
**CEOI 14th Call
Bidders Briefing
9th December 2021**

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CEOI EO14 Bidders Conference – House Keeping

- Expected duration: 10:00 – 11:30 (with the possibility to go on until 12:00)
- Participants join the telecon via Microsoft Teams and can choose to remain anonymous
- No list of participants will be circulated
- Questions can be emailed at any time to Charlotte Moretti cm738@leicester.ac.uk who will ask them on your behalf
 - Please clearly indicate which proposal section/topic they are related to
 - Charlotte will ask them on your behalf either during or after the presentation
- CEOI will decide if any of the issues raised warrant the publication of a formal clarification notice, which will be issued on the CEOI 14th Call website
- The Announcement of Opportunity (AOO) and any clarification notices take precedence over anything stated during the bidders conference.
- **Please** read the AOO and other information contained on the Call website carefully; this Bidders Conference will not present all the information available.

Content of the presentation

- Summary of the Call
- Intention to bid
- Preparing your application
 - Covering letter
 - Application form
 - Assessment criteria
- Lessons learnt from the previous calls

CEOI 14th Call – Summary

- The Call is for EO Technology and Instrumentation Development Proposals directed at climate and environmental monitoring
- Proposals should be for one of two CEOI project types:
 - Fast-track (up to £250k, 9 months) – high quality proposals that accelerate the development of innovative technologies for future scientific or commercial space missions.
 - Pathfinder (up to £75k, 6 months) – highly innovative with strong enabling potential for future space activities.
- Proposals should be aligned with the objectives of the [UKSA EO Technology Strategy](#).
 - A new theme to the 14th Call is the recognition of the benefit of developing dual-use EO technology (civil & defence).
- The budget available for the Call will be in the order of £2,000K, with additional PV funds required from industrial bidders.
- [Details of the Call and all related documents are available here.](#)
- **Full proposals are due for submission by 17th January 2022 at noon.**
- The Call is open to industry, HEIs and other research organisations based in the UK.
- Collaborative proposals involving industrial and other partners of all types are strongly encouraged.
- **Challenging schedule:** Contract negotiation in March 2022, with a project completion by December 2022.

CEOI 14th Call – Summary Timeline



Deadline Date	Deadline Time	Application Stage
9 th December 2021	10am to 12pm	Bidders Briefing Conference
20 th December 2021	12pm	Intention to Bid form due
17 th January 2022	12pm	Full Proposal due
March / April 2022		Projects commence
31 st December 2022		Projects are complete

CEOI 14th Call – Intention to Bid

- Applicants are required to notify CEOI of their Intention to Bid (ItoB)
- Complete the pro-forma (see AOO Section 12) and email to the CEOI Call Administrator Charlotte Moretti, cm738@leicester.ac.uk, by 20th December 2021 **at noon**.
- The purpose of this is to allow CEOI to gauge the size of the response and to inform the selection of reviewers.
- The notification and information therein will be held in confidence (see AOO Section 9).
- Submitting an ItoB form does **not commit the organisation to submit** a bid
- CEOI appreciate the details in the ItoB form may change during bid evolution
- CEOI appreciate the designate Lead Organisation may change during bid evolution

Preparing Your Application

CEOI 14th Call – Preparing an Application

- Section 5 contains the [Guidelines For Preparing An Application](#)
- All Proposal Sections defined in the table and/or section 5 of the AofO must be supplied in the proposal, unless indicated otherwise.
- 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** (including CV) 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.

Section	Further Information	Proposal Maximum Page Count		Marks		
		Pathfinder	Fast Track			
Cover letter	See 5.1	2 pages		Mandatory		
Application Form	See 13	1 page		Mandatory		
Project Summary, with picture or diagram	See 5.2	1 page		Mandatory		
Technical Case	See 5.3	4 pages	8 pages	30%		
Exploitation Plan and Enhancement of National Capability	See 5.4	1 page	2 pages	20%		
Project Team (Proposal Annex A)	See 5.5	2 pages per organisation		10%		
<u>Annex A1</u> : Organisational background and track record						
<u>Annex A2</u> :CVs						
Project Management (Proposal Annex B)	See 5.6	1 page each		20%		
<u>Annex B1</u> : Gantt Chart (landscape or portrait)	See 5.6				1 page	2 pages
<u>Annex B2</u> : Risk Table	See 14				1 page	
<u>Annex B3</u> : Work Package Descriptions	CEOI template				1 page each	
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				
Eligibility - supporting information (Proposal Annex C1)	See 8	2 page				
Letters of Support (Proposal Annex D)	See 5.10	1 page each		Optional		

CEOI 14th Call – Covering Letter

Bids must include a covering letter containing:

- A firm fixed price for the work to be carried out;
- A committing offer to University of Leicester, who contractually administer the grants on behalf of the Agency and CEOI;
- 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&Cs on behalf of your organisation
 - Please ensure that authorisation is obtained from your organisation before submitting your bid.
- 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;
- The completed Application Form (see AOO Section 13).

