

## Announcement of Opportunity

# CEOI 12<sup>th</sup> Call for Earth Observation Technology and Instrument Development Proposals

## 1 INTRODUCTION

On behalf of the UK Space Agency, the Centre for Earth Observation Instrumentation (CEOI) is pleased to announce its Twelfth EO Technology Call, with the primary aim to solicit new and innovative ideas for EO technology developments. As an additional aim, if sufficient funds are available, the call will fund proposals to advance more mature technologies through airborne demonstration. All proposals should be aligned with the objectives of the UKSA EO Technology Strategy.

The CEOI has the objective to realise an excellent, internationally competitive, national Earth observation instrument technology research and development programme. It achieves this by building UK academic and industrial capability in EO, and by funding the development of advanced EO instrumentation through a series of themed and open calls.

Brief details of previous CEOI funded projects may be found on the CEOI website ([ceoi.ac.uk](http://ceoi.ac.uk)).

The UK Space Agency funds the CEOI, which is a partnership led by Airbus Defence and Space Ltd with QinetiQ Ltd, University of Leicester and STFC Rutherford Appleton Laboratory.

### 1.1 Reference Documents

The following documents contain information that is relevant to this Call:

- [RD1] National Space Policy:  
<https://www.gov.uk/government/publications/national-space-policy>
- [RD2] National Space Technology Strategy:  
<https://connect.innovateuk.org/web/national-space-technology-strategy/overview>
- [RD3] EC Definition of Small and Medium Enterprises:  
<http://ec.europa.eu/growth/smes/>
- [RD4] BEIS Guidance - State aid: general block exemption regulation:  
<https://www.gov.uk/government/publications/state-aid-general-block-exemption-regulation>
- [RD5] UK EO Technology Strategy:  
<https://www.gov.uk/government/publications/uk-earth-observation-technology-strategy>
- [RD6] RCUK Guidance for Full Economic Costs (FEC) for academic Partners  
<http://www.rcuk.ac.uk/documents/documents/fecfaq-pdf/>
- [RD7] NERC Research Grants and Fellowships Handbook, Edition Nov 2018 - 2.0  
<https://nerc.ukri.org/funding/application/howtoapply/forms/grantshandbook/>
- [RD8] UK Space Agency document: Earth Observation and Climate: Vision to 2040  
<https://www.gov.uk/government/collections/earth-observation-eo> (to be published)

## 2 CEOI 12<sup>th</sup> EO Call Description

The total budget available for the Call will be more than £2.0M, with additional funding required from industrial bidders. The Call is released on 14<sup>th</sup> December 2018 with a closing date of 12<sup>th</sup> February 2019 at noon. Proposal selection will take place soon after, in anticipation of projects starting from March or April 2019.

The Call will accept proposals against these themes:

Theme	Funding and Duration	Eligible Activities
New and innovative ideas for EO technology development	Pathfinder grants of up to £75k, expected to be up to 9 months duration. Fast Track grants of up to £200k, expected to be up to 15 months duration;	Feasibility studies Industrial research Experimental development
Achieving higher TRL through HAPS or airborne demonstration	Flagship grants of up to £0.5M, normally expected to be up to 24 months duration	Industrial research Experimental development

The primary aim of this Call is to solicit new and innovative ideas for EO technology developments, aligned to the EO Technology Strategy. The selection criteria will be innovation and technological excellence, sound project and risk management, value for money and strategic importance, including how well the project will position UK organisations in the global market.

Successful proposals will identify the timeliness of the development and expect to generate a substantial return on investment. They will identify implementation opportunities through a CubeSat, in-orbit demonstration or other space mission, where targeted investment will significantly improve the likelihood of adoption of the technology by the mission(s). Preference will be given to proposals that demonstrate an urgent need for funding for an identified near-term space mission opportunity.

