Introduction

There is growing recognition that there is a need for interdisciplinary, challenge-based research at the frontiers of traditional disciplines to achieve real economic and social impacts and help meet global challenges. The “Frontiers of Engineering for Development – Seed funding” aims to address this need by funding collaborative interdisciplinary pilot research projects.

This funding is available to the participants of the Frontiers of Engineering for Development symposium. It aims to facilitate national or international interdisciplinary collaborations between attendees of the symposium, and supports pilot research that addresses global challenges.

All awards under this call must begin on the 29 June 2018 and end on or before 28 June 2019.

Frontiers of Engineering for Development – Seed funding, is competitively allocated funding. We anticipate a 50% success rate for applications.

The research project must be interdisciplinary, pilot-stage and challenge-based research. The funding could support, but is not limited to:

- Gaining preliminary data for a new project between two or more participants of a Frontiers of Engineering for Development symposium
- Developing a further consortium or workshop between two or more Frontiers of Engineering for Development symposium participants, plus additional participants who did not attend the event
- Acquiring data by supporting graduate students to work within the research groups of two or more participants.
GCRF Objectives

Frontiers of Engineering for Development – Seed funding is awarded under the Global Challenges Research Fund, a part of the UK government’s Official Development Assistance (ODA). As such, collaborations supported by this programme must meet ODA requirements, and must:

- aim to promote the welfare and economic development of a country or countries on the DAC list of ODA recipients
- be designed to address a development need
- focus on a specific challenge affecting a developing country or region.

For further guidance on ODA compliance, please follow this link

Eligibility criteria

- This funding is to promote a new collaboration between Frontiers of Engineering for Development symposium participants. The activities can involve non-conference participants, but at least two primary applicants must have attended Frontiers of Engineering for Development in April/May 2018.
- The project must comply with the ODA requirements
- The project must be interdisciplinary
- Pre-existing collaborations are NOT eligible
- Lead Applicant Person Specification
  - The lead applicant must be hosted by a UK university. They may have attended the Frontiers of Engineering for Development symposium in April/May 2018 OR a previous Frontiers of Engineering for Development symposium OR be a previous or existing recipient of EPSRC funding. Note: please be aware that due to time restrictions, RAEng staff will not be able to help you find lead awardees beyond providing you with the relevant lists and databases.
  - They must be employed by a UK university
  - They should be at an early or mid-career stage, usually 0-20 years post-doc. In most cases, they will not yet have reached Professorship. Consideration will be given to those who have taken a non-standard career path or career break.
  - More established researchers can be involved in the project but will often take an advisory position. Therefore, we expect the lead applicant to be the researcher who will undertake a majority of the project work.

Please contact Alice Marks if you have any questions regarding your eligibility.

Submission deadline

The deadline for applications is 12.00 pm (mid-day) GMT on Wednesday 16 May 2018. Any incomplete or late applications will not be considered.

Diversity

The Academy values diversity and the different perspectives people from different backgrounds bring to their work and to the engineering profession. It is the Academy’s policy to ensure that no grant applicant or recipient is disadvantaged or receives less favourable treatment because of age, disability, gender, pregnancy and maternity, ethnicity, religion or belief, sexual orientation or marriage and civil partnership status.¹

¹ http://www.raeng.org.uk/publications/other/academy-diversity-policy
Monitoring

Awardees are expected to submit progress reports. All monitoring, including the submission of documents and reports, is completed through the Academy’s online grant management system.

- **Report**: End of project reports must be submitted jointly by the researchers at the end of the award
- **Follow up report**: To enable the Academy to assess the long-term effectiveness of our schemes we also require a brief follow-up report 12 months after completion of the award.

How to apply

All applications must be submitted via the Academy’s online application system ([https://grants.raeng.org.uk](https://grants.raeng.org.uk)). The lead applicant must first register with the system and provide some basic log-in details to create a profile.

The application form has 6 main sections and should take approximately one hour to complete, assuming you have written your answers to the questions offline and merely need to enter the information, rather than compose it.

The lead UK applicant will need to provide a letter from the appropriate Research Grants Office confirming the application is approved – details of this letter can be found below in section 4. Support and declarations. It is therefore recommended that you approach all necessary personnel as soon as possible. Due to the tight timelines for this application process, it is advised that you forewarn the relevant individuals even before the event, where possible.

