

Announcement of Opportunity for Space to Non-Space Technology Development

Closing date: 16:00 5th July 2017

The UK Space Agency is making funding available for Aurora Knowledge Transfer. The Agency promotes technology transfer from funded space missions that can benefit the UK economy. In support of this, participants of the dedicated programmes of technology development that deliver the overall activities of the UK exploration programme under Aurora are encouraged to transfer technology to commercial and non-space domains.

Proposals are invited to develop technology directly from the ESA Robotic Exploration programme into the wider community. The proposal is required to be of a scientific or technology nature providing a real impact to the UK economy. All UK based communities (academic, industrial and other) are invited to submit proposals and must define how technology developed under the Aurora programme is to be used. Applications can be made individually or in partnership with other organisations, however industry and academia will be funded under the rules stipulated in the scope of funding presented below.

Funding is available of up to £100k per proposal, to accelerate transfer or commercialisation of research developed under Aurora. The size of award will depend on the requirements of the proposed project and the applicants' case for support. **Funding will be awarded for this financial year and must be completed by 31 March 2018.** The deadline for submission of proposals is **16:00 5th July 2017.**

Scope of Funding

UK based organisations are invited to apply for small and medium grants to support knowledge transfer emerging from robotic exploration activities funded through relevant ESA or UK Space Agency programmes. The relevant programmes include for the Agency - CREST, NSTP, ExoMars Instrument Programme and the Insight Instrument Programme and for ESA - Aurora core programme; MREP and ExoMars. The proposals must demonstrate how Aurora funded technology is transferred to other academic disciplines or commercial applications benefiting the UK economy. Grants/awards will be assessed on a competitive basis for:

- Market analysis – Gaining knowledge of the market to assess new products (maximum £15k)
- Feasibility study – Short theoretically based investigative study
- Proof of concept – Laboratory demonstration of the idea
- Technical development – maturation of technology for a particular application

Funding may be used at all technology readiness levels (TRL) of development up to the pre-production level (TRL 6) and this must be defined appropriately in your proposal.

Each award 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. A copy of the grant agreement can be found at [https://www.gov.uk/government/latest?departments\[\]=uk-space-agency](https://www.gov.uk/government/latest?departments[]=uk-space-agency).

This UK Space Agency activity has been assessed by HMRC as outside the scope of VAT, because no taxable supply is taking place and the IPR will not in the normal course of events pass to UK Space Agency or from the UK Space Agency.

Proposers should note that grants cannot be given to companies in financial difficulties.

Proposals for technologies which are commercially focused or provide an economic impact are specifically encouraged.

Please note that proposals are invited from interested parties even if concepts are very early in development but have the potential economic impact described above. For commercial applications a route to market must be described within the proposal. In the case of transfer to other scientific areas the proposal must delineate the impact to this area and quantify its value.

Please note that **only the first 5 sides of the proposal will be read.**

Eligibility

- Exchange must have originated from the Aurora programme (industry and academia). The transfer of knowledge must be from the Aurora programme to non-space or commercial space sector and lead proposer must be UK based. This includes transfer of technology or skills to other scientific disciplines.
- Industrial applicants must be able to part fund the project development proposed (according to state aid rules).

Your Proposal Should Include

Main Case (maximum 5 sides of A4)

- Introduction abstract, composing of a 300 word description of the work to be undertaken and its economic impact to the UK.
- Technical details:
 - Proposed concept with details of how it fits the remit of this AO.
 - Outline development plan with an associated schedule.
- Management Details:
 - Clearly state the total cost, the funding sought from UK Space Agency and the contribution of each partner.
 - Clear demonstration of capability to carry out full aim of proposal, including a simple Gantt chart representation of tasks, durations and dependencies
 - Identified individuals, their experience and percentage time allocation to this project.
 - Risk assessment and mitigation approach (for management of project).
- Benefits and Justification of costs:
 - Justification of why your concept should be funded at the cost requested, including demonstration of the return to the UK economy or science benefits.
 - Proposers 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. Applicants will be expected to justify the category of work selected. Academic partners and Government institutions will be funded in all cases at 80% of Full Economic Cost (FEC).

- Potential route to market, identifying any other market opportunities.

Annexes

- 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. Note proposals without a signed collaborative agreement at the point of the review panel meeting could be disadvantaged. A model Technology collaborative agreement can be found [https://www.gov.uk/government/latest?departments\[\]=uk-space-agency](https://www.gov.uk/government/latest?departments[]=uk-space-agency).
- Proposed payment plan. Payment plans should be constructed so that no more than 25% is paid at Milestone 1, and no less than 20% at the final review acceptance. Other milestone payments should be included, which should reflect major project stages and intermediate deliverables. It should be noted that under the procurement rules for BIS/UKSA, milestone payments cannot be made in advance of need, and therefore will only be paid on successful completion of technical deliverables.
- Name, institution and contact details of all the partners. Funding and correspondence will normally be through the lead partner.

Evaluation Criteria

Proposals will be assessed on the basis of their excellence and alignment with the scheme objectives and will be assessed against specific scheme selection criteria, which are based on the following

Criteria	Description	Weight
Proposed Concept	Quality of idea and fit to AO.	30%
Schedule	A realistic and competitive development schedule	10%
Personnel	Experience and commitment of individuals involved	10%
Impact	Delivering high level of benefit to UK	30%
Continuity	Schedule of funding and route to commercialisation	20%

Proposals are considered in confidence, ensuring the content is not made more widely known than necessary for proper assessment. The final decision on whether the proposed project will be funded rests with the UK Space Agency.

Reviews and Reporting

Awardees may be subject to mid-term review for which appropriate documentation and presentations shall be required. A final report detailing the outcome is required at the end of the project.

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
- 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
- Summary of the proposal
- Value and duration of proposal (and any subsequent agreement)
- Details of peer review bodies involved in the awarding decision.

This information will not be published for unsuccessful applications.

To Apply

Email SpaceExploration@ukspaceagency.bis.gsi.gov.uk your proposal [max 5 A4 pages, size 11pt] by 16:00 5th July 2017 in PDF format. Please note that only the first 5 pages of the proposal will be reviewed.

UK Space Agency Contact Point

Rachel Luke
Robotic Exploration Programme Manager
UK Space Agency,
North Star Avenue,
Swindon SN2 1SZ
01793 418008
rachel.luke@ukspaceagency.bis.gsi.gov.uk

Annex A
Summary State Aid Rules

Applicants are asked in the outline proposal to explain where their proposal fits within the State Aid framework for R & D. The information below summarises the position at publication the latest information can be found at <https://www.gov.uk/government/publications/state-aid-general-block-exemption-regulation>

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

* collaborations between businesses and research organisations where the research organisation bears at least 10% of the costs & 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.