STFC Late-Stage Commercialisation Scheme Intention to Submit Guidance Notes

Contents

INTRODUCTION

This is a document that aims to give applicants an outline of the late-stage commercialisation scheme so that they can apply for the scheme at the Intention to submit (ItS) stage. This scheme is jointly funded by Innovate UK.

The late-stage commercialisation scheme is one of two new knowledge exchange schemes offered by STFC to support the PPAN community, which are designed to fund projects from initial research and development through to commercialisation. The PPAN community is defined as particle physics, particle astrophysics, astronomy, nuclear physics, accelerator physics, solar and planetary science, quantum science and computing that underpins these areas.

Both schemes are designed to facilitate the transfer of STFC PPAN funded research into an industrial setting over different stages of commercialisation: -

- **Early-Stage Research and Development**
    - To fund research and development developed in the PPAN community which focuses on technology development from technology readiness level (TRL) 1-5. In partnership with industry as appropriate.

- **Late-Stage Commercialisation**
    - To fund commercialisation (TRL 5-7) developed from STFC PPAN funded research in partnership with industry as appropriate.

Late-Stage Commercialisation Scheme

The main aim of the late-stage commercialisation scheme is to support technology development addressing current challenges facing the PPAN community and the UK. This includes technologies or ideas originating from the core STFC funded areas of particle physics, particle astrophysics, astronomy, nuclear physics, accelerator physics, solar and planetary science, quantum science and computing that underpins these areas.

A secondary aim of the scheme, during the lifetime of the award is to further develop products and technology (move them through the TRL) working with industry where appropriate.

This scheme is funded jointly with Innovate UK. Working together to offer the late-stage commercialisation scheme has given us the ability to give applicants and their teams the opportunity to take part in ICURe, which is a pre-accelerator programme for researchers. The programme is designed to help explore the commercial application and potential of UK research.

Within the ICURe programme, Innovate UK have developed a range of funding and commercialisation training with industry experts, and this is delivered via 4 key programmes; ICURe Engage, ICURe Discover, ICURe Explore and ICURe Exploit.

During the late-stage commercialisation scheme applicants must take part in the initial two ICURe programmes offered by Innovate UK (ICURe Engage and ICURe Discover).

We are not able to fund industry through this award.

The scheme provides funding for a maximum of £300,000 a year fEC for two years (equivalent to £240,000 at 80% fEC awarded to the applying research organisation). This funding is available per project and not per iRO.

As this scheme is aimed towards technology development, working with a Small or Medium-sized Enterprise (SME) where appropriate in the project is encouraged, however applicants can choose to submit without industry involvement or start to collaborate with industry at any point during the lifetime of the award.

A project partner from a non-academic institution(s) (for example, government departments,

charities, NHS foundations etc.) is also allowable. Any partner should provide either financial or in-kind contributions to the project and be committed to the success of the project.

ELIGIBILITY

Proposals for projects must clearly demonstrate that the science, technology, and expertise is developing the STFC core PPAN Science Programme for its benefit and the UK. Applications will be assessed by the STFC External Innovations office staff for eligibility following an Intention to submit submission and returned at this early stage if they do not fulfil the requirements. These will be viewed as an office return, not as a panel rejection.

Project Lead

The late-stage commercialisation scheme is only open to those who meet the eligibility criteria defined in the Guidance for Applicants. If you have any queries on eligibility please contact the STFC office.
We expect that there is only one application per project, with all joint applications being through the lead applicant.

Lead Research Organisation

The RO must be eligible to hold UKRI grants, i.e. be an approved UK Higher Education Institution, Catapult, Research Council Institute or other Public Sector Research Establishments, or an Independent Research Organisation. Full details of approved RCIs and IROs can be found on the UKRI website. For further information applicants should refer to Guidance for Applicants.

Non-Academic Organisations

Industrial organisations, including research/training organisations and not-for-profit operations, must collaborate with a lead academic partner and demonstrate that they possess the relevant technical capabilities and capacity to meet the scheme's aims. These collaborators are expected to be **Project Partners** – donating funds or aid in kind to a project. Furthermore, as this scheme is UK funded, the organisation must have a strong presence and benefit to the UK economy. The industrial support may be based outside the UK but it is expected that value should be added to the UK economy, both within the project timescale and after the award has completed.

