

Announcement of Opportunity

National Space Technology Programme (NSTP)

Fast Track Projects

Date 30/07/2018

The UK Space Agency invites proposals for space technology research and development projects to the National Space Technology Programme (NSTP) – Fast Track projects.

1. INTRODUCTION

This NSTP Call aims to develop the capability of the UK space sector. Project proposals are sought for space technology research and development projects in areas including: technology proof of concept; technology developments; establishing new industrial research collaborations; market studies; or studies into spin in or out of technologies for space. Industrial co-funding may be required for the selected projects in accordance with the EU State Aid Regulations.

2. FAST TRACK PROJECTS

Fast Track projects have a maximum grant value of £200,000 and will be of maximum 12 months duration. The projects should be highly innovative and have strong enabling potential for future space activities. Projects developing technologies or instrumentation for commercial applications are also encouraged. Preference will be given to proposals of the highest technical quality that accelerate the development of scientific or commercial technologies for space (typically TRL 3-5).

Proposals for projects which are from collaborative teams will be given preference and the UK Space Agency encourages combined industrial-academic teams (any organisation type can lead). Note that there are private venture concessions for collaborative activities (see Annex A, which also defines eligible collaborations). We will also consider collaborative proposals that form part of a larger activity funded by one or more other organisations; provided that the proposed work falls fully within NSTP. The UK Space Agency encourages those organisations new to space technology to participate in this Call.

Projects will be considered which introduce or develop technologies that offer 'disruptive' or enabling potential to existing concepts, e.g. to improve performance, and/or improve system parameters such as cost, mass and resource requirements. Such technology-led projects must show a credible benefit to future commercial, operational or scientific mission objectives. Proposals that include elements of technology demonstration would be welcome.

Acceptable activities are:

- Fundamental research
- Feasibility studies
- Experimental development
- Industrial research

In all cases it is essential that the project proposal shows how the grant will make a difference to UK space technology capability, in addition to its value to the bidder.

Out of scope activities include funding of CASE students, training courses and outreach.

Applicants should contact the UK Space Agency if they are unsure if an activity is likely to be within scope of the Call.

This Call is open to UK Higher Education Institutions, other research organisations (including not for profit organisations), SMEs and industry. Industry-industry and industry-academia collaborations are encouraged and there is no restriction on which type of organisation can lead.

3. GUIDELINES FOR PREPARING AN APPLICATION

3.1 Overview

- **Please read the following guidelines carefully to ensure that your application includes all the information required and in the required format.**

Applications for project funding shall take the form of a proposal in single-spaced typescript (minimum font size 11-point Arial, minimum 1.5 cm margins all round, including diagrams and tables) and must contain the following sections:

| Item/Section | Description | Format | Maximum Page Count |
|--|---------------------------------|---|---|
| Cover letter | See 3.2 below | Single-spaced typescript Arial 11pt | 2 |
| Application form | See 3.3 below and Template A | Template A must be completed and submitted | 3 |
| Project summary | See 3.4 below and Template B | Relevant section in Template B must be completed and submitted | 500 words – plus additional diagram if required |
| Technical case | See 3.5 below and Template B | Relevant section in Template B must be completed and submitted | 8 – plus risk table |
| Exploitation route and benefits | See 3.6 and Template B | Relevant section in Template B must be completed and submitted | 2 |
| Company or organisation background | See 3.7 below and Template B | Relevant section in Template B must be completed and submitted | 2 |
| Eligibility information | See 3.8 below and Template B | Relevant section in Template B must be completed and submitted by new entrants only. | 1 - plus any appended information |

| Item/Section | Description | Format | Maximum Page Count |
|-----------------------|---|--|--------------------|
| CVs | See 3.9 below and Template B | Relevant section in Template B must be completed and submitted | 1 per person |
| Financial Information | See 3.10 below and MS Excel spread sheet template | Excel spread sheet must be used and submitted | n/a |

- Where a Template is specified, this must be used and submitted.
- Should any Section be omitted, the proposal will be rejected.
- Should any Section of the application overrun the specified page limit, only material up to the designated page limit that is in the correct format will be considered.