Proposals that raise TRL through deployment on HAPS or airborne demonstration are also acceptable under this Call. Bidders into the Airborne theme should propose activities which advance the development of EO instrument technologies to TRL 5 or 6. These activities may include further development of previous CEOI funded technologies. The Call will accept proposals for airborne demonstration projects requiring CEOI funding of up to £500K. Proposals requiring funding outside this range may be considered but strong justification will be required.

Proposals will need to be aligned to the EO Technology Strategy, which was issued by CEOI on behalf of the UK Space Agency on 4<sup>th</sup> December 2017 [RD5]. They should also be aligned with the UK Space Agency EO vision document: ‘Earth Observation and Climate: Vision to 2040’ [RD8].

All projects should complete by April 2021. Of particular importance in the evaluation of proposals will be the track record of the applicants to manage projects successfully and their plans to ensure that the project will complete in line with the proposed timescale.

The CEOI Call is open to industry, HEIs and other research organisations based in the UK. Additional funding will be required from industrial bidders as defined by the EU State Aid General Block Exemption Regulation. Eligible activities are limited to Feasibility Studies, Industrial Research and Experimental Development. Proposals for work categorised as Fundamental Research will not be considered. [RD4].

Proposals from collaborative teams will be given preference and the CEOI encourages combined industrial/academic teams (any organisation type can lead). We will also welcome bids from teams including new entrants to the space technology field. Annex D Table 1 and Note 1 define eligible collaborations and the increased intervention rates available for collaborative activities. We will only consider proposals for projects from single bidders, either academia or industry, if there is strong justification and funding is available.

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 CEOI programme objectives. The CEOI proposed activity must form a self-contained programme of work which minimises dependencies on other programmes, with risks identified and mitigating action proposed. Note that other government and/or institutional funded programmes cannot be used as the matching financial contribution to the CEOI project.

Projects which are conceived as part of a multi-stage development should outline the activities which may follow and a roadmap to flight. If a project is successful in this Call and achieves its objectives, the project team may subsequently be invited to provide a bid for additional activities if funding should become available.

The CEOI will only award grants to proposals judged to be of sufficient quality. The CEOI reserves the right to re-issue the Call in a revised form if all allocated funds are not utilised.

We welcome enquiries from potential bidders for clarification of any aspect of the Call.

## **2.1 CEOI 12th Call Themes**

The objectives for the two themes within this Call are summarised below:

### **New and innovative ideas for EO technology projects:**

This call theme will accept proposals for Fast Track and Pathfinder projects.

For Fast Track grants, preference will be given to high quality proposals that accelerate the development of innovative technologies for future scientific or commercial space missions. Proposals for Pathfinder Grants should be highly innovative and have strong enabling potential for future space activities.

Projects developing instrumentation for commercial applications are encouraged and the CEOI will welcome proposals that exploit the facilities and capabilities of the UK national space facilities. Projects which are conceived as the first stage in a multi-stage development should outline the activities which may follow.

Projects will be considered which introduce technologies which 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.

The CEOI anticipates funding approximately 8 Fast Track and 8 Pathfinder projects.

### **Achieving higher TRL through airborne demonstration**

This call theme will accept proposals for Flagship projects.

The priority for this theme will be to support proposals that advance the TRL of UK technology; bidders are encouraged to focus proposals on activities which advance the development of EO instrument technologies to TRL 5 or 6, which may include further development of previous

CEOI funded technologies, and taking these through to a demonstrator programme. Projects can propose airborne, balloon or High Altitude Platform (HAP) flight opportunities.

Proposals may include activities which improve the 'Science Readiness Level (SRL)' of instrument technologies, but all proposals must predominately demonstrate a significant technology advance.

The Call will seek proposals for projects requiring CEOI funding up to £500K, with a duration of up to 24 months. Preference will be given to proposals that demonstrate an urgent need for funding in order to access an identified near-term space mission opportunity.

