STFC Global Challenges Concepts Guidance Notes

The STFC Global Challenge Programme is making available up to £500k to support small scale demonstrator projects (up to £62.5k total project cost/£50k STFC contribution at 80% fEC). The aim of the scheme is to demonstrate the application to priority areas of the Global Challenges (Energy, Environment, Healthcare and Security) of innovative science, technology and expertise developed from STFC's core science programme.

The objectives of the programme are:

To support small scale demonstrator projects to bring STFC expertise and technology that can be applied to global challenge problems to a proof of concept stage in readiness to access and de-risk external funding.

To complement and underpin other STFC funding schemes such as Innovation Partnerships (IPS) that are aimed at the transfer of technology and expertise from STFC research into the commercial marketplace, as well as those such as the Challenge Led Applied Systems Programme (CLASP) that provide support for larger demonstrator projects and industry-ready prototypes addressing the global challenges.

Eligibility

Projects must clearly show that the innovative science, technology, applications and expertise has been developed through the STFC core Science Programme (nuclear physics, particle physics, astronomy, space science) or the STFC national facilities and laboratories.

Each project must involve at least one Principal Investigator or Co-Investigator employed in an academic group or STFC facility/department previously or currently funded by STFC to undertake work in these areas.

The proposal must describe how the work will develop science, technologies, applications and expertise arising directly from the STFC funding. User involvement is strongly encouraged and collaborations with academics, industry or end users are encouraged. Projects should be interdisciplinary. In particular, Healthcare projects must be able to demonstrate a clinical need. Please contact Tracey.McGuire@stfc.ac.uk to check eligibility.

The work proposed should clearly link to and develop technologies and expertise from STFC-funded projects.

Projects should aim to bring existing technologies and expertise to a level where their relevance will be more easily appreciated and taken up by end-users in the Energy, Environment, Healthcare and Security fields with a view to attracting the next stage of funding. Proposals should clearly state the added-value and leverage that Global Challenges funding would bring.

The Global Challenges Concepts Fund is open to Research Organisations that are eligible for STFC Grants, i.e. Higher Education Institutes, recognised academic analogues, such as institutes funded by other Research Councils and other organisations eligible to apply for STFC funding, including CERN, ESRF and ESO. Only academic partners may request funding.

For further information applicants should refer to the STFC Research Grant Handbook.

Global Challenge Priority Areas

Example areas within the Challenge themes are shown below. This list is not exclusive and we would welcome any novel and innovative proposal that address other topics within the four Global Challenge themes. Further guidance can be obtained from Tracey McGuire tracey.mcguire@stfc.ac.uk

Energy
Example areas: storage, future grids, energy efficiency, nuclear, thin film solar cells, bioenergy, cleaner fossil fuels, sensing & monitoring, air-fuel synthesis, negative emissions technologies.

Environment
Example areas: bioinformatics, environmental radioactivity, geological repositories, pollution, space weather, tropical forests, water, farming & food production, resilience to extreme events, smarter cities & integrated systems, resource efficiency, improved recycling & extraction from waste, monitoring, climate system modelling & translation/ communication to non-expert users.

Healthcare
Example areas: dementia and mental health, ageing population, diabetes & obesity, cardiovascular disease, cancer care, pandemics and climate change related effects.

Security
Example areas: computation approaches (including algorithm development) for the analysis and interpretation of large, complex and incomplete data sets, border security and contraband interdiction, chemical and nuclear containment and remediation, structure and dynamics of societies.

Information about previously funded projects is available on the STFC website.

Capital

The budget for the Global Challenge Concepts scheme does not include an allocation for capital. Therefore, proposals should not include requests for funds for equipment purchases in excess of £10k (inclusive of VAT).

Assessment criteria and Peer Review

Global Challenge Concept applications are assessed by an independent Panel comprised of members from academia and users and do not undergo external peer review.

All Panel members are required to sign a standard STFC Non-Disclosure Agreement.
The scoring criteria are as follows:

- Project quality, including:
  - whether the scientific or technical need for the project has been clearly established
  - scientific quality and novelty of the proposal
  - suitability of applicants and, where relevant, partners

- Potential outcomes, including:
  - likelihood of attracting next-stage funding, especially from a non-STFC funding source
  - potential for impact in one of the Global Challenge theme areas
  - added value of Global Challenges Concepts funding

- User engagement
  - whether there is appropriate user involvement in the project.

- Linkage to STFC-funded science, technology or expertise

Application Process

- Applicants must use Je-S (Joint Electronic Submission) to submit their proposal by 16:00 on the closing date. Any queries relating to Je-S should be directed to the Je-S helpdesk by email JeSHelp@rcuk.ac.uk or telephone on +44 (0)1793 444164. It is the responsibility of the Principal Investigator (PI) to ensure their institution's administration department submits the proposal before the submission deadline.

Full details of the terms and conditions under full economic costing (fEC) principles can be found in the fEC Grants Handbook www.stfc.ac.uk/rgh.