CEOI 14th Call – Application form



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)		
Subsidy Control 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 <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>	

← CEOI contribution to total project cost; for collaborative proposals see requirements in AOO Section 15

} % have to comply with subsidy control rules (see AOO Section 15)
 ← Total FEC cost of the project = CEOI grant plus partner contributions

CEOI 14th Call – Assessment Criteria

Section	Subject	Mark
5.3	Technical Case	30%
5.4	Exploitation Plan and Enhancement of National Capability	20%
5.5	Project Team	10%
5.6	Project Management	20%
5.7	Project Finances	10%
5.8	Collaboration	5%
5.9 & 8	Grant Conformance	5%
	TOTAL	100%

CEOI 14th Call – Assessment Criteria

Technical Case



This section should:

- Justify the **need for this technology development** and describe the **work to be undertaken**.
- 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** (or dual-use technology);
- 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.

CEOI 14th Call – Assessment Criteria

Technical Case



- CEOI calls are aimed at the development of **upstream EO technologies**; Proposals that solely focus on downstream algorithm development, or the science to raise Science Readiness Level (SRL), are not appropriate.
 - However if you are developing for instance sensor inversion models, then that would be a suitable piece of work as long as it is supporting a broader hardware technology development programme as the main activity in the proposal.
 - Development of on-board processing is applicable, but must have a direct impact on the effectiveness of the EO instrument/sensor. In contrast, the development of downstream applications is something more appropriate to other UK Space Agency and UK Research and Innovation funding routes.

CEOI 14th Call – Assessment Criteria

Exploitation Plan and Enhancement of National Capability

This section should:

- Provide an **exploitation plan** detailing how the project will lead to an **enhancement of national capability**.
- Identify all potential **space flight opportunities** and the **key steps required**, beyond the requested CEOI funding, to successfully exploit the project outcomes.

The section should include:

- A description of the main exploitation opportunities targeted, together with an assessment of the potential and accessible market(s) (including civil and defence dual use), 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.

CEOI 14th Call – Assessment Criteria

Exploitation Plan and Enhancement of National Capability

“...with a particular focus on climate, environmental and societal applications”

- Proposals not aligned to these themes will be acceptable, but will be funded as a second priority ie if funding available, after all good quality fully aligned projects
- 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.

“.....technologies that have applications beyond climate monitoring and the environment (e.g. other civil applications, defence dual use) are also encouraged.”

- Technologies just focussed on other domains, e.g. defence, will not be funded under this Call.
- The proposal should clearly explain the relevance and benefit technologies offer to all application domains they are targeting.

CEOI 14th Call – Assessment Criteria

Project Team



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.
- Identify **key individuals**, their project roles and technical/management contributions.

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.

CEOI 14th Call – Assessment Criteria

Project Management

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**.

The 14th Call is targeting an ambitious schedule (completion by December 2022) and it is therefore particularly important that the proposed delivery schedule and risk management plan are realistic and robust.

The 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 breakdown structure (WBS) 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**. (e.g. Covid-related or supply chain delays)

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

- Annex B1 - Gantt chart of the project, 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.
- Annex B2 - Risk Table of the project, using the CEOI template provided in Section 14.
- Annex B3 - Work package descriptions (WPD). Use the CEOI template or equivalent, with a one page limit on each WPD.

CEOI 14th Call – Assessment Criteria

Project Finances



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**.

The 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 Subsidy Control 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 spreadsheet) for each Partner.
- Any support/consultancy/service to be procured should be itemised in the Direct Costs section of the relevant Partner's sheet
- The template Excel spreadsheet is available on the CEOI website.

CEOI 14th Call – Assessment Criteria

Project Finances



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.

Full Economic Costs

- Academic Partners and Government institutions will be funded at no more than 80% of Full Economic Cost (FEC).
- See AOO reference [RD5] for further information on FEC.

In-kind contributions – a good way to look at this is to ask yourself questions along the lines of:

- Has this a definable monetary value?
- Can I account for this contribution in a way an auditor would recognise?
- Can I show it was required to deliver the project?
- Is its contribution to the project commensurate with the value declared?
- Will it be provided during the project timescale
- For equipment purchases; residual value (or re-sale value) at the end of the project needs to be taken off the purchase price

CEOI 14th Call – Assessment Criteria

Allowable costs



- Equipment purchases
 - CEOI has an expectation that equipment purchased for instrument development would normally be funded at no more than 50%
 - However if your organisation has limited capability to fund the equipment procurement you could request a higher % funding, but this should be fully explained in your proposal
 - You should also note that this request would be referred to the UKSA, whose policy is to fund at no more than 80%
- Airborne trials
 - Flight trials arranged as an external service, procured through a commercial sub-contract, would be expected to be funded at the intervention rate of the partner procuring the service.

CEOI 14th Call – Assessment Criteria Collaboration



- This section should describe the collaborative nature of the project, or justification if there are no Partners.
 - Note: Pathfinder projects are more likely to not need collaboration
- 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.