### **3 NOTIFICATION OF INTENTION TO BID**

Applicants are required to notify CEOI of their intention to bid by email to the CEOI Call Administrator Lisa Finch, [lf107@leicester.ac.uk](mailto:lf107@leicester.ac.uk), using the pro-forma at Annex A, by **24<sup>th</sup> January 2019 at noon.**

The purpose of this is to gauge the size of the response and to inform the selection of reviewers. The notification and information therein will be held in confidence as described in Section 10.

### **4 NEW PARTNERSHIP OPPORTUNITIES**

CEOI encourages participation from organisations new to space technology development. A partner pro-forma is available on the CEOI website for any organisation that would like to be considered as a potential partner in a bid with another organisation.

In addition established space technology organisations looking for new partners may also use the CEOI in their search.

Such organisations should indicate what skills and/or capability they can offer or are seeking, and email the completed partner pro-forma, which is available on the CEOI website, to Mrs Lisa Finch, CEOI Technology Call Administrator at [lf107@leicester.ac.uk](mailto:lf107@leicester.ac.uk) by **17:00 hrs on 10<sup>th</sup> January 2019.**

The information will be shared on the CEOI webpage for leading organisations and potential project partners to access.

## 5 GUIDELINES FOR PREPARING AN APPLICATION

Applications should take the form of a proposal in single-spaced typescript, minimum font size 12 point Times New Roman, minimum 1.5 cm margins all round, including diagrams and tables.

All Proposal Sections defined in the table and/or described in this section of the AofO must be supplied in the proposal.

Section	Description	Maximum Page Count		
		Pathfinder	Fast Track	Airborne demonstration
Cover letter	See 5.1	2	2	2
Application Form	See Annex B	1	1	1
Project Summary, with picture or diagram	See 5.2	1	1	1
Technical proposal	See 5.3	4	8	10
Business/ Exploitation plan	See 5.4	1	2	3
Management Proposal	See 5.5	4	4	6
Financial Proposal	See 5.6	3	3	4
Excel Finance Table	Sec 5.7	Yes	Yes	Yes
Risk Table	Annex C	1	1	2
Company and organisation background	See 5.8	2 total	2 pages per organisation	2 pages per organisation
Eligibility information	See 9	1 page plus any appended information	1 page plus any appended information	1 page plus any appended information
Annex 1: CVs	CVs of <u>key</u> personnel	1 page each	1 page each	1 page each
Annex 2: Work Package Descriptions	-	1 page each	1 page each	1 page each
Annex 3: Letters of Support	See 5.9	1 page each	1 page each	1 page each

**Table 5-1 Application Checklist**

Proposals which do not include all of the mandated Sections may be rejected. Should any part of the application overrun the specified page limit, the Assessment Panel will only consider material up to the designated page limit, in the correct format. No additional annexes or appendices will be considered.

Bidders should note that the Agency, University of Leicester or CEOI will not refund any costs associated with preparing proposals responding to the CEOI Call.

## 5.1 The Covering Letter

To ensure ease and speed of placing the contract following selection, the bids must include a covering letter<sup>1</sup> containing:

- A committing offer to University of Leicester, who will contractually administer the CEOI grants on behalf of the Agency and CEOI;
- A statement of acceptance of the standard CEOI Terms and Conditions (T&Cs). A copy of these T&Cs is available on the CEOI website. Bidders should note that these T&Cs will not be open to negotiation and that in submitting this statement, you are accepting the T&C's on behalf of your organisation. Please ensure that authorisation is obtained from your organisation;
- Reference (Industry 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 7), but the CEOI reserves the right to seek a customer reference, to be considered by the Panel;
- The completed Application Form.

## 5.2 The Project Summary

The project summary should provide a brief overall description of the project in a form suitable for publication should the project be funded (i.e. free of any commercially sensitive or IP material).

It should include a short plain-language description of the project, its objectives and benefits to describe its purpose in a way that can be widely understood by non-experts. A relevant image, diagram or other graphic should be included if possible to enhance the description.

