

UK Space Agency CREST Initiative

A. Scope

The main objective of CREST (Collaborative Research in Exploration Systems and Technology) is to position the UK community to secure the maximum scientific and technological return from participation in future planetary exploration projects and programmes. This may be from participation in the optional ESA exploration programmes but also includes potential bi-lateral partnerships, for example with NASA. Technologies can be developed through this programme that are relevant to the ESA mandatory science programme if the developments are generic and not for a specific mission (there are specific funding schemes for the mandatory science missions.)

The scheme applies to the pre-construction phase of projects and seeks to pave the way for more:

- UK intellectual leadership in key work packages in international projects;
- UK industrial return on construction phase contracts;
- knowledge transfer through collaborative developments, spin-outs, skills transfer and intellectual property licensing.

Although funds will primarily be provided for programme technology development, proposals should also show evidence of commitment to knowledge transfer. Plans for knowledge transfer will form part of the assessment criteria.

B. Eligibility

Applications may be made by any UK-based HEI, Research Organisation or industrial organisation (including research or training organisations and not-for-profit operations) that can demonstrate, through a competitive selection process, that it possesses the relevant technical capabilities and capacity to meet the scheme's objectives.

Applications may be made by individual organisations, or by collaborations between one or more partner organisations, either industrial or academic.

Normally, prospective applicants will be required to complete an outline proposal before submitting a full proposal. Non-academic applicants will also be required to submit a Pre-Qualification Questionnaire (PQQ). The UK Space Agency will assess them and advise prospective applicants whether they meet the minimum qualifying criteria for funding.

C. How to apply

Applications for funding should be made in response to specific announcements of opportunity. These will be published on the UK Space Agency website

Outline Proposal

One outline proposal should be submitted per proposal. This will be available with the AO and other related documents on the UK Space Agency website. This must be submitted by 16:00 on the date specified in the AO. The AO may draw attention to particular areas of interest. Electronic proposals are preferred but paper forms are accepted. Only under very exceptional circumstances, and at the discretion of the UK Space Agency, will late proposals be accepted.

If there is a non-academic partner, a Pre-Qualification Questionnaire (PQQ) should be submitted for each participating company. If a company is involved in more than one proposal only one PQQ is required but please indicate in section 0.2 and 0.3 all the proposals the PQQ relates to. If the company has submitted a PQQ in the last 12 months you need only fill in up to and including section 0.7 unless your company situation has changed significantly. Account information need not be submitted with the PQQ but the UK Space Agency may request the following in order to complete the assessment of eligibility:

- Audited accounts for the last three years.
- Company report.
- Quality assurance accreditation certificates or details of alternative quality system assessments.

For proposals including industrial applicants, the applicants are requested to explain how the proposal fits in to state aid rules. The UK Space Agency may discuss the categorisation with the applicants with a view to having an agreed position before a full proposal is submitted.

Full Proposals

The UK Space Agency will invite full proposals from the most promising proposals. The invitation will be sent to the lead applicant and will include application forms, guidance notes and potentially feedback on what the Agency would like to see in the full proposal.

For collaborative projects, funding will now not be routed through the lead partner; all partners will be funded separately, including academic institutions who will be funded on individual grants administered via the JeS system.

Proposals from industrial partners must be submitted on the Full Proposal Form.

Proposals from academic institutions should include a JeS form, which is to be submitted as a pdf file, via email (and not submitted through the JeS system). Instructions are below.

Please fill in a **JeS form** via <https://je-s.rcuk.ac.uk/> for a **STFC Standard Proposal** (note: not a fellowship or studentship) and **produce a .pdf of the completed form**. To do this, follow *document actions* --> *print document* --> select print format as '*pdf*' --> *download the print*.

Send this .pdf file, along with the relevant annexes as listed below, to charlotte.blakekerry@ukspaceagency.bis.gsi.gov.uk

Applications received after 16:00 on the specified date will not be considered.