In cases where the Project Lead has current or former links to the project partner organisation(s) then this should be clearly declared alongside details of their involvement and how it will be managed/mitigated. Furthermore, any contributions to the project should be clarified, so that (for example) any support is not being double counted as commitments by the academic leads.

COVID-19

UKRI recognises that the COVID-19 pandemic has caused major interruptions and disruptions across our communities and 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.

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.

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.

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.

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

TIMETABLE

The Intention to submit for the late-stage commercialisation scheme will open on 11 May 2023 at 5pm.

The intention to submit for the late-stage commercialisation scheme will close on 1 June 2023 at 5pm

Applications for the full scheme will open on The Funding Service at 9am on 8th June. Only those who have submitted an eligible Intention to submit will receive a link to apply to the full scheme and will therefore be able to apply.

The application closing date for the late-stage commercialisation scheme is 5th September 2023 at 4pm.

All projects must start on or before 1st October 2023

EQUIPMENT
There is no separate budget for Capital/Equipment in this scheme. Please contact the office if this will be an issue.

APPLICATION PROCESS

It is Mandatory for anyone wishing to submit to the late-stage commercialisation scheme that you make STFC aware of your intention to submit (ItS) by sending an email to KEGroup@stfc.ac.uk prior to 1st June 2023 at 5pm using the STFC template provided to provide the information requested.

In the template please give details of the Project Lead name and RO, area of PPAN you will be working in, title of the application (which will be the title that you submit in the final application) and a summary of the project you will submit, clearly indicating the TRL of the technology or science (maximum 200word limit). Please ensure that if you are submitting a joint application that one institution leads on this through one lead applicant. We expect that Joint applications are submitted by one lead applicant on one template naming the joint applicants.

STFC will acknowledge your submission to the late-stage commercialisation scheme, however any intention to submit emails that are received after 1st June at 5pm will not be acknowledged or accepted.

Upon receipt of your intention to submit STFC will check the applications for eligibility and then send through a link to The Funding Service where you can complete a full application for the scheme and further call guidance.

Full Application stage

Applications for the full scheme will open on The Funding Service at 9am on 8th June. Only those who have submitted an eligible Intention to submit will receive a link to apply to the full scheme.

Once you have submitted your full application
proposals will be assessed by a panel of experts, and final decisions made shortly after. Key dates can be found on the funding finder page and will be circulated to all applicants following submission. The full stage call will close at 4pm on 1 September 2023.

Proposals submitted after these deadlines will not be accepted or acknowledged.

All full stage applications should be made *via* The Funding Service platform. To submit a proposal, applicants should send through an Intention to submit email as described above and a link to the scheme on The Funding Service will be sent along with any further call guidance via email to the Principal Investigator.

STFC will pay up to 80% of the total costs of the project excluding the project partner contribution. Project partner's contributions, either direct or in-kind, should be as additional to the STFC's contribution and are not considered part of the fEC of the project.
It is the responsibility of the lead applicant to ensure that the total budget requested by all members of a project (i.e. information supplied in the application) is within the financial limits of the award.
It is expected that the applicant applies for the full two-year grant which will be subject to a light touch review at the end of year two of the grant.

Information for project partners

It is expected that project partners will contribute an appropriate level of support throughout the project and have a vested interest in any outcomes. This information should be detailed in the application and through a letter of support. The PI must submit this information on behalf of the supporting partner.

ASSESSMENT

Panel assessment

Applications are assessed by an independent panel comprised of academic members from the PPAN community as well as industry. Details of the panel membership will be shared with applicants once the call has closed.

Confidentiality and Peer Review

STFC takes all reasonable steps to ensure that the contents of applications submitted are treated as confidential. All members of the Panel sign a non-disclosure agreement and peer reviewers must

comply with the Research Councils Reviewer Protocols. Reviewers and Panel members are asked to declare conflicts of interest in relation to an application before they are asked to assess.

Please see STFC's guidance on [confidentiality and conflicts of interest](#). Should it arise the reviewer is in violation of this, the nominated reviewer will not be invited to review.

Criteria for Assessment for Full stage submission

As the late-stage commercialisation scheme is designed to support research and development of technology, applications will be assessed against the following criteria. Each criterion will be assigned an equal score by the panel, based on the information provided by the applicant and feedback from external reviewers. This score will be used to determine which projects receive funding. These assessment criteria are:

Vision
- The proposal should clearly indicate the vision for the project
- Where possible the applicant should indicate the developing technology in terms of international and UK benchmarking.

