolio and strategies, see our website: <https://www.epsrc.ac.uk/research/ourportfolio/>

Funding available

Up to £25 million is available from EPSRC for this call, supported through the Global Challenges Research Fund. We aim to support in the region of twenty research projects through this activity. Projects may be up to 36 months in duration.

Overseas Co-Investigators from research organisations in Low- and middle-income countries – all countries on the Development Assistance Committee (DAC) list of the Organisation for Economic Cooperation and Development (OECD) – may be included on proposals through this call. We will also support costs associated with research overseas, e.g. consumables, field work. The proportion of funds directed overseas is at the discretion of the applicants and should be based on the best balance to achieve the programme's objectives. For full details of what is permissible please see the Appendices to this call document.

Guidance on the types of support that may be sought from EPSRC is given on the EPSRC website (<https://www.epsrc.ac.uk/funding/howtoapply/>) which should be consulted when preparing all proposals.

Equipment

Equipment is not available through this call.

For more information on equipment funding, please see: <https://www.epsrc.ac.uk/research/facilities/equipment/>

Eligibility

Standard EPSRC eligibility requirements apply for the UK team in this activity. For information on the eligibility of organisations and individuals to receive

EPSRC funding, see the EPSRC Funding Guide:
<https://www.epsrc.ac.uk/funding/howtoapply/fundingguide/>

As this call is a targeted funding opportunity provided by EPSRC, higher education institutions, and some research council institutes and independent research organisations are eligible to apply. A list of eligible organisations to apply to EPSRC is provided at: <http://www.rcuk.ac.uk/funding/eligibilityforrcs/>

Please note that applicants may only be named as Investigator (either Principal or Co-Investigator) on one proposal to this call.

Overseas Co-Investigators from research organisations in Low- and middle-income countries – all countries on the Development Assistance Committee (DAC) list of the Organisation for Economic Cooperation and Development (OECD) – may be included on proposals through this call. Please see the Appendices to this document for full details.

How to apply

You should prepare and submit your proposal using the Research Councils' Joint electronic Submission (Je-S) System (<https://je-s.rcuk.ac.uk/>). Although proposals may be multi-institutional, only one application form should be submitted for each bid. Single-form applications are required in order to facilitate integration across the research partners. **Joint proposals on separate Je-S forms will not be accepted.**

The lead institution must be based in the UK and must be eligible to hold EPSRC grants.

When adding a new proposal, you should select:

- Council 'EPSRC'
- Document type 'Standard Proposal'
- Scheme 'Global Challenges Research Fund'
- On the Project Details page you should select the 'Tackling global development challenges through engineering and digital technology research' 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 15 November 2016**.

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://www.epsrc.ac.uk/funding/howtoapply/>) which should be consulted when preparing all proposals.

Guidance on writing an application

Applications must include the following components:

- Case for support (up to **ten** sides of A4 in total), including:

- track record of applicants (up to two sides of A4)
- description of proposed research (up to six sides of A4)
- management plan, including risk management strategy (up to two sides of A4)
- **Official Development Assistance (ODA) statement:** one side of A4 (attachment type '**Non-UK components**') in which you should consider the following questions:
 - Which country/ countries on the DAC list will directly benefit from this proposal and are these countries likely to continue to be ODA eligible for the duration of the research?
 - How is your proposal directly and primarily relevant to the development challenges of these countries?
 - How do you expect that the outcome of your proposed activities will promote the economic development and welfare of a country or countries on the DAC list?
- Pathways to impact statement (up to two sides of A4)
- Work plan (one side of A4)
- Justification of resources (up to two sides of A4)
- CVs (up to two sides of A4 for each named researcher, visiting researcher and researcher co-investigators, where applicable)
- Statement of support from project partners, where applicable (no page limit)
- Technical assessment for the use of any major facility - where applicable (no page limit)

The case for support should include a description of the international development importance of the proposed research, and secondary benefits to the UK of this research, i.e. UK national importance. See also the RCUK GCRF ODA guidance at:

<http://www.rcuk.ac.uk/documents/international/gcrfodaguidance-pdf/>

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://je-s.rcuk.ac.uk/Handbook/pages/GuidanceonCompletingaStandardG/EthicalInformation.htm>. Other relevant guidance includes: EPSRC's policy on animal use in research (<https://www.epsrc.ac.uk/about/standards/animalresearchpolicy/>) and the Responsible Innovation Framework (<https://www.epsrc.ac.uk/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.

In addition, where non-standard fonts are present, and even though the converted PDF document may look unaffected in the Je-S System, when it is imported into the Research Councils Grants System some information may be removed. We therefore recommend that where a document contains any non-standard fonts (scientific notation, diagrams etc), the document is converted to PDF prior to attaching it to the proposal.