If you have any questions concerning the application or the online application system please contact Alice Marks.

Completing the application form

After logging in to the online system and selecting “Frontiers of Engineering for Development – seed funding” you should be presented with the ‘Instructions’ screen. Here you will see some general instructions on how to use the system as well as the following list of the five sections of the application form:

1. Applicant and Institution details
2. Project details
3. Challenge details
4. Goals, objectives and outcomes
5. Support and declaration

At any stage in the application process you can save your progress and return to the application at a later time. You can answer the questions in any order you like so it is possible to skip some sections and return later.

1. Applicant and Institution details
   Please provide details of researchers and their respective institutions involved in this project.

   **Q - Please provide contact details of the Lead and Co-Applicant(s)**
   These are the details we will use to contact the leading applicants. The lead applicant must be from a UK university, and fit the person specification outlined above. At least two
of the lead and/or co-applicants must have been at the most recent Frontiers of Engineering for Development event.

**Q - Researcher details**
Please provide details of every researcher participating in the collaboration, highlighting their expertise, their discipline and what they will contribute to the project. (maximum 200 words per person)

**Q – CVs of the main applicants**
Please upload CVs of the lead and the co-applicants participating in the collaboration.

The format and content of the CVs is left to your discretion, but should include a list of publications. You do not need to include contact details as these are included earlier in the application. Each CV must not exceed three pages, and should be submitted as one document in PDF format.

**2. Project details**
Here you will provide the main summary details for the application, the costs, and an abstract of the proposed activities.

**Q - Project Title**
The essence of the research should be captured in the title and should be as informative as possible. Please use no more than ten words and ensure that it is understandable to a non-specialist reader (maximum 10 words)

**Q – Abstract**
The project summary should provide an overview of the interdisciplinary engineering challenge you are addressing, brief overview of your aims, the programme of activities and the benefits of the research to be undertaken during the collaboration. The summary should be written in language that can be understood by a non-specialist reader (maximum 300 words)

**Q – Total project cost**
The value requested should be between £10,000 and £30,000.

**Q - Start and end date**
Please enter the start and end date of the proposed collaboration. The Award must start on or before **29 June 2018** and end on or before **28 June 2019**.

*Please note that a final report, including a financial statement, must be submitted on or before 28 June 2019, so please ensure you leave time to complete this at the end of your project.*

**Q - Is this a new collaboration?**
Please confirm that this is a new collaboration, as pre-existing collaborations are not eligible.

**3. Challenge details**

**Q – Challenge area**
Please select a maximum of three global challenge areas as listed in the form. If you feel that it will address more than three, please choose the areas where you feel it will have the greatest impact. Please note that selecting more than one area will not necessarily strengthen your application – indeed, a lack of clarity on what you are trying to achieve may count against you! We recommend you only select more than one or two challenge areas by exception.
Q – Please select the DAC list country that will principally directly benefit from this proposal
Please select from the list the DAC list country that will benefit mainly and directly from your proposal

Q – Please list any other DAC list countries or regions that will directly benefit from this proposal
Please list any other countries or regions on the DAC list that will directly benefit from the project. This should take the form of a list, NOT an explanation. While a successful project may have the potential to be rolled out in other countries we recommend that you are as specific as possible as to which countries this early phase of the project will directly benefit. Remember, being specific will count in your favour. (Maximum 10 words)

Q – Official Development Assistance
Please explain how the collaborative project will address the challenge identified in the country or countries listed. You should focus on a specific engineering research challenge that will enhance social welfare and economic development in developing countries.

For more guidance on ODA, please refer to Global Challenges Research Fund Guidance. (maximum 400 words)

4. Goals, objectives and outcomes
Q - Goals and objectives
Please list the main objectives the project will achieve and explain how they benefit from an interdisciplinary approach. In our experience, the most successful projects have specific and realistic objectives that are time sensitive. (maximum 400 words)

Q - The main activities to be undertaken
Describe the programme of work in the format of a list of the research activities and milestones that will be used to measure progress. You should include how you will measure success, and make sure you have built enough time into your proposal to carry out the activities. (maximum 800 words)

Q – Pictures and Diagrams (optional)
Upload any pictures and/or diagrams related to your project in a single pdf document.

