

Announcement of Opportunity

CEOI 13th 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 Thirteenth EO Technology Call. This 13th Call invites proposals for world-leading and high-impact CEOI Flagship projects to enhance national capability in EO technologies, with a particular focus on climate, environmental and societal applications. All proposals should be aligned with the objectives of the UKSA EO Technology Strategy [RD5].

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).

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
<https://www.ukri.org/files/legacy/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>
- [RD9] National Space Council:
<https://www.gov.uk/government/news/leading-the-new-space-age-government-backs-ambitious-plans-for-the-uk-in-space>

2 CEOI 13th EO Technology Call Description

The total budget available for the Call will be £2.0M, with additional funding required from industrial and academic bidders. The Call is released on 14 January 2020 with a closing date of 3rd March 2020 at noon. Proposal selection will take place in the following weeks, in anticipation of projects starting from mid-May 2020.

The Call will accept proposals against the following theme:

Theme	Funding and Duration	Eligible Activities
Development of technologies to enhance national EO capability, with a particular focus on climate, environmental and societal applications	Flagship grants of £0.5M to £1.0M, normally expected to be up to 24 months duration	Industrial research Experimental development

Successful proposals will be for world-leading and high-impact projects to enhance national capability in EO technologies, with a particular focus on climate, environmental and societal applications. Bidders should propose activities which advance the development of EO instrument technologies to between TRL 5 and TRL 9, which may include further development of previous CEOI-funded technologies. Proposals should be aligned with the objectives of the recently revised UKSA EO Technology Strategy [RD5].

Proposals should identify the timeliness of the development and the means by which they will generate a substantial return on investment and/or offer significant societal benefit. They should identify implementation opportunities through in-orbit demonstrator or other space missions, where targeted investment now will significantly improve the likelihood of future adoption of the technology by the missions. Proposals that raise TRL through deployment on CubeSats, HAPS or airborne demonstration are acceptable under this Call.

Proposals may include activities which improve the ‘Science Readiness Level (SRL)’ of instrument technologies, but all proposals must predominately focus on demonstrating a significant technology advance.

CEOI will provide grants for successful projects typically in the range £0.5M to £1M. Proposals requiring funding outside this range may be considered but strong justification will be required.

There is also a preference for projects that aim to complete within 24 months, although longer projects will be considered if there is strong justification. Preference will be given to proposals that demonstrate an urgent need for funding for an identified near-term space mission opportunity.

Projects preparing for operational EO missions for ESA and other agencies will be expected to construct their proposal to acknowledge the mission down-selection decision points, i.e. the proposed work should complete at these points, or be phased so that projects may be stopped if missions are deselected or cancelled.

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 State Aid General Block Exemption Regulation [RD4]. Eligible activities are limited to Industrial Research and Experimental Development. Proposals for work categorised as Feasibility Studies or Fundamental Research will not be considered.

Proposals from collaborative teams will be given preference and the CEOI encourages combined industrial/academic teams (any organisation type can lead). We welcome bids from teams including new entrants to the space technology field. The Table in Section 15 and its 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.

Proposals will be assessed by a Review Panel, which will consist of independent Agency approved reviewers drawn from academia, industry, Government or the Research Council Review Colleges. Processes are in place to avoid any Conflict of Interest. The output of the assessment process is a funding recommendation to the UK Space Agency.

The selection criteria are based on the excellence of the technical case; the exploitation plan and enhancement of national capability; the strength of the project team; demonstration of sound project & risk management; value for money and strength of the investment case; collaboration and conformance to grant requirements.

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.

3 BIDDERS' BRIEFING AND NEW PARTNERSHIP OPPORTUNITIES

Telephone Briefing for Potential Bidders

There will be a briefing by telephone conference from **10.00 to 12.00 on Thursday 23rd January 2020** to provide more information about the objectives of the call and provide an opportunity to ask general questions. Although attendance is optional, you are encouraged to join this meeting.

If you wish to participate in the Bidders Briefing please email a request to Miss Charlotte Moretti, CEOI Technology Call Administrator at cm738@leicester.ac.uk by 17:00 hrs on Tuesday 21st January 2020.

New Partnerships

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 Miss Charlotte Moretti, CEOI Technology Call Administrator at cm738@leicester.ac.uk by **17:00 hrs on Wednesday 29th January 2020**.

The information will be published on the CEOI 13th Call webpage for leading organisations and potential project partners to access.

4 NOTIFICATION OF INTENTION TO BID

Applicants are required to notify CEOI of their intention to bid by email to the CEOI Call Administrator Charlotte Moretti, cm738@leicester.ac.uk, using the pro-forma at Section 12, by **4th February 2020 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 9.

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, unless indicated otherwise.