3.2 Cover Letter

To aid the placing of the grant agreement with successful bidders, the applications for funding must include a cover letter containing:

- A clear indication of the type of grant applied for i.e. Fast Track.
- The State Aid Category (see Annex A), or that the grant will be applied for under the *de minimis* rules.
- A committing offer to UK Space Agency.
- A firm fixed price for the work to be carried out.
- A statement of acceptance of the standard UK Space Agency Terms and Conditions (T&Cs). The T&Cs are contained in the Draft Grant document available as part of the Fast Track Call documentation. Note - any requested amendments to the grant document will be considered by the Agency but may not be accepted.
- **Industry bidders only:** The name of at least one customer contact in the UK who may be approached, with whom you have recently undertaken similar work. The bids will be assessed by the Review Panel (see Section 5), but the UK Space Agency reserves the right to seek a customer reference, to be considered by the Panel.

3.3 Application Form

The Application Form provides summarises key information concerning the project proposal submitted.

- Contact information for the project's lead organisation.
- Contact information for each of the project partners.
- NSTP Technology Roadmap Theme(s)
- GBER category (see Section 4.3 and Annex A)
- Grant funding requested

➤ **Information must be provided in Template A.**

3.4 Project Summary

The project summary must be brief and contain no confidential or sensitive Intellectual Property (IP) material. A single diagram or picture may be included on an additional page in support of the project summary.

The intention is that, should the project be funded, information from this summary may be used for publication on the UK Space Agency websites and/or used in press releases.

➤ **Information must be provided in the relevant section of Template B.**

3.5 Technical case

The technical case for the project must include:

- The project objective and success criteria.
- A description of the work to be undertaken, highlighting the innovative aspects of the project and the possible disruptive effects of the proposed work on the status quo.
- How the grant will make a difference to UK space technology capability, including the value to the bidder.
- For very new and unfamiliar concepts, you should also include references to any relevant - preferably peer-reviewed – publications.
- An outline project plan, including a work breakdown structure, a project schedule/Gantt chart, and clearly defined deliverables for each work package.
- Clear identification of the Project Manager(s) including the control mechanisms put in place to manage the project and how resources will be allocated and managed.
- The deliverables must be clearly identified as to their scope and delivery schedule, and where linked to payment milestones.
- The project plan must also include a summary risk analysis table, identifying any anticipated risks in managing the delivery of your proposed project. The impact and likelihood must be represented as High, Medium or Low as per the key in the template. Mitigation measures against each of the risks identified must also be included. A risk table is included in Template B.
- The start and end TRL of the proposed work, and possible exploitation routes.
- Information on collaboration between partner organisations and Intellectual Property Rights.
- A list of the individuals involved, and the resources required, identifying which institutions and individuals will be performing which functions and the respective resources requested.

➤ **Information must be provided in the relevant section of Template B.**

3.6 Exploitation route and benefits

This section is required for all proposals.

All bidders must include a description of potential exploitation routes for commercial and/or research and development projects. This may include aspects of commercial or pre-commercial activity; exploitation or dissemination of scientific results; societal or strategic

impacts; enhanced, extended or additional privately-funded research. For all projects, expected benefits must be clearly identified.

- **Commercial:**

For those projects of a commercial nature with product or service development, the proposal must include a Business Plan. The Business Plan must be of sufficient detail to enable a viability assessment by the reviewers, which clearly indicates any future development phases (cost/time), a description of the market and potential accessible market size resulting from this proposal, position in the value chain, route to market and a simple Return on Investment model showing the estimated time to break even and enter profit.

- **Scientific:**

For those projects targeting other mechanisms to exploit project outcomes e.g. scientific missions or research and development, this section must include how these will be identified, captured and maximised. Future development phases (cost/time) should be outlined in a roadmap with target missions and dates clearly identified.

➤ **Information must be provided in the relevant section of Template B.**

3.7 Company/Organisation background

This section must include a short description of the background to the company(ies) or organisation(s) to undertake the project and also include a summary of their track record(s).

