STFC Horizons Programme: Investigating Solutions for Net Zero

Call Guidance

Proposals to be submitted through UKRI Joint Electronic Submissions to the 'STFC Horizons (Open) Call'

Important Dates

Event	Date	Time GMT
Call Announcement	October 2020	
Call open	05/05/2021	09:00
Submission deadline	16/06/2021	16:00
Assessment Panel Meeting	August 2021	
Outcomes Announced	September 2021	
Start of successful projects	November/December 2021	

Contents

1. Introduction

1.1 This document sets out the guidelines for STFC Horizons Programme (SHP) – Investigating Solutions for Net Zero Call. While the document provides specific guidance concerning this grants round, it should be read in conjunction with the [STFC Research Grants Handbook](#).

1.2 The grants round and these guidelines have been developed to ensure that the process is:

- transparent and accountable, particularly with respect to the means of research prioritisation;
- efficient, both in terms of the requirement for applicants and the reviewers – both panels and peer reviewers, and the use of STFC office resources; and
- provides a timely outcome.

2. Background

The STFC Horizons Programme, the new name for the Solutions to 21st Century Challenges programme, aims to proactively build and support collaborations between STFC, UKRI, and external partners so that our community is an active partner in strategically selected, multi-disciplinary programmes. The programme, announced at the STFC Knowledge Exchange event in October 2020, addresses targeted priority areas, around which STFC's capabilities can be strategically applied, in partnership with UKRI and external partners.

These areas are:

- Emerging/Transformative Technologies – underpinning technologies of the future
- Healthcare – technology and data for a healthy population
- Net Zero – future energy sources and supply and addressing the climate emergency
- Security – UK defence, security and resilience

2.1 STFC Horizons Programme funding provides pump-priming opportunities that support the STFC community's capacity to contribute in targeted priority areas, or proof-of-concept funds that allow focused development of promising concepts in the targeted priority areas.

2.2 *The next priority area addressed within the STFC Horizons Programme will be the Net Zero societal challenge.* The next targeted societal priority area involves a call for projects aimed at exploring and/or demonstrating the application of STFC-funded science, technology, applications or expertise **specifically within the Net Zero priority**, with the primary intention of developing technologies and solutions to support achieving net-zero carbon dioxide emissions.

2.3 We welcome proposals that fit within the Net Zero theme, suggested topics include but are not limited to:

- The application of multi-disciplinary and multi-scale modelling, data analytics, operational analysis (digital twins) and Artificial Intelligence
- Data centres and infrastructure: promotion of data curation and sharing
- Undertaking the development and testing of materials for energy applications and energy storage (fuel cells, batteries, reactors, catalysis)
- Collation, analysis, and application of satellite data in regard to emissions tracking and climate change modelling
- Low/zero carbon fuels, including Hydrogen and ammonia, regarding their production, storage and use (including transport applications)

- Wind energy
- Nuclear technologies
- The development of instrumentation and sensors, and energy demonstrators and microgrids

2.4 For further information on the STFC Horizons programme, please visit the STFC Horizons Programme website.

3. Guidelines for Projects

3.1 It is expected that in the majority of cases, projects will not exceed 12 months in duration. In instances where this is not the case, the maximum project length should be less than 18 months.

3.2 The maximum award for each project will be £200k. Following fEC guidelines, STFC contribution to the project will be at 80% of £200k. The amount applied for should reflect the nature and scale of the activity. The total budget available is expected to be approximately £800k.

3.3 There is no capital budget for this call and proposals should not include requests for funds for equipment purchases in excess of £10k (inclusive of VAT).

3.4 Activities that will be funded include:
- Reviews and feasibility studies to identify potential for application of STFC-funded science, technology, applications and expertise to the Net Zero priority, to provide additional 'landscape intelligence' related to the STFC community's capabilities to address the Net Zero thematic priority
- Proof of concept or demonstration projects utilising STFC-funded science, technology, applications and expertise applied to the Net Zero priority. Such 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 with a view to attracting the next stage of funding. Proposals should clearly state the added-value and leverage that SHP funding would bring.