The project summary, plain-language description and graphic image may be included in a press release and published on the CEOI and the Agency websites when any award is made.

## 5.3 Technical Proposal

### **For New and Innovative Technology proposals (Pathfinder and Fast Track):**

- A description of the work to be undertaken, highlighting the innovative aspects of the project;
- An assessment of the likely disruptive effect of the proposed technology, including the likely effect on the scientific or commercial status quo.
- An exposition of the scientific or commercial drivers underlying the project, showing the relationship of the work to the relevant national space and EO strategies;
- The start and end TRL of the proposed work, and possible exploitation routes.
- For very new and potentially unfamiliar concepts, you should provide references to any relevant and preferably peer-reviewed publications.
- Information on collaboration between partner organisations and Intellectual Property Rights.

Note: For Pathfinder proposals, the first three items should be more briefly addressed to fit within the page count limit

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<sup>1</sup> Applicants should note that the University of Leicester will be administering the grant funding and hence the letter with the committing offer should be addressed to the University.

### **For Airborne Demonstrator Flagship proposals:**

- A description of the work to be undertaken, highlighting the innovative aspects of the project;
- An exposition of the science, commercial and/or operational need and drivers, showing the relationship of the work to the relevant national space and EO strategies;
- Justification for why this technology should be developed and flown as an airborne demonstration and the benefits it offers over alternative solutions;
- A description of how the proposed work takes advantage of UK strengths, and further positions the UK for increased involvement in space and future growth.
- A description of any system-level benefits expected (e.g. cost, mass, size, resource requirement)
- A technology roadmap showing heritage, future evolution and also the start and end TRL of the proposed work.
- Information on collaboration between partner organisations and exploitation of Intellectual Property Rights.

### **5.4 Business/Exploitation Plan**

All proposals must include a business and/or exploitation plan, although those for Pathfinder projects are likely to be much more concise.

An exploitation plan should identify potential space flight opportunities and the exploitation routes that are targeted, with justification for the timeliness of development and a summary of the subsequent stages of development. The future steps that will be taken to improve the probability of successful use of the results of the CEOI activities should also be provided.

In the case of projects targeting commercial opportunities, the proposal should include a brief business plan, which should include the following information:

- A description of the main exploitable products and/or deliverables from the project, including identification of the potential commercial breakthroughs (e.g. creation of new markets), and/or business innovations associated with the project;
- A description of potential and accessible market(s), with identification of key customers and competition;
- An exploitation roadmap detailing the potential space flight opportunity(s) , and the key commercial and marketing steps required to successfully exploit the project outcomes;
- The expected economic growth, job creation and export opportunities which will result from the project.

### **5.5 Management Proposal**

This section should provide:

- A project plan, including a summary of the work, a project schedule, and work break down structure. The plan should identify the measures which will be taken to ensure that the project completes on time;
- A one page Gantt chart summary, together with work package descriptions (WPDs - one page each) shall be attached in an Annex (not included in the page count limit for this section). The WPDs can use either the CEOI template or an equivalent template;
- Deliverables for each work package; clearly identifying their scope and the delivery schedule;

- The makeup of the team and justification if there are no partners;
- A clear identification of which institutions and individuals will be performing which functions, the lead organisation for each task and the resources required for each task;
- A list of the key individuals and their position in the project team;
- An assessment of the major project technical, schedule and commercial risks and the approach to managing, tracking and mitigation of these risks. All applicants are required to complete the Risk Table provided in Annex C.

If a project is successful, we would expect project teams to generate a full Project Management Plan (PMP) including a comprehensive Risk Management Plan at the project Kick-Off meeting. CEOI guidelines for the PMP are available on request from CEOI. We do not need the full PMP at proposal stage.