Approach
- This section should detail how the project will be approached
- The proposal should be feasible from a technical standpoint and build on strong underpinning quality science.
- The proposed project must include a programme of excellent technical development.
- The proposal should build on solid and well-thought-out technical evidence.

Applicant and team capability to deliver

Evidence of how you, and if relevant your team, have:

- contributed to developing a positive research environment and wider community
- the relevant experience (appropriate to career stage) to deliver the proposed work
- the appropriate leadership and management skills to deliver the work and your approach to develop others
- the right balance of skills and expertise to cover the proposed work

Resources and cost justification

- The extent to which the resources and costs associated with the application are appropriate and justified

Strategic Value within the STFC Programme

- The extent to which the resources requested, relative to the anticipated outputs, represent an appropriate investment of STFC funds (value for money).
- Degree of support from Project partners both during research and after funding, if relevant
- The added value the proposed research may have on the PPAN community.
- Consideration of the future of the project after this funding.

Social and Economic Impact

- The benefit/impact the proposed research may have on the wider scientific community outside of the PPAN community.
- The extent to which the outputs of the proposed work show direct potential for economic and societal benefit to the UK.
- Describe the beneficiaries

Ethics and Responsible Research and Innovation

What are the ethical or responsible research and innovation (RRI) implications and issues relating to the proposed work? If you do not think that the proposed work raises any ethical or RRI issues, explain why.

What the assessors are looking for in your response
- Demonstrate that you have identified and evaluated the relevant ethical or responsible research and innovation considerations, and how you will manage them.
- Some exemplars of this could be; If you are collecting or using data you should identify: any legal and ethical considerations of collecting, releasing, or storing the data including consent, confidentiality, anonymisation, security and other ethical considerations and, in particular, strategies taken to not preclude further re-use of data, environmental responsibilities
- Formal information standards with which study will be compliant

The individual nature of proposals submitted, means that the partner's contribution will vary in context and each application will be assessed on its own merit. The Assessment Panel will look for evidence of project partner commitment, which could be shown by direct funding and/or in-kind support. The Panel will consider whether this commitment is substantially justified. Applicants are advised to obtain the necessary clearances from collaborators with a commercial interest in the content of the application before submitting it.

If the proposal is from CERN, ESO, or the ESRF, then the extent to which the proposed project will enable CERN, ESO or ESRF technology to be exploited by UK industry or non-STFC academic sectors will be considered.

RESUBMISSION
Unsuccessful applications cannot be submitted again for at least 12 months after submission. Feedback will be given on all applications, and all decisions made by all panel members are final.

Proposals invited for resubmission may do so to the next call provided all concerns are addressed. Please note that resubmission requires an entirely new submission to TFS and will be given a new reference number. It is NOT connected to the previous application.
The panel will not have access to the original application during assessment.

SUCCESSFUL APPLICATIONS
Grants are awarded under the terms and conditions of UKRI. Please see UKRI privacy note for more details

RESEARCHFISH
All award holders are required to submit any outputs from their project on the Researchfish platform. Award holders are required to provide information about outputs arising from their work annually during the award period, and for at least 5 years after the award has terminated.

CONTACTS

We encourage potential applicants to contact the office to discuss their proposal, and the STFC office will be able to help and provide advice on applications where appropriate. Please contact the Senior Programme Manager Wendy Carr (wendy.carr@stfc.ac.uk) with any queries.

USEFUL LINKS

Below is a list of links which applicants may find useful when applying for STFC grants:

UKRI Principles of Assessment and Decision Making
Equality of opportunity
Unconscious Bias
UKRI Terms and Conditions
Guidance for Applicants
Researchfish

ANNEX 1: CERN, ESO OR ESRF SCIENTISTS AND ENGINEERS

Any applications made by applicants working at international facilities should note that the project outputs must benefit the UK economy.

Applicants from CERN, ESO or ESRF are welcome, and should be from 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, ESO or ESRF should provide a cover letter along with their proposal stating confirmation that they meet the eligibility criteria as set down above. Furthermore, the applicant's contract of employment with must cover for at least length of the grant. The Principal Investigator need not be a UK citizen.