For advice on writing proposals see:

<https://www.epsrc.ac.uk/funding/howtoapply/preparing/>

User Engagement Strategy

Successful applicants will be required to develop and execute a strategy for engaging with potential users of the research funded in the project; resources for this activity can be requested as part of the Pathways to Impact and must be justified in the application. This strategy should be reviewed and updated regularly as part of the formal management of the grant. In this activity it is vital that applicants consider the international development context and potential users of their proposed research in DAC-list countries, giving appropriate consideration to socio-economic and environmental factors.

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.

Assessment

Assessment process

Proposals will undergo postal peer review. Applicants whose proposals receive sufficiently supportive postal reviews will have the opportunity to respond to the anonymous peer reviewers' comments. These proposals will then be considered by a moderation panel in March or April 2017. Proposals with insufficiently supportive reviewers' comments will be rejected without consideration by the panel and with no opportunity to respond to reviewers' comments.

Please note that if demand is high we reserve the right to convene an expert panel to sift uncompetitive proposals prior to postal peer review. Applicants whose proposals are rejected at this stage, should it prove necessary, will receive feedback in the form of a brief summary of the expert panel's views.

At the funding prioritisation panel meeting proposals may be grouped by topic and ranked on separate lists, as required. The panel(s) will assess the proposals against the assessment criteria described below.

Applicants will be informed of the outcome as soon as possible after the panel meeting to enable the awards to start on **01 May 2017**.

Assessment criteria

Quality

- Novelty, relationship to the research context, and timeliness
- Ambition, adventure, and transformative aspects identified
- Appropriateness of the proposed methodology

Importance

- International development importance of this research
- Contribution to other research areas, societal challenges, emerging industries
- Secondary benefits to the UK of this research – UK national importance; contribution to the EPSRC's Delivery Plan Outcomes

Impact

- Relevance and appropriateness of beneficiaries identified and collaborators proposed
- Quality of the impact pathways described to facilitate/accelerate impacts of the research in one or more OECD DAC-list countries

Applicants' ability to deliver the proposed research

- Balance of skills of the proposed project team
- Appropriateness of international partnerships, where applicable

Resources and management

- Effectiveness of the proposed planning and management, including risk management strategy
- Appropriateness of the resources requested

Fit to the call

- Proposals should address one or both of the priority research themes identified above. However, proposals should be appropriately focussed.

Feedback

No prioritisation panel feedback will be provided, although the panel outcomes will be published after the meeting on EPSRC Grants on the Web.

Submissions to this call will count towards the Repeatedly Unsuccessful Applicants Policy. Further information about the policy can be found at: <https://www.epsrc.ac.uk/funding/howtoapply/basics/resubpol/rua/>

Guidance

Guidance for reviewers

Reviewers are requested to consider the assessment criteria listed above when considering the strengths and weaknesses of proposals submitted through this call. Please note that the detailed assessment criteria under the main headings differ from typical EPSRC calls. Particular attention should be paid to the international development context of the proposed research.

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

Additional grant conditions

EPSRC grants funded through this call will be subject to the following additional conditions.

Global Challenges Research Fund

The Global Challenges Research Fund is part of the UK's Official Development Assistance (ODA). The investigators must ensure the research that is undertaken as part of this grant is compliant with ODA rules and regulations.

In addition to the provisions in GC23, the investigators must acknowledge the Global Challenges Research Fund and EPSRC in any publications or events associated with this grant.

Investigators must assist EPSRC with any additional reporting requirements requested by the Department of Business, Energy and Industrial Strategy (BEIS).

Starting Procedures

Notwithstanding GC4, this grant has a fixed start date of **01 May 2017**. No slippage to this date will be allowed.

Due Diligence

Where components of the research are sub-contracted to a non-UK research organisation and/or include a Co-Investigator at a non-UK research organisation, the lead UK research organisation must undertake due diligence checks to ensure that the funding will be appropriately used. The research organisation must confirm to EPSRC that it has undertaken suitable due diligence checks within three months of the start of the grant.

Additional Global Challenges Research Fund Conditions

Research must meet the RCUK Research Governance guidelines outlined in GC2. For clinical studies involving human participants and/or patients, appropriate consent must be obtained. Additionally, any research undertaken outside the UK must have both UK and in-country ethical approvals as appropriate.

This award is dependent on continuing Government commitment for the Global Challenges Research Fund initiative. In the event that this support is withdrawn, EPSRC reserves the right to terminate the award.

Due to the funding timescales of the Global Challenges Research Fund, grant extensions will only be considered under exceptional circumstances (in line with the Equality Act 2010) and will require EPSRC agreement on a case-by-case basis. The research organisation remains responsible for compliance with the terms of the Equality Act 2010 including any subsequent amendments introduced while work is in progress; and for ensuring that the expectations set out in the RCUK statement of expectations for equality and diversity are met.