➤ **Information must be provided in the relevant section of Template B.**

3.8 Eligibility information

This section to be completed by new entrants – i.e. those organisations who have never received a UK Space Agency grant

We welcome bids from a variety of organisations including academia, industry and (not for profit) government research institutes. The details of some organisations may not be known by the UK Space Agency, especially for newer entrants to the space technology sector. Such applicants must also provide brief and relevant company or organisation background information, including areas of expertise and company contact information including their registration and official address.

Following receipt of bids and before award of any contract, new entrants may be required to provide additional eligibility details:

- Evidence of company legitimacy and financial solvency supported by e.g. company Annual Reports.
- Details of company quality processes and accreditation.
- Track record supported by reputation or by statements from referees and customer testimonials.

For newly formed companies who do not have first year accounts then one of more of the following could be deemed as acceptable proof of eligibility:

- Reference from their bank – confirming capital solvency and appropriate management of finances etc.
- Industry/Trade reference from either customers or suppliers.
- Companies House Registration details.

➤ **Information must be provided in the relevant section of Template B.**

3.9 CVs

Please provide brief CVs of key project personnel from both the lead organisation, and all project partners (1 page per individual).

➤ **Information must be provided in the relevant section of Template B.**

3.10 Financial Information

Please include financial information as follows (and see also Section 4):

- The completed Finance Table.
- A justification of the resources requested, including travel plans and other expenditure.
- Equipment must be listed separately as per GBER regulations (see Q9 in the Q&A, Annex B).
- A clear statement of the Private Venture (PV) investment offered, and its relationship to the State Aid mandatory limits under GBER exclusions (see below and Annex A).

➤ **Information must be submitted using the MS Excel spread sheet Template**

4. FINANCIAL AND CONTRACTUAL INFORMATION

4.1 Grant award

All applications for project funding will also be judged on the basis of value for money.

The award will be made on a firm fixed price basis.

Award(s) will take the form of a grant agreement between the UK Space Agency and the project's lead organisation. Bidders should note that the UK Space Agency will not refund any costs associated with preparing proposals.

Bidders should note that grants cannot be given to companies or organisations in financial difficulties.

4.2 Payment Plans

Bidders must set out payment plans noting that:

- Project funding cannot be paid in advance of need and all payments will be made in arrears on successful completion of project milestones, and acceptance of progress and final reporting.
- Payment of the grant will be made in the form of staged payments on successful completion of intermediate deliverables, together with a final payment on successful completion of the project.
- The value of the first milestone payment is no greater than 25% of the grant total.

- Payment plans must be constructed so that no less than 20% of the grant total will be paid at the final review acceptance. Other milestone payments must be included and reflect major project stages and intermediate deliverables.

4.3 State Aid

Industry is required to either provide a PV contribution to eligible project costs in accordance with the guidance to the European State Aid General Block Exemption Regulations (GBER), or alternatively to claim exemption from having to make a contribution under the EU *de minimis* regulations.

For GBER, bidders must identify the category of work proposed, and this must be consistent with the work programme described in the technical case. Note that the type of activity and company size defines the maximum 'Intervention' rate (and hence the minimum required PV level) that is permitted for that activity (see Annex A), and that there are concessions for collaborative activities. Bidders will be expected to justify the category of work selected.

Bidders must ensure that they supply the correct information that allows the UK Space Agency to award grants within the scheme and it is the responsibility of the bidder to ensure compliance with the relevant State Aid legislation. Further guidance is available on the gov.uk website:

<https://www.gov.uk/government/publications/state-aid-general-block-exemption-regulation>

EC grants awarded on related projects or other public funding are not eligible as a PV contribution.

Academic partners and Government institutions will be funded in all cases at 80% of Full Economic Cost (FEC).

4.4 Treatment of VAT

NSTP grant funding is categorised as outside the scope of VAT. The supply of 'non-business' research is outside the scope of VAT which is defined by the intention of the parties at the beginning of a project – UK Space Agency as the funder does not receive anything in return for the consideration paid (grant) e.g. services or transfer of IP, therefore the grant is deemed as being outside the scope of VAT.

