

# Horizontal Spaceport Development Fund - Announcement of Opportunity

## Introduction

1. HM Government is enabling access to space from the UK. In July 2018, we announced<sup>1</sup> support for the establishment of a vertical spaceport in Scotland. We are now inviting applications for funding to help prospective horizontal spaceports in the UK build their business cases for offering small satellite launch, and sub-orbital flight and ancillary services.

## Strategic Context

2. The Government's ambition is to grow the UK's share of the global market to 10% by 2030. To achieve this, industry will need to quickly seize the most significant growth opportunities in current and emerging markets.
3. As part of the **Industrial Strategy**<sup>2</sup>, the Government's Spaceflight Programme therefore aims to kick-start small satellite launch and sub-orbital flight from UK spaceports. Independent research suggests that achieving launch in the early 2020s is necessary to capture the growth potential offered by these emerging markets. We have already announced support for the establishment of a vertical spaceport in Sutherland, Scotland, and are providing advice and support for other prospective spaceports. As announced in 2018, this further funding opportunity will support the development of horizontal spaceports in the UK, further developing the market for both small satellite launch and sub-orbital flights.

## Invitation to submit grant proposals

4. We are inviting prospective UK horizontal spaceports to submit proposals for research and development into the opportunities offered by new and emerging horizontal spaceflight technologies. The research will examine both the technical and commercial feasibility of spaceport operations, and in particular should consider:
  - How UK aerodromes could adapt current infrastructure to host horizontal spaceflight services and/or technology-based services related to horizontal spaceflight; and,
  - How UK aerodromes could adopt successful business models to offer commercially sustainable spaceflight and/or technology-based services related to spaceflight.
5. This funding call encourages prospective UK horizontal spaceports to build their own business cases for offering horizontal launch services from the UK in the early 2020s and to therefore better position themselves to engage with potential suppliers and investors.
6. Proposals are therefore invited for studies into how a UK spaceport business, or businesses working together, could provide all or some of the horizontal launch and spaceflight services in support of UK launch. If a consortium wishes to apply, a single lead organisation must be named as the recipient of our grant funding.

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<sup>1</sup> <https://www.gov.uk/government/news/lockheed-martin-and-orbex-to-launch-uk-into-new-space-age>

<sup>2</sup> <https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future>

## Mandatory requirements

7. Proposals must include consideration of the UK operating environment and the expected benefits to the UK. This might include market reports, as well as plans to adapt existing capabilities or engage with aerodrome / airport / spaceport and launch vehicle organisations. Proposals should only consider the use or adaptation of commercially available capabilities – we will not consider proposals that rely on the use of military aerodromes or assets.
8. As part of the application for funding, applicants must review and accept the terms of the UK Space Agency's published grant agreement, Annex D. This will enable selected projects to start promptly after evaluation of proposals has been completed. Applicants wishing to request changes to the agreement are required to submit a marked-up document setting out the proposed variations, along with a justification for any amendment to the standard grant funding agreement terms.
9. To be considered for funding, applicants must demonstrate in their proposal how they will deliver their research outputs – see Point 10 – and how these outputs will help them draft a mature business plan detailing a horizontal spaceport's commercial and technical proposition, concept of operations and financing.

## Study outputs

10. The research outputs of the grant funding must, as a minimum, include:
  - **Services to be offered:** These may include services regulated under the Space Industry Act 2018 (launch to orbit or sub-orbital spaceflight) or other technology-based services related to horizontal spaceflight (such as component development and testing, spaceflight crew/participant training).
  - **Supplier and customer base:** This should include an assessment of relevant technology developers (such as those developing new launch vehicles) and a route to commercialise their products as part of the services offered at the applicant's proposed horizontal spaceport site.
  - **Competitiveness:** This should consider the applicant's likely business share relative to other proposed spaceports in the UK and globally.
  - **Costs, revenue and finance:** This should consider the initial and ongoing costs to the applicant in developing and operating the proposed spaceport, anticipated revenue from the services offered, available sources of finance and return on investment.
11. Each project selected for grant funding will also be required to provide interim project deliverables before the end of 2019.
12. Following completion of all projects, a briefing day may be held where the outputs of each project are presented to a cross-Government audience.