11pt Arial (or equivalent) font should be used throughout, with a minimum of 2 cm margins around each page **Please submit all application attachments in pdf format to JeS to avoid any issues with corrupt files**

The application should include:

- Je-S proposal proforma
- Case for Support: maximum of 4 pages (Mandatory)
- Where relevant project partner letters of support
- Data Management Plan (maximum of 2 pages)
- One page Gantt chart (Mandatory
- Covering Letter (Optional)

Case for Support
The Case for Support (maximum 4 pages) should be clear and concise and explicitly cover:

- The un-met need to be addressed and how it relates to the Global Challenges
- Potential impact on the Global Challenge area and its importance
- The link to science, technology or expertise arising from the STFC core Science Programme (nuclear physics, particle physics, astronomy, space science) or the national facilities (CLF, ISIS, Diamond)
- Technical outline of the proposal
- Added value that Global Challenges funding will bring
- Participants, track record and the justification for any collaborations
- User engagement
- Timescale and outline work plan
- Proposed route for next stage development and funding

Responsible Innovation
Applicants should confirm that they have considered whether the proposed work raises any particular issues relating to Responsible Innovation and, where relevant, briefly describe how these will be addressed. For further information on Responsible see, for example, the EPSRC Framework for Responsible Innovation.

Project Partner Letter (if applicable)
The partner can either be a supporter or co-recipient. You will need to complete the project partners section (select Edit Project Partners).

Resources to be provided by any project partners, whether in cash or in-kind contributions, should be clearly identified in the proposal. STFC will pay up to 80% of the total costs of the project excluding the project partner contribution. Project partners' contributions in cash or in-kind should be seen as additional to the STFC's contribution and are not considered part of the fEC of the project.

Data Management Plan
Proposals for projects that would result in the production or collection of scientific data should include a data management plan as an attachment to the JeS proforma. The data management plan attachment is mandatory and should be no longer than two pages of A4. If it is felt that a DMP is not relevant to a proposal then an attachment explaining this should be uploaded to pass validation. This, together with any costs associated with it, will be considered and assessed by the normal peer review process. The data management plan should explain how the data will be managed over the lifetime of the project and, where appropriate, preserved for future re-use.

Collaboration Agreements
If the project includes more than one organisation (academic or non-academic) on the JeS form, a collaboration agreement must be signed between all organisations and a copy sent to the STFC office before the project start date. This should include how IP will be managed.

Example model research collaboration agreements that may be used as a basis for specific agreements between partners have been developed through the Lambert toolkit for collaborative research and can be found through the following link Lambert Toolkit.

Any additional documents such as CVs, extra results, pathways to impact statements, list of publications etc. will be removed and not sent for review.

It is the responsibility of the principal applicant to ensure that any information is worded in such a way to protect commercially confidential or sensitive areas. STFC will assume that the applicant has obtained necessary permission from any party that may be involved in the application.

It is expected that in the majority of cases the projects will not exceed 12 months in duration although it is recognised that there may be exceptional cases where longer duration projects are required.

Rejections and Resubmissions

Projects rejected by the panel cannot be submitted again for at least 12 months unless invited for resubmission. Feedback will be given on all applications. The decisions made during the meeting are accepted by all panel members and are final.

Proposals invited for resubmission may resubmit to the next call and should resubmit at the latest 12 months after the first submission.

A resubmission should be an entirely new submission (and will be treated as such) and must contain a completed JeS proforma, Case for Support and all other relevant documents. The submission should contain all of the information necessary for assessment and assessors should not need to rely on the initial application for clarification. In order to highlight the response to the panel comments, the applicant should submit a cover letter in which they summarise the responses made to the panel comments. This should not contain extra information additional to the case for support, proforma or Gantt.

PROJECT MONITORING AND REPORTING

Research Fish

All award holders are required to submit outputs from their Global Challenge Concept project on the Research Fish platform. Award holders are required to provide information about outputs arising from their work annually during the period of the award and normally for at least five years after the award has terminated. The Global Challenge Programme Manager will monitor outputs on all Global Challenge Concept grants and may contact you for further information on outputs and outcomes, in particular with a view to publishing a case study.

CONTACTS

The STFC office can provide help and support on Global Challenge Concept grant applications. We encourage potential applicants to contact the office to discuss their proposal. Please contact Tracey McGuire (tracey.mcguire@stfc.ac.uk).

ANNEX 1: CERN OR ESO SCIENTISTS AND ENGINEERS

Eligibility Definitions

Global Challenge Concepts applicants from CERN or ESO will be a scientist or engineer performing one of the following functions:

- Research, development or professional work including academic study and/or supervisory responsibility
- Leadership of research, development or professional work involving a wide range of academic study and/or strategic responsibility
- Responsibilities of the highest level of scientific and/or management complexity, originality and wide distinction

All applicants from CERN or ESO should provide a covering letter to their Research Proposal stating confirmation that they meet the eligibility criteria as set down above.

An applicant's contract of employment with CERN or ESO must extend for at least the period of the grant for which they are seeking funds.

The Principal Investigator need not be a UK citizen.

Additional Guidance

The collaborating organisation must have its research or manufacturing base in the UK.

Funds requested – all amounts requested should be given in pounds sterling.

Estates and indirect costs will not be applicable to Global Challenge Concepts grants awarded to CERN or ESO. The estates and indirect costs addition is covered in the STFC subscription payment to CERN or ESO. If the grant is awarded, STFC will pay 80% of the full economic cost of research projects, excluding estates and indirect costs.

Declaration –completed Research Proposal form must be approved by the appropriate Head of Department or equivalent. Applications from CERN shall be submitted through the Director of Technology Transfer and Scientific Computing; applications from ESO through the Head of Administration.

Additional conditions – successful Global Challenge Concepts awards to CERN or ESO applicants will be subject to the standard terms and conditions of STFC awards although additional grant conditions might be required on individual grants.