3.5 All applicants should consider their next steps or ambitions in progressing the project beyond any funding provided by SHP, with reference to this in the case for support.

4. Eligibility

4.1 Proposals for projects must clearly demonstrate that the science, technology, applications and expertise involved originated from the STFC core Science Programme or the STFC national facilities and laboratories. STFC core Science Programme includes Nuclear Physics, Particle Physics, Astrophysics, Space Science, Accelerator Science, or computing in support of these, or research conducted at the STFC facilities, CERN, ESO or ESRF is also welcome.

4.2 **In order to be eligible, proposed activities must include a PI from an STFC-funded department at an eligible research organisation or from an STFC lab/facility.** Applicants should be current or past recipients of STFC funding. If an applicant has received STFC funding, but not in his/her name (for example through a post-doc position) then they are still eligible to apply for this call, provided they are attached to an eligible RO and can show they will remain under contract for the length of the grant. Only academic partners may request funding. If there are any queries around eligibility, please contact STFCHorizons@stfc.ac.uk

4.3 For further information on eligibility, applicants should refer to the STFC Research Grants Handbook and the [UKRI eligibility page.](UKRI eligibility page)

5. Application Process

5.1 In advance of submitting a proposal to this call, we ask that you contact our team inbox STFCHorizons@stfc.ac.uk at the earliest opportunity to express your interest. Please provide a short summary of the proposed project, including funds to be requested (approximate figures). We will be able to advise you as to whether the project fits within the remit of the call and if you/your team are eligible within the call. Please do not include any confidential information at this stage.

5.2 Once you have received an affirmative response from the team, final proposals should be submitted online using the Je-S login. This screen also has links to tutorials and system help. In the event of any queries relating to the Je-S system please contact the Je-S helpdesk directly. See Section 13 for contact details.

5.3 Once logged in, follow the steps below to start your application
Documents screen: select 'New Document'
Add new document screen: Select 'Call search' (highlighted at top of screen). When prompted, type in the call title "STFC Horizons (Open) Call" and select from the list created.

The remaining three selection fields will be automatically populated. These should read:
- Council: STFC
- Document Type: Standard Proposal
- Scheme: Futures
- Select the Create Document button. Please prefix the title of your application with Net-Zero.

5.4 Failure to select the correct options at this stage could result in your application not reaching the correct council or call. This will lead to your application not being considered for this call.

5.5 Applicants must ensure that they have obtained permission of any other person named on the proposal form (for example any Co-Investigators or Project Partners) for the provision of their personal information to UKRI and the processing of their data by UKRI for the purpose of assessing the application and management of any funding awarded.

5.6 Any co-investigators that will be named on the application must have an individual Je-S accounts for themselves or will need to create an account in order to be added to an application.

5.7 All documents should use 11pt sans serif font throughout, with a minimum of 2 cm margins around each page. Please submit all application attachments in pdf format to Je-S to avoid any issues with corrupt files. Refer to the Je-S Handbook for details.

5.8 The table below sets out the requirements for documents to be submitted as part of your proposal:

Je-S proposal proforma	Mandatory, exactly 1
Case for Support	Mandatory, exactly 1 Maximum of 6 pages
Letter of support	Where relevant, up to 3 attachments
Data Management Plan	Mandatory, exactly 1
Gantt chart	Mandatory, exactly 1
Covering letter	Optional

5.8.1 **Case for Support** (maximum 6 pages) should include**:**
- How the proposal relates to the Net Zero priority

- The link to science, technology or expertise capabilities 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 and novelty of the research
- Added value that this funding would bring
- Participants, track record and the justification for any collaborations
- User engagement, especially to demonstrate evidence of user needs
- Timescale and outline work plan
- Proposed route for next stage development and follow on funding beyond SHP

5.8.2 **Letter of Support** (maximum 2 pages each)
Please include letters of support for the following:
- From the partner country institutions involved in the project
- Any organisations entered on the Je-S form as project partners. (A project partner is an organisation which contributes in cash or in kind to the project, but which is not requesting any money.)