## **Non-Mandatory considerations**

13. The scope of the service offering is for applicants to decide and therefore a proposal could examine either:
  - a. how to offer generic horizontal launch services (how could businesses support any type of horizontal spaceflight or technology-based supporting services); or,
  - b. how to support a specific horizontal launch operation (how could a business support a specific horizontal vehicle launching from a specific location).
14. To enable multiple aspects of horizontal launch services to come together, collaboration between multiple partners may be required. This call for proposals therefore provides an opportunity for global businesses with experience of delivering relevant services in other nations to work with UK industry or academia to bring their expertise to the UK.

## **Funding**

15. It is anticipated that the total funding available for all proposals will be up to £2m with a maximum of £500k awarded per bidder. Following the evaluation process, only the highest scoring applications that sit within the Agency's overarching funding and affordability envelope will be funded. All projects must complete by 31 March 2020.
16. In addition to the grant funding requested, which is subject to the £500k ceiling specified above, applicants must also contribute their own finance or resources to maximise project outcomes. Applicants must provide a minimum of 25% of the total project cost from their own resources or funding. For the avoidance of doubt, a maximum of 75% of the total project cost can be grant funded, with the remaining project costs being funded by the grant recipients.
17. Grant payments will be made following successful completion of appropriate milestones. Milestone completion criteria will be agreed, linked to each milestone deliverable, with evidence required to demonstrate that each milestone has been completed successfully.
18. Organisations that do not submit proposals for grant funding, or are not selected to be funded, may still be supported non-financially by the UK Space Agency. This may include sharing information, helping to set up links with new customers and facilitating international engagement.
19. Submitting a proposal in response to this call for grant proposals, or having a proposal selected for funding, will not impact any party's ability to apply for any future funding opportunities and does not have any impact on any future applications for licences relating to launch from the UK.

## **Mandatory Eligibility and Scope**

20. After the deadline for final submissions, valid applications will be sent for assessment. Only applications that meet the following mandatory eligibility criteria and scope of the call will be sent for assessment:
  - A. Proposals submitted by or on behalf of a UK aerodrome that intend to offer horizontal spaceflight services by 2025;
  - B. Alignment with page counts and information requested in the Application Form – Annex B;

- C. Applicants provide a minimum of 25% of the total project cost from their own resources or funding;
  - D. Companies registered or incorporated in a country that is a member of the Missile Technology Control Regime;
  - E. Acceptance of the terms and conditions of the UK Space Agency's published grant agreement (see also Point 8);
  - F. Consideration of the UK operating environment and the expected benefits to the UK.
21. For all projects, whether the application is being submitted as part of a consortium, or an individual organisation, there must be a single lead organisation. Grant funding will only be awarded to one lead organisation. That organisation will be responsible for disseminating any funding to other parties and will be solely accountable to the UK Space Agency for the use of grant funds.
22. The UK Space Agency reserves the right to declare applications as out of scope.

### **Evaluation of proposals**

23. Applications that meet the mandatory eligibility criteria above will be assessed by an advisory panel.
24. Bids will be assessed against a range of criteria, with criteria weighted to reflect their relative importance to the final score. A copy of the scoring system and weighting is available in Annex E.
25. Assessors will provide feedback on each of the applications. All applications are assessed on individual merit. The UK Space Agency will make the final decision regarding funding, using the advisory panel's recommendations and wider relevant legal, policy and financial considerations.

### **Schedule**

26. This funding call is now open and closes at **12:00 (BST) on 17 July 2019**. The key dates for the applications and project delivery are:

Notification of Intention to Bid	12:00 (BST) 21 June 2019
Deadline for any questions	12:00 (BST) 28 June 2019
Deadline for submission of applications	12:00 (BST) 17 July 2019
Notification of results	July
Grant funding starts	August
Delivery of interim reports	Mid-December 2019
Project completion – delivery of final project deliverables	No later than 31 March 2020

27. The deadline for submitting Intention to Bid is 12:00 (BST) on 21 June 2019. Applicants must notify the UK Space Agency of their intention to bid, by sending an email detailing the parties involved in the bid to: [Spaceflight@UKSpaceAgency.gov.uk](mailto:Spaceflight@UKSpaceAgency.gov.uk) and include "Horizontal Spaceport Development Fund" in the subject header. The purpose of this is to enable the UK Space Agency to gauge the expected number of responses and potential workload of proposal reviewers.