Section	Further Information	Proposal Maximum Page Count and Annex	Marks
Cover letter	See 5.1	2 pages	Mandatory
Application Form	See 13	2 pages	Mandatory
Project Summary, with picture or diagram	See 5.2	1 page	Mandatory
Technical Case	See 5.3	10 pages	30%
Exploitation Plan and Enhancement of National Capability	See 5.4	4 pages	20%
Project Team	See 5.5	2 pages	10%
Organisational background and track record	See 5.5	2 pages per organisation Proposal Annex A1	
CVs	See 5.5	1 page each Proposal Annex A2	
Project Management	See 5.6	5 pages	20%
Gantt Chart (landscape or portrait)	See 5.6	2 pages Proposal Annex B1	
Risk Table	See 14	2 pages Proposal Annex B2	
Work Package Descriptions	CEOI template	1 page each Proposal Annex B3	
Project Finances	See 5.7	4 pages	10%
CEOI Cost Schedule	Use CEOI Excel template	Separate Excel file; Summary sheet plus 1 sheet per partner	
Collaboration	See 5.8	0.5 page	5%
Grant Conformance	See 5.9 and 8	0.5 page	5%
Eligibility - supporting information	See 8	2 page Proposal Annex C1	
Letters of Support	See 5.10	1 page each Proposal Annex D1	Optional

Table 5-1 Application Checklist

Proposals which do not include all of the Sections, unless explicitly indicated in **Table 5-1** as optional, 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 containing:

1. A firm fixed price for the work to be carried out and committing offer to University of Leicester, who contractually administer the grants on behalf of the Agency and CEOI;
2. A statement of acceptance of the standard CEOI Terms and Conditions (T&Cs), defined in the CEOI Grant Agreement document which 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 before submitting your bid;
3. 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 CEOI reserves the right to seek a customer reference for consideration by the Review Panel;
4. The completed Application Form.

The Main Proposal:

5.2 The Project Summary

The project summary should provide a brief overall description of the project in a form suitable for publication, if the project is 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 Case (30% of assessment mark)

This section should justify the need for this technology development and describe the work to be undertaken. It should also provide an assessment of technical feasibility and innovation in the project, and explain how the development fits into the wider technology development roadmap.

The section should include:

- An exposition of the science, commercial and/or operational need and drivers, including the relationship to relevant national space and EO strategies;
- A description of the technical work and the main activities to be undertaken;
- An assessment of the technical feasibility of the proposed work, identifying the technical risk and achievability vs. the novel and innovative aspects of the project.
- 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 Technology Readiness Level (TRL) of the proposed work;

5.4 Exploitation Plan and Enhancement of National Capability (20% of assessment mark)

This section should provide an exploitation plan detailing how the project will lead to an enhancement of national capability. It should identify all potential space flight opportunities and the key steps required, beyond the requested CEOI funding, to successfully exploit the project outcomes. It should describe how the project will result in enhancement(s) to national capability in EO technologies, with a particular focus on climate, environmental and societal applications.

The section should include:

- A description of the main exploitation opportunities targeted, together with an assessment of the potential and accessible market(s), and identification of key customers in the global marketplace;
- A description of the main exploitable products and/or outputs from the project, including identification of the potential scientific and/or commercial breakthroughs, and future steps that will be taken to improve the probability of successful use of the results of the CEOI activities;
- A description of how the proposed work takes advantage of UK strengths and/or unique capabilities, and where and how the enhanced development in national capability will occur;
- An assessment of the national and international competition, showing the benefits this technology offers over alternatives, and the timeliness of the proposed work in relation to external opportunities and gaining a competitive advantage;
- The potential scientific or commercial return and the overall expected impact on UK national economic growth, job creation and export opportunities.

For projects targeting future operational or scientific EO missions, such mission(s) should be clearly identified, the possible route to achieving flight should be described, together with how the benefits for any related opportunities will be achieved.

In the case of projects targeting commercial opportunities, the proposal should include a brief business plan.

5.5 Project Team (10% of assessment mark)

This section should describe the team which will be undertaking the work, highlighting the strengths of the project lead organisation and the capability which is offered by each Partner. Key individuals, their project roles and technical/management contributions should be identified.

The section should include:

- A description of the overall team structure, including justification for inclusion of each Partner organisation and justification if there are no partners;
- A brief summary description of each of the organisations involved with the project
- A list of the key individuals, their position, technical/management responsibility in the project team, effort required and confirmation of their availability for the required work;
- The track record of the applicants in managing similar projects successfully

For each of the Partners, background information about the company/organisation should be provided in Annex A1 of the proposal, including diversity and inclusion policies.

CVs of key staff should be provided in Annex A2 of the proposal.

5.6 Project management (20% of assessment mark)

This section should provide information about the approach to the management of the project, including planning, the actions that will be taken to maintain the schedule, and the assessment and control of risk. (“Risk” is defined here as the probability that the project will meet its stated technology and business objectives).

This section should include:

- A description of how the project will be managed and the management measures proposed to ensure on-time completion;
- A project plan, including a summary of the work, work break down structure and a project schedule;
- A table of outputs from each work package, clearly identifying their scope and the delivery schedule;
- 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;
- An assessment of the major project technical, schedule and commercial risks and the approach to managing, tracking and mitigation of these risks.