Note: Provision of regular project update reports does not count as a benefit received by UK Space Agency as these are used for monitoring purposes so that the Agency can ensure that the terms and conditions of the grant are being met.

5. ASSESSMENT OF APPLICATIONS

Applications for project funding will be assessed by a Selection Panel which will consist of independent reviewers drawn from academia, industry, Government or the Research Council Review Colleges. The panel will assess the proposals according to the criteria listed below, taking into account the commitment of the organisations involved, in particular the lead organisation, to the success of the project and the financial viability of the organisations involved.

Assessment criteria:

- **Relevance:** Applicability of the technology to space; degree to which this technology has the potential to be disruptive in the space field;
- **Technological Innovation:** Novelty, originality, newness to space and suitability of the work proposed, including assessment of risk and benefits;
- **Benefit:** Potential applications and the benefits it offers over alternatives technologies. Who and how will this technology benefit? How timely is this activity?
- **Quality of the proposal:** Capability and track record of the team, quality of staff, and value for money;
- **Strength of team(s)/collaboration.**

6. PROJECT MONITORING AND REPORTING

Following an award and completion of grant agreement formalities projects will be expected to start as soon as possible, and no later than 28th February 2019. The UK Space Agency will assign a project coordinator to each Fast Track project to oversee the projects with the following methodology:

- The project coordinator will initiate each project.
- The grant recipient will provide short progress reports to the coordinator, and the schedule for these will be agreed at the project kick-off meeting.
- The grant recipient will schedule a mid-term progress meeting with the coordinator.
- At the end of the project, a final report, IPR free, and executive summary are to be provided to the UK Space Agency. The executive summary must not contain any confidential information, as this may be uploaded onto the UK Space Agency website. All other reports should be marked commercial in confidence where applicable.
- The grant recipient will also schedule a final review meeting with the coordinator at the appropriate time.

There may be a project final presentation day in which each of the project teams will be invited to present a summary of their work and achievements.

7. CONFIDENTIALITY

The procedure for handling and assessing the applications for project funding will be as follows:

- Completed applications will be submitted to the UK Space Agency's NSTP Project Officer via email. The Project Officer will hold all bids in confidence.

- Once the Fast Track Call closing date has passed, electronic copies of all documents will be distributed to the independent assessment panel members; UK Space Agency confidentiality rules will apply.
- Information submitted for projects not recommended by the Panel for funding will be destroyed.
- Information submitted for those projects selected for funding will be retained by UK Space Agency but remain confidential.
- Summary information about the projects selected for funding may be published.

The UK Space Agency will monitor the funded project through project reports and the submission of project deliverables. The Agency requests that any confidential information is clearly marked *Commercial in Confidence*.

8. COLLABORATION AGREEMENT

Should an award be made, any contracted consortium will be required to establish a Collaboration Agreement between its members, prior to the commencement of the project. The Collaboration Agreement should establish agreements regarding how the results of the work, including IPR and spin-outs, will be exploited by the consortium members. A template version is available on the UK Space Agency website with the call documents.

9. SUBMISSION AND CONTACT INFORMATION

Only the lead company or organisation must submit an application. Applications for project funding must be submitted to the UK Space Agency as follows:

- Electronically in both pdf and in Word with the exception of the finance table which will be submitted in the Excel format specified in Section 3.
- Any information that bidders do not wish to be sent to the assessors (e.g. eligibility information) should be contained in a separate file, and clearly marked as such.

All Fast Track application documentation should be sent by email to the UK Space Agency National Space Technology Programme Project Officer, at nstp@ukspaceagency.gov.uk

Q&A can be found in Annex B and any further queries about this Call can be submitted to the above email address.