## **5.6 Financial Proposal**

This section should provide:

- A financial summary showing the cost of each work package and the major items of expenditure by each Partner<sup>2</sup> (staff, travel, external contracts, procurements etc) with justification;
- Table of proposed milestone payments with description, amount and dates;
- A clear statement of the GBER State Aid Category and of any industrial or other private investment offered (see 5.2 below and Annex D).

CEOI Grants arising from this call are intended to fund a specific programme of work and should not be used for the procurement of equipment, unless they can be shown to be necessary for a specific project. If you want further advice on large expenditures then please contact the CEOI.

## **5.7 Finance Table**

The CEOI Excel Finance Table must be completed, using one worksheet (sheets P1-P8 in the Excel spreadsheet) for each Partner. Any support/consultancy/service to be procured should be itemised in the 'Direct Costs' section of the relevant Partner sheet.

The template Excel spreadsheet is available on the CEOI website.

## **5.8 Company and organisation background**

For each of the project Partners, this section should provide brief background information about the company/organisation and the relevant track record.

## **5.9 Letters of Support**

Letters of Support should be included if appropriate (in an Annex), to show the interest of external organisations in the proposed development, either technical or commercial. Bidders should note that including letters of support is not mandatory.

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<sup>2</sup> 'Partners' are defined as entities/organisations which share and/or retain the Intellectual Property generated by the project. Industrial Partners will also contribute to the project costs in line with the GBER regulations. This is in contrast to 'Suppliers' and 'consultants', who supply goods and/or services to one of the Partners.



## **6 CONTRACTUAL INFORMATION**

Award(s) will take the form of a contract between University of Leicester and the project's lead organisation. The lead organisation will be expected to place contracts to flow down the Grant finance to its Partners, with terms and conditions similar to the main CEOI Grant contract.

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

All relevant costs, including any taxes on procurements, must be included within the total amount of the grant application. Note that a direct procurement for services from another organisation implies that they are not a Partner.

Bidders should note that Grants cannot be provided to the project lead or dispersed through the project lead to companies in financial difficulties.

### **6.1 Payment plan**

The payment plan should be constructed so that no more than 20% is paid at/soon after kick-off against one or more deliverables, 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.

### **6.2 Grants to Industry - Funding Contribution**

Industry in receipt of a CEOI Grant as Project Lead or as a Partner in the team is required to provide a contribution to eligible project costs in accordance with the European State Aid General Block Exemption Regulation (GBER) requirements. Note that EC grants or other funds from public sources are not eligible as a source of these contributions.

Bidders must identify and justify the GBER category type of the work proposed, and this must be consistent with the work programme. Note that the type of activity and company size defines the maximum 'Intervention' rate (and hence the minimum required contribution level) that is permitted for that activity (see Annex D). There are concessions for collaborative activities.

Bidders must ensure that they supply the correct information that allows CEOI 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 BEIS website [RD4].

### **6.3 Academic contribution**

Academic Partners will be funded at no more than 80% of Full Economic Cost (FEC). Refer to [RD6] for further information on FEC.

Grant applications for Academic partners should use the same method for calculating eligible costs as is used by the Natural Environment Research Council. This includes the rules regarding equipment purchases and sub-contractors. Bidders with Academic partners should ensure that their financial bid conforms to this approach. The reference document is the most recent published edition of the NERC Research Grants and Fellowships Handbook [RD7].

#### **6.4 Type of Award**

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

#### **6.5 Intellectual Property**

The IP generated during the course of the project will belong to the originators.

#### **6.6 Contractual Pre-conditions**

If the project is selected for grant offer, the following conditions must be met before the CEOI will initiate preparation of the contract:

- The company size and GBER category under EU State Aid rules are correctly defined.
- The source and amount of additional funding is fully defined.
- The financial viability of all members of the project consortium and funding sources are established through a due diligence process.
- The consortium is judged by the UK Space Agency to be eligible to receive a Grant from UK government under HM Treasury regulations and under EU State Aid rules.