“The CEOI Call is open to industry, HEIs and other research organisations based in the UK.”

CEOI 14th Call – Assessment Criteria

Collaboration

- For Fast-Track proposals, **preference will be given to those involving collaboration** between partners
 - Collaboration also attracts **beneficial intervention rates**.
- For this reason it is important to understand what collaboration entails:
 - ‘**Partners**’ are defined as entities/organisations which share and/or retain the Intellectual Property generated by them in the project.
 - In contrast, ‘Suppliers’ and ‘Consultants’ supply goods and/or services to one of the Partners.
- 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.

CEOI 14th Call – Assessment Criteria

Grant conformance



This section should provide the information required to show that the project finances conform to Subsidy Control rules.

The section should include:

- A clear statement of the **Subsidy category** (see AOO Section 15).
- Level and justification of any industrial or other private investment offered
- A statement on eligibility of each partner to receive the subsidy 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.

1) For the 14th Call, it is not possible to apply under the Small Amount of Financial Assistance (SAFA) allowance (formerly known as de-minimis).

2) For bids that may engage the Northern Ireland Protocol, EU State Aid regulations may take precedence.

Table 2. BEIS Subsidy Control categories and maximum allowable intervention rates

Subsidy Category	Allowable Level of Support		
	SE	ME	LE
Feasibility study	70%	60%	50%
Industrial research	70%	60%	50%
Industrial research projects involving collaboration/ dissemination*	80%	75%	65%
Experimental development	45%	35 %	25%
Experimental development projects involving collaboration/dissemination*	60%	50%	40%

Lessons Learnt from Previous CEOI Calls

Lessons Learned from Previous CEOI Projects



- **Technical problems**
 - Unforeseen technical difficulties - things harder than expected
 - Manufacturing delays / accidents / component failure
 - Under-estimation of initial technology maturity
 - Quality of out-sourced work poor and slow
- **Resources**
 - People: Internal reallocation post-award, resignation, slow recruitment processes
 - Facilities: Prioritisation, scheduling conflict, failures
 - Procurement: Took longer than expected, relying on a single specialist UK supplier (impacting time & cost)
- **Project management**
 - Poor control of scope / control of partners / no clear identification of project goals
 - Lack of cohesion of team
 - Poor leadership /poor decision making
 - Limited contingency in baseline plan
 - Contracting; Partner contracting delays, difficulty in flowing down Ts & Cs
- **External factors**
 - Loss of key people
 - Customer redirection: Changing project exploitation route requiring work/schedule re-planning
 - “Business” Prioritisation: Pressure within organisations to prioritise other work – perception that part-funded work is of lower priority than commercial/academic activities
 - Dependency on completion of other projects
 - Dependency on time-critical contributions from unfunded collaborators

Lessons Learned from Previous CEOI Projects



Ways to avoid

- **Better contingency / mitigation planning:**

- Being more pragmatic at bid stage on what is achievable in allocated time
- Better assessment of project delivery risks and possible mitigation action
- Inclusion of contingency in baseline delivery plan (timescales)
- Earlier procurement of long lead items
- Are academic leads thinking of these projects in more “commercial” terms

- **Tighter Project Management**

- Use of experienced PM’s – some academic teams successfully sub-contract PM role from outside
- Frequent team meeting drumbeat – weekly at critical times
- Avoidance of dual-hatted PMs – either technical delivery or management, not both (n/a to Pathfinder Projects)
- Preference for industrial lead on larger projects
- Evidenced through provision of Project Management Plans (for larger projects only)

Common Proposal Shortfalls

- Assumption of pre-knowledge on the background to the technology
 - Cannot assume that the reviewers are aware of previous projects
- Failure to show how **this development step fits into a larger story** and how it could end in a flight opportunity;
- Generic, **generalised risks**, without much thought to impact or mitigation
- Poor quality Gantt charts
 - A few blocks stuck end to end is not a good or informative Gantt chart.
 - Unreadable pictures of very complex Gantt charts
- Using non-grant receiving partners could be considered a delivery risk
 - Show support by letters of commitment
- You can submit or be a Partner in multiple proposals
 - But the assessors may question if you **have the resources** to deliver all
- Staff **resources** may appear unrealistic:
 - Reliance on a yet to be recruited person, and/or giving e.g. 80% of the hours to an unspecified RA
 - Unrealistic number of hours assigned to a senior technical specialist
- Simplistic business plan
 - e.g. global market is £4B; we will win 1%, hence this is a multi-million £ ROI
- Poor rework of a previously submitted proposal that does not meet the criteria
- Poor quality and/or no review of bid documents

Contact Points

- If you have any questions during the bid phase you are welcome to contact members of the CEOI team for clarification;
- These will be conducted in confidence;
- The Points of Contact are:
 - Chris Brownsword; cbrownsword@qinetiq.com
 - Nicolas Lévêque; nicolas.leveque@airbus.com
 - For contracts & administration, Charlotte Moretti cm738@leicester.ac.uk
- Note: the CEOI are not part of the proposal evaluation team.