Key dates

Activity	Date
Call for proposals issued	23 August 2016
Deadline for full proposals	15 November 2016, 16:00
Panel meeting	March/April 2017
Funding decision	April 2017
Grant start date	01 May 2017

Contacts

General information and ODA/Global Challenges Research Fund queries:

Dr Gavin Salisbury
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Questions on scope with respect to Engineering:

Dr Katie Blaney
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Questions on scope with respect to Digital Technologies:

Dr Claire Tansley
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Queries regarding the submission of proposals through Je-S should be directed to the Je-S helpdesk:

01793 444164

JeSHelp@rcuk.ac.uk

Please contact your university research office for help and advice on writing your proposal and allow enough time before the closing date for your organisation's submission process.

Change log

Name	Date	Version	Change
Gavin Salisbury	17/08/16	1.0	N/A
Gavin Salisbury	15/09/16	1.1	Clarification of overseas Co-Investigator eligibility and minor correction

Appendices

Overseas costs

Only Co-Investigators and Researchers from research organisations based in Low and Middle Income Countries (LMICs) on the OECD DAC list of ODA recipients are eligible to receive funding through this call; this includes investigators from international research organisations which have appropriate expertise and a significant presence in the LMIC(s) in which projects are based. These non-UK organisations will receive funding through the UK lead research organisation; they cannot act as the lead organisation. Non-UK Co-Investigators based in countries other than LMICs are not permitted.

Please note that overseas costs should only be applied for where they cannot reasonably be covered by existing funding. For example, an overseas Co-Investigator's salary may be fully covered and no UK contribution is required to recompense their time in carrying out the project. In such a case they should be costed at zero hours on the Je-S form, although the hours per week they undertake to contribute to the project should be entered on the form as normal.

The UK research organisation awarded the grant is responsible for the conduct and administration of the grant. It is accountable for the effective use of public funds, and must therefore ensure that all grant monies are subject to proper financial management processes. It is the research organisation's responsibility to ensure that expenditure on collaborations in the UK and abroad is subject to robust controls to ensure value for money and propriety and that all costs should be fully vouched and maintained for possible inspection and checks by, or on behalf of, EPSRC.

If research resources are sub-contracted to a non-UK research organisation or if overseas Co-Investigators are included in a project, the UK lead research organisation must undertake due diligence checks to ensure that the funding will be appropriately used. The lead UK research organisation must confirm to EPSRC that it has undertaken suitable due diligence checks within 3 months of the start of the grant.

Permissible overseas costs are described in the following table. This table applies **only** to costs associated with collaborators from research organisations in LMICs. Collaborations with other countries are permitted, but are subject to standard EPSRC funding rules.

Description	EPSRC fEC contribution
Costs for overseas Co-Investigators and any locally employed staff, i.e., percentage contribution of actual salary. These costs must be entered as Exceptions.	100%
Travel and subsistence for overseas Co-Investigators. These costs must be entered as Exceptions.	100%
Costs charged by the overseas organisation and associated with the research, for example consumables, field work, etc. These costs must be entered as Exceptions.	100%
A contribution towards Indirect and Estates costs at the overseas organisation. This should be calculated as 20 per cent of the overseas research organisation's Directly Incurred	100%

Description	EPSRC fEC contribution
costs. This total should be entered as an Exception.	
Travel and subsistence (including bench fees) for UK-based researchers going abroad to undertake work. This does not include costs incurred directly by the overseas organisation when the UK researcher is active in that country.	80%

Je-S attachments Check List

Standard:

Attachment Type	Maximum Page length	Mandatory/Optional	Extra Guidance
Case for Support	10 pages	M	Comprising up to two A4 sides for a track record, six A4 sides describing proposed research and its context, and up to two A4 sides for management and risk strategy.
ODA statement -'Non-UK components' attachment type	1 page	M	Explanation of how the proposed research meets ODA guidelines. See main text for questions to consider.
Pathways to Impact	2 pages	M	
Workplan	1 page	M	
Justification for Resources	2 pages	M	
CVs	2 pages each	As required	For named and visiting researchers, and Researcher Co-Investigators only.
Project Partner Letters of Support	No page limits	As Required	Must be included from all named project partners. Must be on headed paper, and be signed and dated within six months of the proposal

			submission date.
Letters of Support	No page limits	As Required	In exceptional circumstances a maximum of three letters can be submitted.
Technical assessment	No page limit	As required	
Proposal Cover Letter	No page limit	As required	The cover letter can be used to highlight any important information to EPSRC. This attachment type is not seen by reviewers or panel members.
Other attachment	No page limit	As required	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.