28. Any questions relating to this funding call should be sent to: [Spaceflight@UKSpaceAgency.gov.uk](mailto:Spaceflight@UKSpaceAgency.gov.uk) and include “Horizontal Spaceport Development Fund” in the subject header. The deadline for submitting any questions relating to this Announcement of Opportunity is 12:00 (BST) on 28 June 2019. After this date, no further questions will be considered.
29. The deadline for submitting applications is 12:00 (BST) on 17 July 2019. All applications must be submitted to the following email before the deadline to be eligible for funding: [Spaceflight@UKSpaceAgency.gov.uk](mailto:Spaceflight@UKSpaceAgency.gov.uk) and include “Horizontal Spaceport Development Fund” in the subject header. Any applications or resubmitted documents received after this date will not be evaluated.
30. Applications will be reviewed shortly after the competition close date. Applicants will then be notified of the outcome of their proposal, with summary feedback provided to the unsuccessful applicants. Grant agreements with successful applicants are expected to be agreed shortly thereafter.
31. Following execution of agreed Grant Funding Agreements, successful proposals will be expected to commence in August 2019. The projects and parties selected for funding will be made public by the UK Space Agency at this time, along with the short abstract provided in the application form.
32. Milestones payments, made on completion of agreed and approved deliverables, can be requested following the execution of the grant agreements. All projects, milestones, reports and associated activities must be completed by 31 March 2020. Delivery of interim reports will also be required in December 2019.

### **Confidentiality**

33. The procedure for handling and assessing the bids and notifications will be as follows:
- a. Notifications of intention to bid and final proposals will be submitted to the Spaceflight Programme team, using the following email address [spaceflight@ukspaceagency.gov.uk](mailto:spaceflight@ukspaceagency.gov.uk)
  - b. All proposals and notifications will be held in confidence by the UK Space Agency and will be shared with proposal reviewers;
  - c. Information relating to the proposals may also be shared between the UK Spaceflight Programme delivery partners: the UK Space Agency, the Department for Transport and the Civil Aviation Authority; as well as the Ministry of Defence and the Offices of the Secretaries of State for Wales and Scotland;
  - d. Information relating to the proposals may also be shared with other UK government departments, agencies and arm's length bodies;
  - e. For those bids not recommended by the panel for funding, documentation will be retained by the UK Space Agency for reference. The proposals will not be visible to any others, and the names of any unsuccessful bidders will not be published;
  - f. Summary information on all successful proposals who receive grant funding will be made public, including a summary of the proposal and the identities of companies involved;

g. All other documentation relating to bids selected for funding will remain confidential within the UK government.

34. Information submitted as part of a proposal, or subsequent commercially sensitive information submitted as part of the grant agreement, will not be disclosed by us save for in so far as we consider necessary, in our absolute discretion, to comply with our legal obligations under the Freedom of Information Act 2000, Environmental Information Regulations 2004 or any other legal act, requirement or obligation. Where permitted by law, we will attempt to notify you in advance and take your view as to the appropriate scope of any such disclosure.

## **Other**

35. For the avoidance of doubt, the issue of this Announcement of Opportunity is not a commitment by the UK Space Agency to take forward or support any application. Any expenditure, work or effort undertaken prior to an offer of support and acceptance thereof is a matter solely for the commercial judgement of your company or organisation, and the Government will not be held liable for any costs incurred by participants in connection with the application process.
36. The UK Space Agency will monitor any funded projects through regular project reports and updates, with payments against milestones following formal reviews.
37. The UK Space Agency reserves the right in its absolute discretion to:
- a. waive or change the requirements of this Announcement of Opportunity from time to time through a formal amendment, initiated by the Agency;
  - b. seek clarification in respect of a participant's proposal;
  - c. disqualify any participant that does not submit a compliant proposal in accordance with the instructions in this Announcement of Opportunity.
  - d. disqualify any applicant that is guilty of misrepresentation in relation to its proposal or the proposal process;
  - e. withdraw this Announcement of Opportunity at any time, or to re-invite proposals on the same or any alternative basis;
  - f. disqualify applicants where support may conflict with the government's foreign policy and international commitments or may pose a threat to national security;
  - g. choose not to support any proposal as a result of this proposal process.

## **Annexes to this Announcement of Opportunity**

Annex A	Application Guidance and FAQs
Annex B	Application Form template
Annex C	Milestone Costs template
Annex D	Grant Funding Agreement
Annex E	Evaluation Criteria