## 7 ASSESSMENT OF PROPOSALS

The Review Panel will consist of independent Agency approved reviewers drawn from academia, industry, Government or the Research Council Review Colleges. It will assess the proposals against the criteria listed below, taking into account the commitment of the organisations, in particular the lead organisation, to the success of the project and the financial viability of all the project Partners.

Proposals will be assessed against the following criteria:

- **Overall strategic and business importance of the proposed project (30%)** *Why is the work necessary? Is this a strong and innovative business opportunity? What is the likelihood of a successful outcome?*
  - The need for this technology development, and the potential scientific or commercial impact,
  - Strength of the business opportunity and quality of the business plan (value chain, target customers)
  - Credible and substantial return on investment likely to result (size of the market and proposed commercialisation strategy)
  - Positioning of UK organisations in the global market and the likely contribution to exports, economic growth and ability to stimulate job creation.
  
- **Technology Excellence (30%)** *What are the advantages of this technology and why do it now?*
  - Technological excellence of the work, degree of innovation and likelihood that a step-change in technological capability will be achieved
  - Need for this technology development, its potential applications and the benefits it offers over alternatives technologies
  - Timeliness of the proposed work in relation to external factors.
  - Alignment of the work to the UK EO Technology Strategy [RD5]
  
- **Assessment of project planning and management arrangements (20%)** *What qualifies the team? Will they deliver the project successfully and to schedule?*
  - Quality, completeness and realistic timescales of the project plan, including management measures proposed to ensure on-time completion
  - Capability and track record of the team members - ability of the team to deliver the outcomes within the timelines proposed.
  - Quality of risk analysis, management and the mitigation proposed. (“Risk” is defined here as the probability that the project will meet its stated technology or business objectives).
  - To align with the CEOI objective to support collaborative teaming, one quarter of this mark is assigned for good quality collaborative teams (not applicable to Pathfinder projects).
  
- **Value for money of the proposed work including assessment of PV (20%)** *Does the project represent good value for money and does the PV offered conform to State Aid rules?*
  - Cost appropriate for the work proposed and represents a good investment for the Agency
  - Level and justification of PV commitment, and consistent with State Aid rules

## **8 PROJECT MONITORING AND REPORTING**

Following an award and completion of contractual formalities, the CEOI will assign to the project an experienced coordinator drawn from CEOI partner organisations. The coordinator will oversee the projects with the following methodology:

- The coordinator will initiate the project, by preference at a face-to-face meeting at the lead contractor's site. If a timely face-to-face meeting cannot be arranged, the kick off meeting can take place through a telephone conference;
- The lead contractor's project manager will report on progress to the coordinator using the CEOI report template at the end of every month by email. Any issues arising will normally be addressed by the coordinator by telephone or email;
- There will be a progress review every 3 months, by preference face-to-face, with one of these designated as the mid-term review, held at an appropriate site. Where feasible, the reviews should be synchronised to significant project events and/or delivery of some of the project objectives;
- There will be close attention to progress against the agreed project schedule to ensure timely completion and to the effective application of the risk mitigation process.
- At the end of the project, a Final Report and Executive Summary both suitable for publication will be produced. The Executive Summary should include a short plain-language description of the project, its objectives and benefits to describe its purpose in a way that can be widely understood by non-experts. There will be a formal project final review and there may also be a CEOI project final presentation day in which each of the projects will present a summary of work and achievements.

## **9 ELIGIBILITY**

We welcome bids from a variety of organisations including academia, industry and government research institutes based in the UK. The details of some organisations may not be known by the UK Space Agency or the CEOI, especially for newer entrants. Such applicants should provide brief and relevant background information for the organisation, including areas of expertise and contact information including registration and official address.

Only those organisations in the proposed team which have not previously received a grant from CEOI or the Agency need provide this information in their bid. Organisations that have previously received a grant should provide a title and date of a relevant previous award.