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.

The Je-S system only allows for a maximum of three attachments. If the proposal is benefited by additional letters of support, please combine multiple letters into one document before uploading it. Further guidance can be found on the STFC website.

5.8.3 **Data Management Plan** (maximum two pages): guidance can be found on the STFC website.
5.8.4 Full details of the terms and conditions under full economic costing (fEC) principles can be found in the Research Grants Handbook
5.8.5 It is the responsibility of the principal investigator 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.
5.8.6 Any queries relating to Je-S should be directed to the Je-S helpdesk (see Section 13 for contact information).
5.8.7 Do not attach any documents additional to those listed in the table above even though Je-S allows other documents, such as CVs, list of publications etc. The proposal will be returned to you for these to be removed before being sent for peer review. This will delay the peer review process.
5.8.8 We recommend you start your application early. You can save completed details in Je-S at any time and return to continue your application later.

6. Submitting proposals with applicants from both UK ROs and STFC Labs

6.1 Finances that are associated with the STFC Labs should be separated from those of the UK ROs. This is best done by submitting joint proposals with lead and non-lead

organisations. There is no specific condition on who should be the lead organisation. This is entirely up to the project team and how the project is designed.

6.2 The lead applicant should create their proposal first following the steps below
- Select "Edit Joint Proposals"
- Select yes to "is this a joint proposal", Select yes to "are you the lead RO", the Joint reference number is generated. The following information will appear under the heading of Joint documents:
  - Lead document (detailing Principal Investigator, RO and Department)
  - Non-lead (same details as lead document displayed at this stage) with the option to assign owner or delete.
- Select Assign Owner to add the details of the Principal Investigator to the non-lead. An email alert will be generated to the PI of the non-lead that the document is available in their Je-S account

6.3 It is mandatory for the non-lead application to submit a completed Je-S proposal form. This form will not include all the sections which are available to the lead. It is most important to complete the sections on finances. The non-lead part can view the attachments on the lead part. All other attachments are optional. Documents mentioned is Section 5 are relevant only to the lead grant.

7. Submission

7.1 Your proposal must be submitted by 16:00 GMT on Wednesday, 16 June 2021.

7.2 Note that clicking 'Submit document' on your proposal form in Je-S initially submits the proposal to your host organisation's administration, not to STFC. Please allow sufficient time for your organisation's submission process between submitting your proposal to them and the call closing date.

7.3 Applicants can view the status of their proposal online by logging into the Je-S system. STFC office staff are unable to view the proposal until it is finally submitted by the institution's administration department and has undergone initial checks by the UKRI grants team

7.4 It is the responsibility of the Principal Investigator (PI) to ensure their institution's administration department submits the proposal before the submission deadline. Proposals submitted after the closing date WILL NOT be considered.

8. Peer review process

8.1 **Reviewers** - All applications will go through a peer review process. Each application will be allocated up to three reviewers. Applicants can recommend one reviewer via Je-S but it is not guaranteed that the nominated reviewer will be used.

8.2 **Responses to reviewers** - Following the review process, applicants will be given the opportunity to see and comment on the reports via Je-S. Please refer to the Je-S Handbook for details.

8.3 **Panel meeting** – This meeting will take place to consider all the proposals, reviewer comments and responses to the reviewers. The panel will make funding recommendations to STFC.

8.4 **Introducers** – A member of the panel will be allocated as "introducer" for each proposal. As in previous rounds, the Introducer's role is to clarify any issues which are unclear in the grant proposal documentation and lead the discussion at the Panel Meeting.

8.5 The UKRI principles of peer review can be found on the STFC website.

9. Assessment

9.1 The panel will assess proposals against the following:

- **Strategic value within the STFC programme:** The alignment of the project to STFC strategic objectives and core business activities, i.e. STFC capabilities and evidence of the unique contributions that STFC's laboratories, facilities and external research communities can make to the proposed activity. Where there is clear evidence of STFC capability, additional alignment to shared interests and priorities across UKRI or to known government department priorities is particularly welcomed.