All applications must be submitted by 12 noon on 22nd October 2018

It is the lead organisation's responsibility to ensure that all required information is complete and submitted before the deadline

Incomplete and/or applications received after 1200 hrs on this date will not be considered

ANNEX A - STATE AID INTERVENTION LEVELS

Bidders must ensure their proposal is compliant with the relevant State Aid legislation. European regulations allows State Aid to companies for technology R&D activities via the General Block Exemption Regulations (GBER), with intervention rates (i.e. maximum % grant offered) depending on the type of activity, the type of organisation, and the size of the company as follows:

- **'fundamental research'** means experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any direct commercial application or use in view;
- **'industrial research'** means the planned research or critical investigation aimed at the acquisition of new knowledge and skills for developing new products, processes or services or for bringing about a significant improvement in existing products, processes or services. It comprises the creation of components parts of complex systems, and may include the construction of prototypes in a laboratory environment or in an environment with simulated interfaces to existing systems as well as of pilot lines, when necessary for the industrial research and notably for generic technology validation;
- **'experimental development'** means acquiring, combining, shaping and using existing scientific, technological, business and other relevant knowledge and skills with the aim of developing new or improved products, processes or services. This may also include, for example, activities aiming at the conceptual definition, planning and documentation of new products, processes or services;

Experimental development may comprise prototyping, demonstrating, piloting, testing and validation of new or improved products, processes or services in environments representative of real life operating conditions where the primary objective is to make further technical improvements on products, processes or services that are not substantially set. This may include the development of a commercially usable prototype or pilot which is necessarily the final commercial product, and which is too expensive to produce for it to be used only for demonstration and validation purposes.

Experimental development does not include routine or periodic changes made to existing products, production lines, manufacturing processes, services and other operations in progress, even if those changes may represent improvements;

- **'feasibility study'** means the evaluation and analysis of the potential of a project, which aims at supporting the process of decision-making by objectively and rationally uncovering its strengths and weaknesses, opportunities and threats, as well as identifying the resources required to carry it through and ultimately its prospects for success;

| Enterprise category | Headcount: Annual Work Unit (AWU) | Annual turnover | or | Annual balance sheet total |
|---------------------|--------------------------------------|--|----|--|
| Medium-sized | < 250 | ≤ €50 million (in 1996 € 40 million) | or | ≤ €43 million (in 1996 € 27 million) |
| Small | < 50 | ≤ €10 million (in 1996 € 7 million) | or | ≤ €10 million (in 1996 € 5 million) |
| Micro | < 10 | ≤ €2 million (previously not defined) | or | ≤ €2 million (previously not defined) |

Figure 1 - EC definition of the various company types

Anything above the limits for a medium sized company is designated as a large company.

Academic partners will be funded in all cases at 80% of Full Economic Cost (FEC).

The following table summarises the GBER categories and maximum allowable intervention rates.

Table 1 GBER Definitions of State Aid Categories

| State Aid Category | Intervention rate | | |
|--|-------------------|------|------|
| | SME | ME | LE |
| Fundamental Research | 100% | 100% | 100% |
| Feasibility study | 70% | 60% | 50% |
| Industrial research | 70% | 60% | 50% |
| Industrial research projects involving collaboration/ dissemination* | 80% | 75% | 65% |
| Experimental development | 45% | 35% | 25% |
| Experimental development projects involving collaboration/dissemination* | 60% | 50% | 40% |

*Collaborations between businesses and research organisations where the research organisation bears at least 10% of the costs and have the right to publish their own research, or business to business collaborations which involve more than one-member state of the EU/ EEA or involve at least one SME, provided that no one business partner carries more than 70% of the project costs. Procurement/supplier relationships do not qualify.

ANNEX B – Q&A

1. Can I resubmit a proposal that was rejected in a previous NSTP call?

Yes, you may re-submit your proposal which will then go through the independent evaluation process when being considered for funding. We recommend that any previous feedback is taken into consideration.

2. Do the PV funds have to be immediately available when applying for funding?

Yes, the PV funding must have been agreed and secured at the time of applying for the grant so that the project can commence as soon as the grant agreement has been completed.

3. Can the UK Space Agency provide advice about any type of collaboration/partnership programme that the Agency is promoting?

The Agency does not promote any particular collaboration although collaboration in essence is encouraged in projects.