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

- It would normally be expected that 3 years of audited accounts are available for all project Partners. In the absence of 3 years of company accounts the bid response should provide details of the specific measures that will be taken to protect the UK Space Agency's grant investment;
- 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;

Micro SMEs and single-person (Sole Trader) companies will need to show robust risk mitigation against single point resource failure and the measures in place to protect the grant investment.

It is possible that some consortia bidding for projects may need to involve non-UK entities. This is allowable in principle subject to the following conditions:

- The UK must lead the consortium;
- The UK work must represent a substantial proportion of the whole project;
- The consortium must demonstrate that the proposed non-UK capability is essential and not available in the UK;

The rules can be relaxed if the non-UK entity is supplying PV, capability or resources on a no-exchange-of-funds basis. Full details of the non-UK participation must be provided in the bid, appended to the eligibility statement.

## **10 CONFIDENTIALITY**

The procedure for handling and assessing the bids and notifications will be as follows:

- Bids will be submitted to the University of Leicester administrator who will act on behalf of the CEOI. The administrator will hold all bids in confidence and will not propagate the bids internally in the University or elsewhere.
- Copies of the notifications of intention to bid sheets will be provided to the CEOI Director and to the CEOI Technology Programme Director, who will retain these as confidential information.
- When the bid period completes, electronic copies of the bid documents will be distributed to the independent assessment panel members, to the CEOI Director and to the CEOI Technology Programme Director. The UK Space Agency confidentiality rules will apply.
- Bids not recommended by the Panel will be destroyed. They will not be visible to the wider CEOI Leadership Team or to any others;
- Bids recommended by the Panel will be visible to the CEOI appointed project co-ordinator and to the CEOI Leadership Team;
- Bids selected for funding will remain confidential (i.e. will not be visible to staff of any of the CEOI Partners other than the project co-ordinator and the CEOI Leadership Team).

The CEOI Director, the CEOI Technology Director and the CEOI appointed project co-ordinator will monitor the funded project through regular project reports and reviews. A standard CEOI Non-Disclosure Agreement can be used to cover information exchange between the project participants and CEOI staff at any stage during the bid or contract. A copy is available on the CEOI website.

## **11 TEAMING AGREEMENT**

Should an award be made, the contracted consortium will be required to establish a Teaming Agreement (TA) between its Partners, prior to the commencement of work. The TA should establish agreements regarding how the results of the work, including IPR and spin-outs, will be exploited by the consortium members. A model agreement is available from the CEOI website.

## 12 SUBMISSION AND CONTACT INFORMATION

Only the lead institution should submit an application. Bids should be submitted to the University of Leicester administrator, who will act on behalf of the CEOI, as follows:

- Electronically in PDF format. **The bid should preferably be contained in single PDF file (apart from the separate Excel format Finance Table).**
- In submitting a proposal, bidders accept that all information supplied as part of the bid will be handled under the procedures defined in Section 10, irrespective of any confidentiality markings.
- In addition, a single printed and signed copy of the full bid should be posted on or before the closing date. Note: The date of the postmark or other proof of posting will be considered sufficient to prove that it is posted on time.

The electronic submission should be sent by email to the CEOI Technology Call Administrator, Mrs Lisa Finch at [lf107@leicester.ac.uk](mailto:lf107@leicester.ac.uk)

The printed copy of the proposal, including the financial information and a formal signed financial offer to University of Leicester should be sent to:

Mrs Lisa Finch  
CEOI Technology Call Administrator  
Leicester Innovation Hub  
University of Leicester  
128 Regent Road  
Leicester LE1 7PA

Telephone: +44 (0) 116 229 7681  
Fax: +44 (0) 116 223 1710  
Email: [lf107@leicester.ac.uk](mailto:lf107@leicester.ac.uk)

### **For further information and formal enquiries contact:**

Mr Chris Brownsword  
CEOI Technology Director  
QinetiQ Building, A8 Room 1004,  
Cody Technology Park,  
Ively Road, Farnborough  
GU14 0LX