It is only academic institutions who will need to do a .pdf format of a JeS form. Applications from industry will continue to use the full proposal form.

Please note: it is the responsibility of the proposal Principal Investigator to clear their submission with the relevant finance and research offices of their institution. Such clearance must be obtained prior to submission.

The application form(s) must be submitted by 16:00 on the specified date accompanied by a document, known as Case for Support, setting out the proposed programme of research, the benefits and justification of the resources requested. Although an application form will be required from each organisation seeking funds only one case for support is required.

Proposals for collaborative projects must include a collaboration agreement, including details of the management of confidentiality/disclosure and intellectual property agreements. Awards will not be made until a collaboration agreement is in place.

1. Costings

Funding will be awarded through an *Agreement* between the UK Space Agency and the supplier company or a grant to a research organisation. The proposal form should display the full economic costs of the proposed project together with the amount requested from the UK Space Agency. The contribution of the Agency will depend on State Aid rules – which could be less than 100% if, for example, the applicants plan to offer a discount or to contribute to the costs themselves.

Overheads

The full cost should include full overheads – covering costs that cannot be directly charged to specific projects– shown as *either*:

- part of a charge-out rate for staff time
or
- a separate cost item (to be called *Indirect Costs*). If staff *charge-out rates*, rather than *staff costs*, are used, zero should be entered under Indirect Costs.

On any one proposal form, overheads should be shown in one or other of these two ways, not as a mixture of both. If the second method is used, then, if the amount of staff effort funded in the agreement is less than that in the original proposal, the UK Space Agency would expect there to be a corresponding reduction in indirect costs.

Direct costs

Direct costs – costs that will be specific to the proposed project, will be charged as the cash values actually spent and can be supported by an audit record – should be split into the following subheadings:

- staff costs or staff charge-out rates (depending on how overheads are charged)
- travel and subsistence;
- equipment;
- other costs.

All costings should be at current prices in pounds sterling, inclusive of VAT and other taxes the host organisation anticipates having to pay for materials/services acquired.

The costings should make no allowance for inflation. If the proposal is successful, the UK Space Agency will include an allowance for inflation, based on standard government indices, in the ensuing Agreement.

2. State Aid

Applicants are asked in the outline proposal to explain where their proposal fits within the State Aid framework for R & D. This allows state aid for the following:

Fundamental research: defined as “experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any direct practical application or use in view”.

Industrial research: defined as “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” .

Experimental development: pre-competitive development category defined as “the acquiring, combining, shaping and using of existing scientific technological business and other relevant knowledge and skills for the purposes of producing plans and arrangements or designs for new, altered or improved products, processes or services”. This category extends to the development of commercially usable prototypes and pilot projects where they would be too expensive to produce only for experimental purposes; where there is subsequent commercial use of the prototype any revenue generated has to be deducted from eligible costs. This category does not cover routine or periodic changes to produces and services.

Technical feasibility studies preparatory to industrial research and experimental development.

Aid Intensities – Project Aid	Small enterprise	Medium enterprise	Large enterprise
Fundamental research	100%	100%	100%
Technical feasibility study preparatory to industrial research	75%	75%	65%

Industrial research	70%	60%	50%
Industrial research projects involving collaborations* or where the results will be disseminated	80%	75%	65%
Technical feasibility study leading to experimental development	50%	50%	40%
Experimental development	45%	35%	25%
Experimental development projects involving collaborations*	60%	50%	40%

* collaborations between businesses and research organisations, or business to business collaborations which are cross border or involve at least one SME, provided that no one business partner carries more than 70% of the project costs

3. Intellectual Property

The research undertaken will need to further the particular field of science for the good of the UK as a whole. There will therefore be no defined service provided to the UK Space Agency. One of the conditions attached to the funding will be to provide the UK Space Agency with a final report to show what has been achieved with the funds provided and how the results have been disseminated.