4. Do you have any examples of successful projects in the previous rounds that you can share?

We cannot offer examples of successful proposal applications, but relevant information can be found in the Announcement of Opportunity guidance. We also offer successful news stories at our web page <https://www.gov.uk/guidance/apply-for-funding-through-the-national-space-technology-programme>

5. Can a non-UK based organisation receive funding?

The UK must lead the consortium. A non-UK based organisation cannot receive national funding as the primary focus of UK Space Agency is on the growth of the UK sector; therefore, any monies awarded cannot go outside the UK to a partner body. If the proposed non-UK capability is essential the work can be subcontracted out, however the proposal must demonstrate clearly that this resource is not available in the UK.

In such instances the subcontractor cannot be a partner to the project. However, if a non-UK entity wants to be a partner in the project that is acceptable. This can be facilitated by the non-UK entity organisation providing PV or capability as contribution-in-kind.

6. Should we explicitly state the overhead rate attached to salary costs, or would you prefer it to be amalgamated into a combined salary/overhead cost for each staff position?

The finance template includes notes on what information is required.

7. What are the NSTP rules on overheads (i.e. a standard rate or calculation provided by us)?

Your normal company accounting procedures should be used; see also the finance template.

8. Do labour costs relate only to staff on a PAYE payroll or would staff employed on short/long-term fixed contracts be eligible?

Costs should be applied for any staff that will be part of the project team/work regardless of employment status within the organisation. However, any costs for project work done by sub-contractors must be declared as a separate cost to the project. Sub-contractors cannot be partners to the project and justification in the proposal would need to be clearly stated as to the requirement for use of sub-contractors.

9. What are the eligible equipment costs – is it the depreciation on any capital expense?

That depends on what you plan to do with the equipment post project. Below are the GBER rules on eligible costs.

GBER rules:

Eligible costs

Aid for R&D projects:

- (a) Personnel costs: researchers, technicians and other supporting staff to the extent employed on the project.
- (b) Costs of instruments and equipment to the extent and for the period used for the project. If such instruments and equipment are not used for their full life for the project, only the depreciation costs corresponding to the life of the project, as calculated on the basis of good accounting practice, are considered as eligible.
- (c) Costs of buildings and land, to the extent and for the period used for the project. Regarding buildings, only the depreciation costs corresponding to the life of the project, as calculated on the basis of good accounting practice, are considered as eligible. For land, costs of commercial transfer or actually incurred capital costs are eligible.
- (d) Cost of contractual research, knowledge and patents bought or licensed from outside sources at arm's length conditions, as well as costs of consultancy and equivalent services used exclusively for the project.
- (e) Additional overheads incurred directly as a result of the project.
- (f) Other operating expenses, including costs of materials, supplies and similar products.

10. Are referees required to be within the UK?

Referees do not have to be UK specific but must be from recognised international organisations and/or from other known space institutions.

11. Does the organisational background information apply only to the lead organisation?

No. All proposals must include organisational background information for all those involved, therefore including those put forward in collaboration.

12. Is there a difference between a partner and a sub-contractor?

Yes. If you are collaborating with another organisation or company, then they are your project partner and will be included in your proposal as subject to PV contribution. If you wish to sub-contract some work, then that company cannot be considered as a project partner as payment to them will be made from the award and they will therefore be included in the costs of the project.

13. Would sub-contractors have any IP publication rights?

If you sub-contract work this may not affect the IP publication rights of your company, but this is for the lead organisation to confirm.

14. Does the maximum grant award offered include the PV contribution?

The maximum grant is the award value the UK Space Agency will give to a successful proposal. However, GBER rules apply to industrial organisations (e.g. SME/LE) and FEC to not-for-profit organisations/academia. Therefore, your equivalent PV contribution must match that criterion.

15. Is an independent audit required of the total cost of the project?

Confirmation is required that the Grant Recipient has expended the sums in respect of the period in which milestone payments have been claimed. For this purpose, a report must be completed and sent to the Grant Funder by 1st May 2019 and annually thereafter.