The following information should be included as Annexes to the proposal:

- Gantt chart as Annex B1, of the proposal showing the scheduling of main work packages, their inter-dependencies and major project events (progress review meetings, technology development milestones). No template is provided for this;
- Risk Table as Annex B2 of the proposal using the CEOI template provided in Section 14.
- Work package descriptions (WPD) as Annex B3 of the proposal (The WPDs should use the CEOI template or equivalent, with a one page limit on each WPD);

If a project is successful, we will 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.

5.7 Project Finances (10% of assessment mark)

This section will describe the project finances, summarising the cost of each work package, the major items of expenditure with justification and propose a milestone payment plan. It will allow an assessment of the value for money of the project and whether this is a good investment for the Agency.

This section should include:

- A financial summary showing the cost of each work package and the major items of expenditure by each Partner (staff, travel, external contracts, procurements etc);
- A description and justification of the resources requested, including travel plans and other expenditure.
- Any equipment proposed for purchase must be listed separately as per GBER regulations
- Table of proposed milestone payments with description, related project outputs and/or significant events, amount and dates. See Section 6.1 for further information;

All applications are required to provide a Cost Schedule as a separate Excel file using the CEOI supplied Excel template.

The CEOI Excel Finance Table must be completed, using one worksheet (sheets P1-P8 in the Excel spreadsheet) for each Partner¹. 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.

Note that 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 for equipment or other purposes then please contact the CEOI.

5.8 Collaboration (5% of assessment mark)

This section should describe the collaborative nature of the project, or justification if there are no Partners.

The response should include:

- Declaration of the team, listing the academic and industrial partners
- Justification if there are no partners
- Information on collaboration between partner organisations and exploitation of Intellectual Property Rights.

5.9 Grant conformance (5% of assessment mark)

This section should provide the information required to show that the project finances conform to State Aid Rules.

The section should include:

- A clear statement of the GBER State Aid Category (see Section 15).
- Level and justification of any industrial or other private investment offered
- A statement on eligibility of each partner to receive State Aid and the financial viability of all the project Partners. See Section 8 for further information.

Supporting eligibility information should be provided as Annex C1 to the proposal.

5.10 Letters of Support (Optional)

Letters of Support (maximum one page each) may be included if appropriate, to show the interest of external organisations in the proposed development and/or its impact. Bidders should note that including letters of support is not mandatory.

Any letters should be included in Annex D1 of the proposal.

¹ '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 will be constructed so that no more than 20% is paid at/soon after kick-off against one or more outputs, and no less than 20% at the final review acceptance. Other milestone payments will be included to reflect major project stages and intermediate outputs.

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 State Aid General Block Exemption Regulation (GBER) requirements. Note that grants or funds from public bodies 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 Section 15). 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 and Government institutions 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 and Government institutions 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 and Government institutions as 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. You will be required to put in place a Teaming Agreement with your Partners to cover ownership of IP and other matters.

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 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.

8 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.

9 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.

10 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.

11 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 9, 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, Miss Charlotte Moretti at cm738@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:

Miss Charlotte Moretti
CEOI Technology Call Administrator
Fielding Johnson Building (Room 201)
University of Leicester
University Road
Leicester LE1 7RH

Telephone: +44 (0) 116 229 7921
Email: cm738@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

12 Intention to Bid Pro-Forma

This form should be emailed, before the date and time specified in Section 3, to Miss Charlotte Moretti, CEOI Technology Call Administrator at cm738@leicester.ac.uk

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

13 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 – Contractual (Name and e-mail)		
Lead Contact – Technical (Name and e-mail)		
GBER State Aid Category (see Section 15)		
Total Grant Funding Requested (£ and % of Total Project Cost)	£	%
Academic Contribution (£ and % of Total Project Cost)	£	%
PV Contribution (£ and % of Total Project Cost)	£	%
Total Project Cost (£)	£	100%
Proposed start date and duration		
Project Type	Pathfinder/Fast Track/Flagship <i>(delete as applicable)</i>	
Titles and dates of related projects or proposals to CEOI, NSTP or other UKSA programmes	<i>(List on separate sheet if necessary)</i>	

14 Risk Table Template

Please use this table in your proposal.

Risk No.	Risk Description	Type	Impact	Probability	Overall Rating	Month retired	(1) Avoidance Strategy	(2) Mitigation Strategy
	Short description of risk and potential consequences	Technical, Commercial or Managerial	1-5	1-5	L/M/H	mm/yy	Actions to be taken to avoid occurrence and/or minimise impact	Actions to be taken during project if risk arises
R1								

Impact and Probability 1 = Low; 5= High

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

15 State Aid intervention levels

Bidders should ensure their proposal is compliant with the relevant State Aid legislation [RD4]. State Aid regulations allow funding of business research and innovation projects 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]:

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

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 ¹	80%	75%	65%
Experimental development	45%	35%	25%
Experimental development projects involving collaboration/dissemination ¹	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.