The UK Space Agency does not normally make a claim to the intellectual property arising from the research it supports and, unless there is insufficient assurance at the outset that it would be exploited for the greater good, the intellectual property arising from CREST projects will be vested initially in the supplier organisation(s) who may choose to retain these rights or assign them to a third party under an exploitation agreement.

4. Case for Support

The completed proposal form should be accompanied by a self-contained Case for Support which should be no longer than 6 sides of A4 in 11pt font, covering the following:

- The objectives of the project, its relevance to programme objectives and anticipated achievements and benefits;
- The underlying rationale and scientific/technological issues being addressed;
- The programme and plan of research, showing what alternatives have been considered and why the proposed method is preferred;
- The proposed management of both the project and resources;
- The relationship to any earlier or current work of the applicants and any collaborating organisations and any relevant work elsewhere;

- A fully justified case for the staff effort, equipment, travel and subsistence and other costs requested;
- An estimate of the annual profile of expenditure;
- Proposals for the wider dissemination of the results

Annexes

- The research experience of the investigators and any collaborators
- A "Pathways to Impact" document (of a maximum of two pages) this should describe how the potential impacts of this research will be realised.
- In the case of collaborative projects, a copy of the collaboration agreement, including details of the management of confidentiality/disclosure and of intellectual property arising from the research. **A collaboration agreement must be in place for the proposal to be funded.**

A proposal without a case for support will not be accepted.

The Case for Support should be no more than six sides in 11pt text (A4 paper, with minimum 2cm margins).

5. Assessment

Proposals will be assessed on the basis of their technical excellence and alignment with programme objectives by suitably qualified expert peer reviewers from academia, government and industry. Overseas peer reviewers may be used, as well as those based in the UK. Proposals may be assessed by both individual referees, who will provide a confidential report, and by peer review panels. They will be assessed against specific scheme selection criteria, which are likely to include:

- Scientific and technical excellence
- relevance to programme objectives
- novelty, timeliness, promise and feasibility
- management and planning
- cost effectiveness

Papers to referees and panel members are marked *In Confidence*, with the intention of ensuring that the contents of the proposal are not made more widely known than is necessary for proper assessment.

Referees and panel members are required to disclose conflicts of interest, personal or institutional, which relate to a proposal they have been asked to assess.

Applicants are invited, in the proposal form, to nominate one referee. If there are particular individuals you think should not be approached as referees, you should indicate this, with the reasons, in a covering letter.

Peer reviewers will make recommendations to UK Space Agency. The final decision on whether the proposed project will be funded rests with the Agency.

D. Data Protection Act 1998 / Freedom of Information Act 2000

The UK Space Agency will use information provided on the proposal form in processing the proposal and any agreements subsequently entered into, including payments, maintenance and review processes. This includes:

- Registration of proposals.
- Operation of UK Space Agency and STFC processing and management information systems.
- The acquisition of UK and possibly international referee comments on the proposal or preparation of material for use by peer review panels.
- Statistical analysis to inform the evaluation of the quality of the research undertaken and to study demographic trends.
- Policy and strategy studies.

To meet UK Space Agency's public accountability and information dissemination obligations, details of funded projects may also be made publicly available on the Agency's external website and other publicly available databases, and in reports and/or paper documents.

The following information contained in funded research proposals may routinely be made publicly available.

- Name of the host organisation
- Details of applicants (title, forenames, initials, surname, organisations and department)
- Name(s) of project partner organisations
- Project title
- Summaries of the proposal
- Value and duration of proposal (and any subsequent agreement)
- Details of peer review bodies involved in the awarding decision.

Applicants should ensure that, where necessary, the title, summary and objectives of the proposed research are worded in a way that protects commercially confidential or sensitive information. Applicants should obtain the necessary agreements from any collaborators with a commercial interest in the proposal for the inclusion of their material. Where information is "commercial-in-confidence", it should be clearly identified as such and submitted as a separate attachment to the proposal form and the Case for Support.