Completed research proposals must be approved by the appropriate Head of Department or equivalent at the host organisation. Applications from CERN should be submitted through the Director of Technology Transfer and Scientific Computing. Applications from ESO through the Head of Administration.

Please note:
- The collaborating organisation must have its research or manufacturing base in the UK.
- Funds requested should be given in pounds sterling only
- Estates and indirect costs will not be applicable to grants awarded to CERN, ESO or ESRF. The estates and indirect costs addition are covered in the STFC subscription payment to CERN, ESO or ESRF, and so (if the grant is awarded), STFC will pay 80% of the full excluding estates and indirect costs.

Successful awards to CERN, ESO, and ESRF will be subject to the standard terms and conditions of STFC awards, although additional grant conditions might be required on individual grants.

ANNEX 2: SOFTWARE DEVELOPMENT PLAN GUIDELINES

Over the last 5-10 years, the software industry has reached the conclusion that the central problem regarding software quality and major software project failures is one of inadequate management. This annex provides some guidelines to the applicant in terms of planning (including cost and timescale estimation), management of the project, and the quality of the software deliverables. If a proposal is asking for public funding to develop a system, then a reasonable expectation of the application is to provide enough visibility to be assured that:

- The stated goal is to produce software that will be deployed and maintained as a semi-commercial product.
- There is an understood set of project objectives, sufficient to determine a reliable project cost.
- There is an understood development process with identified points for management review, using a methodology that provides some level of control and design evolution.
- There is an understanding of the project cost and its profile throughout the project.

A minimum requirement for any software development project should be:

- Identify a lifecycle model that will be used as a basis for the management of the project.
- Identify the top-level requirements of the project.
- Identify the deliverables of the project.
- Identify the key lifecycle milestones of the project and their products (including documentation. and the availability of any prototypes) and understood success criteria.

The proposal need not necessarily identify all the above but should provide enough detail and justification to present a convincing case that the development process is understood. Included in the proposal, a software development plan is required for all software related projects. The detail and size of the plan should reflect its relevance in the project. Where software development is a minor part of the project, the plan need not be extensive. However, if it is critical to the success of the project and/or takes up a significant portion of the project time, then the detail should reflect this fact. The plan should be included within the six-page case for support (and not submitted as a separate document), addressing the project management requirements including the key milestones. The milestones should have nominal dates assigned to them.

In addition to the development plan, there should be evidence of a cost estimation process and allocation of sufficient resources (including staff). If there is not enough visibility to this cost estimation, then it will be assumed that it has not been done adequately and that the project is at risk of not reaching its objectives.

Risks
This should relate to the relative priorities of the project deliverables/functionality - if there are specific areas of high technical/project risk (to be identified), how are these to be managed?
If the project needs to be de-scoped to complete on schedule or within cost, what measures will be taken?

The measures that will be taken to minimise cost/risk should be stated: e.g. use of COTS equipment or commercial software, software design tools, software development tools, change management tools, configuration management tools, requirements tracking tools, defect tracking tools.

Project Governance / Oversight

The governance and oversight arrangements should be stated if the project PI is not suitably qualified to oversee software development. Otherwise it will be assumed that the PI is responsible for this section of work.

Development approach Methodology

There should be an understood development process with identified points for management review, using a methodology that provides some level of control and design evolution.
Examples of types of methodology include the "Waterfall" lifecycle model, a rapid prototyping / iterative or incremental delivery methodology.

Requirement analysis

The user needs should be clearly stated in the Case for Support and should encompass both functional requirements and non-functional requirements such as usability, resilience, performance, and supportability.

The relative priorities of the project deliverables/functionality should be stated.

Design

The appropriate design activities should be stated, which may include conceptual, architectural, preliminary, or detailed design.

Testing approach/Quality Overview

The end product should be robust, practical, and meet the needs of the users. Explain what measures will be taken to assure software quality: ideally a software development/quality plan.
Again, such a plan does not have to be a large part of the Case for Support, but it does need to address how the project will assure that it will meet its design objectives, as represented by the requirements.
The testing activities may include coding testing, unit module testing, subsystem testing, software/hardware testing, system integration testing and user acceptance testing.

Implementation/Deployment

The implementation activities, and any post-implementation and maintenance activities should be stated.
Explain what software documentation should be produced – systems and user documentation.