Q - The expected outcomes and impacts of the project
Please list the expected outcomes of the project and identify who will benefit from the research, as well as any societal and economic impacts it will have. (maximum 400 words)

Q - Justification of costs
Please provide a breakdown of the funding requested. The total contribution from the Academy must be between £10,000 and £30,000. The amount requested must be an accurate and reasonable reflection of what you expect to spend. Allowable costs and funding guidelines are as follows:

- There is no set limit on how much you can claim between the directly incurred cost headings, i.e. travel and subsistence, consumables, other costs. ‘Consumables’ include project specific costs of small equipment, computer software licenses or publication costs. Examples of ‘other costs’ are conferences and seminar fees.

- Please note that the funding provided by this scheme is not calculated on the basis of full economic costs.

- The totals may come to more than the maximum funding you can request.
under this scheme. Additional costs must be met by the participating Institutions. If the amount noted is higher than the award can provide, please state the contribution to be made by each institution.

- Exchanges do not need to be continuous and applicants may incorporate breaks between the visits. Any such breaks between visits do not count towards the length of the visits, and so should be ignored when calculating the funding requested.

- **At the end of the project, any excess funding awarded will be repayable to the Academy.**

- The funding provided is **not** a salary for the researchers, but a grant to cover their travel, accommodation, living expenses and visas. This can include covering these costs for undergraduate master students, master students, or PhD students BUT PhD student salaries are NOT eligible.

- The host institution can claim up to £2,500.00 as a contribution to project management, administrative and other running costs.

- The funding provided can only be used for the researchers named in the application.

- Allowable costs are any directly incurred costs to carry out the project. These may include costs related to travel and subsistence for students or researchers.

- Subsistence costs should reflect the normal rates applied at the host institution/s. All other costs for which you are seeking support should be based on the most economical option available.

When completing this section, please provide a narrative description of what resources are being requested and why. It should include:

- All necessary justification for costs
- Travel, consumables and equipment, visa fees, student subsistence costs, hosting events, etc.
- The duration of the travel

*Payments will be made to the UK institution and it is up to the collaborating partners to decide how to distribute funds in the most effective way to enable the project to take place.* (maximum 400 words)

5. Support and declarations

**Q – UK Institution/university declaration**

The purpose of the declaration is to confirm that the application is acceptable in principle to the UK research institution/university, and that it has received all necessary internal authorisations.

The declaration terms must be transferred to headed paper and be signed by an appropriate officer from the Research Grants Office or equivalent (i.e. the body which administers grant applications) of the Lead applicant’s institution/university. A scanned copy of the letter should be uploaded by the applicant. We do not require a hard copy.

A summary of the terms that the declaration must contain is shown below – it is important that the **exact phrasing is used**. Please **copy this table directly** into the declaration:
The applicant will be employed by the institution/university for the duration of the award.

The applicant and any co-applicant(s) will be given full access to the facilities, equipment, personnel and funding as required by the application.

The costs submitted in the application are correct and sufficient to complete the award as envisaged. Any shortfall in funding will be met by the institution/university.

**Assessment of applications**

Applicants will be evaluated by a specially-convened panel of Academy Fellows with expertise spanning the breadth of engineering. Each application will be assessed by a minimum of two panel members, one of who will have technical expertise of the application, and the other will be a generalist reviewer. Reviews are followed by a Sift Panel, where the final decision is made. You will be informed of the outcome of your application by mid-June 2018.

All applications will be assessed against the following criteria:

1. **ODA compliance.**
   - Is the aim to promote the welfare and economic development of a country or countries on the DAC list of ODA recipients?
   - Is it designed to address a development need, and
   - Is the focus on developing country problems?

2. **The Research Project**
   - Quality of the proposed research programme including: vision, goals, and interdisciplinary approach, pathway to impact, and dissemination
   - Quality of the applicants’ research track record, the proposed collaborative activities between the applicants and how they complement each other, and any other researchers involved.

3. **The outcome and Impact**
   - Potential benefits and impact of the project
   - Potential impact on development challenge identified, and/or on economic growth and social development in developing countries.