- **Social and Economic Impact from the proposed research:** Potential scale of impact

- **Value for Money and Pump-priming Potential:** Opportunities for follow on funding beyond STFC (pump-priming viability) and evidence for the investment being good value for money for STFC

- **End User Engagement:** Whether the need for the project has been clearly established and potential for future impact, through a clearly demonstrated 'pull' from end-users of research. Suitability of the applicants and partners and strength of user involvement

- **Scientific/Technical excellence:** specific objectives of the project demonstrate excellence, novelty and appropriateness of the proposed activities

10. COVID-19 Guidance

10.1 UKRI recognises that the COVID-19 pandemic has caused major interruptions and disruptions across our communities. We are committed to ensuring that individual applicants and their wider team, including partners and networks, are not penalised for any disruption to their career(s) such as breaks and delays, disruptive working patterns and conditions, the loss of on-going work, and role changes that may have been caused by the pandemic.

10.2 Reviewers and panel members will be advised to consider the unequal impacts of the impact that COVID-19 related disruption might have had on the track record and career development of those individuals included in the proposal and will be asked to consider the capability of the applicant and their wider team to deliver the research they are proposing. Where disruptions have occurred applicants can highlight this within their application, if they wish, but there is no requirement to detail the specific circumstances that caused the disruption.

10.3 UKRI acknowledges that it is a challenge for applicants to determine the future impacts of COVID-19 while the pandemic continues to evolve. Applications should be based on the information available at the point of submission and, if applicable, the known application specific impacts of COVID-19 should be accounted for. Where known impacts have occurred, these should be highlighted in the application, including the assumptions/information at the point of submission. There is no need to include contingency plans for the potential impacts of COVID-19. Requests for travel both domestically and internationally can be included in accordance to the relevant scheme guidelines, noting the above advice.

10.4 Reviewers will receive instructions to assume that changes that arise from the COVID-19 pandemic, post-submission, will be resolved and complications related to COVID-19 should not affect their scores.

10.5 Where an application is successful, any changes in circumstances that affect the proposal will be managed as a post-award issue.

11. Additional Information

11.1 **Framework for 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.

11.2 **UKRI terms and conditions for funding**
Successful applications will need to comply with the standard UKRI T&C for research grants as well as any specific T&C for this particular call. Please see the UKRI website for details of what to expect.

11.3 **Collaboration Agreements**

Successful applications which include more than one organisation (academic or non-academic) on the Je-S form, must have collaboration agreements signed between all organisations. A copy of this should be sent to the STFC office before the start of the project. Such an agreement 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](#)**.**

11.4 **Unconscious bias -** Details can be found on the [STFC website](#)

11.5 **Equality and Diversity**

Information about STFC's commitment to promoting equality and diversity can be found on the [STFC website](#).

12. Researchfish

All award holders are required to submit outputs from their STFC Horizons Programme project on the UKRI [Researchfish 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 STFC Horizons Programme team will monitor outputs on all STFC Horizons Programme grants and may contact you for further information on outputs and outcomes, in particular with a view to publishing a case study.

13. Contacts

13.1 The STFC office can provide help and support on Horizons Programme grant applications. We encourage potential applicants to contact the office to discuss their proposal.

For submitting Expression of Interest
email: STFCHorizons@stfc.ac.uk

13.2 For all queries relating to Je-S please contact the Je-S helpdesk
email: JeSHelp@je-s.ukri.org
Phone: +44 (0) 1793 44 4164
They can be contacted Monday to Thursday 08.30-17.00 UK time and Fridays (excluding bank holidays and other holidays)

13.3 For non-JeS enquiries please contact
Kamalam Vanninathan
Programme Manager for STFC Horizons Programme
email**:** kamalam.vanninathan@stfc.ukri.org**.**