Tel: 01252 393918 (land line)  
Mob: 07825 762527 (mobile)  
Email: [cbrownsword@QinetiQ.com](mailto:cbrownsword@QinetiQ.com)

### **For a timely response during the holiday period enquiries should be copied to:**

Prof Mick Johnson  
CEOI Director  
COB 205  
Airbus DS Ltd  
Gunnels Wood Road  
Stevenage SG1 2AS

Tel: 01438 774421  
Mob: 07766 536761  
Email: [mick.johnson@airbus.com](mailto:mick.johnson@airbus.com)

## Annex A – Intention to Bid Pro-Forma

Title of the project	
Lead organisation	
Short description of the project	
Estimated Grant request (ROM value)	
Project Type	Pathfinder/Fast Track/Airborne Demo ( <i>delete as applicable</i> )

This form should be emailed, before the date and time specified in Section 3, to Mrs Lisa Finch, CEOI Technology Call Administrator at [lf107@leicester.ac.uk](mailto:lf107@leicester.ac.uk)

## Annex B – Application Form

The completed Application Form should be included with the Cover Letter when the full bid is submitted.

Title of Project		
Lead Organisation and Grant Requested for Lead		£
Project Partners and Grant Requested for each Partner		£ £
Address of Lead Organisation including postcode		
Lead Contact – Commercial (Name and e-mail)		
Lead Contact – Technical (Name and e-mail)		
GBER State Aid Category (see Annex D)		
Total Grant Funding Requested (£)	£	
Academic Contribution (£ and % of Total Project Cost)	£	%
PV Contribution (£ and % of Total Project Cost)	£	%
Total Project Cost (£)	£	
Proposed start date and duration		
Project Type	Pathfinder/Fast Track/Airborne Demo ( <i>delete as applicable</i> )	



## Annex C – Risk Table Template

The Excel risk assessment template is available from the CEOI.

Risk Description	Type	Impact	Probability	Overall Rating	Month retired	Mitigation Strategy
Short description of risk and potential consequences	Technical, Commercial or Managerial	1-5	1-5	L/M/H		(1) Actions to be taken to avoid occurrence and/or minimise impact (2) Actions to be taken during project if risk arises

Impact and Probability 1 = Low; 5= High  
 Overall rating Impact x Probability  
 where 1<Low<6; 8<Medium<12; 15<High<25

## Annex D - State Aid intervention levels

Bidders should 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:

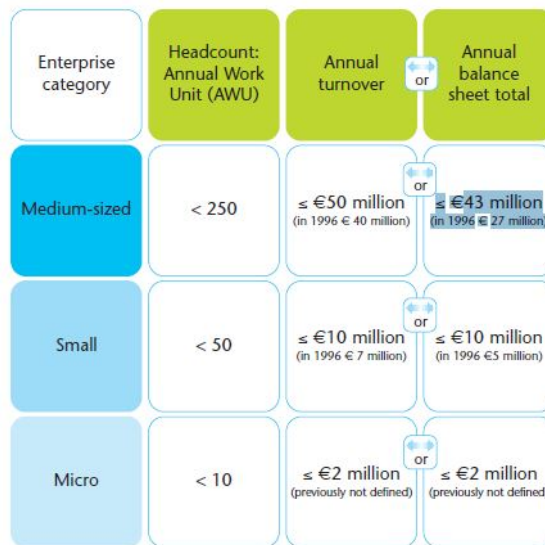
- **'fundamental research'** means experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any direct commercial application or use in view;
- **'industrial research'** means the planned research or critical 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;

Fig 1 EC definition of the various company types [RD3]:



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).

This table summarizes the GBER State Aid categories and maximum allowable intervention rates.

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 <sup>1</sup>	80%	75%	65%
Experimental development	45%	35%	25%
Experimental development projects involving collaboration/dissemination <sup>1</sup>	60%	50%	40%

Note 1 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. Procurement/supplier relationships do not qualify.