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Tender PS25128: UKSAC25_0044 – Inter-Agency Space Debris Coordination Committee (IADC) 2025-26 Studies

UKSA

UK4: Tender notice - Procurement Act 2023 - <u>view information about notice types</u> Notice identifier: 2025/S 000-041294 Procurement identifier (OCID): ocds-h6vhtk-052741 (<u>view related notices</u>) Published 18 July 2025, 1:22pm

Scope

Reference

PS25125

Description

The final date and time for the submission of bids is Monday 11th August 2025 at 14:00hrs

DO NOT apply directly to the buyer.

All tender information MUST be submitted through the Jaggaer eSourcing Portal.

Brief Description of Requirement

The Office of the Chief Engineer (OCE) within the UK Space Agency is intending to procure delivery partners across different studies to feed into on-going research at the Inter-Agency

Space Debris Coordination Committee (IADC). The funding for the research associated with the IADC fits into a broader set of activities on Space Sustainability being led by UKSA and Department for Science, Innovation and Technology (DSIT) space directorate. The IADC consists of 13-member space agencies that perform technical research to inform key outputs which provide insights on how to mitigate the impact of space debris impact on the environment. The research performed by the IADC is split across four workings groups - measurements, environment and database protection and mitigation - and the research studies sought within this procurement will support on-going research across these working groups. The UK delegation to IADC is led by UKSA and is composed of cross-Government experts including representatives from the Civil Aviation Authority (CAA) spaceflight regulator alongside members of academia. The UK delegation does not directly have participation of industry to ensure that the research performed remains impartial. However, industry groups are not precluded from bidding for the work described in this specification the work though will be presented as UK delegation inputs. Outside of this procurement the UKSA is seeking to review the state of UK research into space debris by academic entities.

Within this procurement UKSA is seeking suppliers to perform technical studies of relevance to the four IADC working groups. We will require the supplier to fulfil the specification, including defining framework/model where needed and putting theoretical metrics into practice. This requirement is split into four lots, each related to a different technical area. Some lots contain multiple studies.

Please ensure you review all attached information to ensure a full understanding of this requirement. All attachments can be found with the Supplier Attachments tab within the Jaggaer eSourcing Portal.

This contract will be awarded based on the evaluation criteria as set out in the RFP document.

How to Apply

UK Shared Business Services Ltd (UKSBS) will be using the Jaggaer eSourcing Portal for this procurement.

To register on the Jaggaer eSourcing portal please use the link <u>https://beisgroup.ukp.app.jaggaer.com/</u> and follow the instructions to register as a supplier.

If you are already registered on the Jaggaer eSourcing Portal and wish to participate in this procurement, please use the link: <u>https://beisgroup.ukp.app.jaggaer.com/</u>.

Once you are logged into the system you will be able to locate the Procurement you wish to leave a bid on by clicking the ITTs Open to All Suppliers and searching for the reference number PS25128 and Jaggaer ITT reference number ITT_2212.

Total value (estimated)

- £500,000 excluding VAT
- £600,000 including VAT

Above the relevant threshold

Contract dates (estimated)

- 15 September 2025 to 31 March 2026
- 6 months, 16 days

Main procurement category

Services

CPV classifications

73000000 - Research and development services and related consultancy services

Contract locations

• UK - United Kingdom

Lot constraints

Description of how multiple lots may be awarded:

The total value of this contract across all four lots shall not exceed £600,000.00 (inclusive of VAT). UKSA intends to award four lots, with a minimum value of £25,000.00 (inclusive of VAT) per individual lot, with indicative minimum values per lot below (all-inclusive of VAT):

Lot 1: £25,000

Lot 2: £150,000

Lot 3: £75,000

Lot 4: £50,000

Subject to budget availability and receipt of sufficient high-quality proposals, UKSA may choose to award multiple contracts per lot (e.g. two contracts of £25,000.00 each within Lot 1) and the total contract value reflects this. Some lots contain multiple related studies and bidders are able to bid for one or more of these studies within each individual lots. Were a bidder to be successful across all lots, the total contract value would be £325,000.00 which represents the maximum which could be awarded to an individual bidder.

UKSA reserves the right to not award contracts within individual or multiple lots should insufficient quality proposals be received.

All contracts are offered on a six-month duration with a target commencement date of 15th September 2025 and prospective suppliers should note the deadline to complete the work shall not exceed 31st March 2026. Beyond this point, activity will not be funded.

Lot 1. Lot 1. Measurements

Description

This lot contains one study, though UKSA reserves the right to award multiple variants to multiple bidders in the event sufficient high quality bids are received:

Lot 1.1: Analysis of the data from EISCAT Beampark Campaign

Total Contract Value: Up to £25,000 (inclusive of VAT)

Total Contract Duration: 6 months

Characterisation of the Small Debris Space Environment remains an ongoing critical challenge for addressing space sustainability. NSpOC has previously funded a 24 hour beampark campaign using the EISCAT UHF radar system with the raw data analysed through an ESA contract. At the recent IADC, it was discussed that shorter follow up beamparks targeting specific fragmentation events would also be very beneficial. As a result of this, NSpOC has arranged for a further 24 hours of time but split up over 6 x 4 hr sessions targeting the recent CZ-6A fragmentation. The campaigns target 200-2000 km with a 75E pointing direction. We require a supplier to analyse the raw data to pull out detections and use the circular orbit assumption to extract an orbital inclination and altitude and make an assessment of object size based on the signal strength.

Lot value (estimated)

- £41,668 excluding VAT
- £50,000 including VAT

Same for all lots

CPV classifications, contract locations and contract dates are shown in the Scope section, because they are the same for all lots.

Lot 2. Lot 2. Environment and Database

Description

Lot 2: Working Group 2 : Environment and Database - The scope of Working Group is the characterisation and modelling of meteoroid and debris around the Earth and storage and access of the data by electronic means, including meteoroid and debris models, short and long-term evolution, collision prediction and risk assessment. This lot contains three separate studies, and bidders may bid for one or more of these studies within these lots, noting UKSA reserves the right to award multiple studies to multiple bidders where sufficient high quality proposals are received.

To support on-going research support is sought on the following:

1. Lot 2.1: Assess the utility of existing metrics and develop new metrics for space environment

Total Contract Value: Up to £50,000 (inclusive of VAT)

Total Contract Duration: 6 months

Review the formulation of existing proposals of metrics for the space environment to identify their strengths and weaknesses. Develop or continue the development of environment-level metrics that can be used to quantify the status of the orbital debris environment and define its sustainable use. Compare proposed metrics against other indicators and metrics of the space environment to understand their respective strengths and weaknesses and to establish their utility in understanding sustainable space activities.

2. Lot 2.2: Develop software and tools to assess the environment

Total Contract Value: Up to £50,000 (inclusive of VAT)

Total Contract Duration: 6 months

Develop key software components and tools to establish further UK capability to model the long-term evolution of the space environment. Apply software and tools to benchmark cases against other internationally developed models.

3. Lot 2.3: Timelines for End of Life (EOL) disposal

Total Contract Value: Up to £50,000 (inclusive of VAT)

Total Contract Duration: 6 months

Quantitative assessment of the impacts of reducing the lifetime of the spacecraft at End-of-

Life considering residence time in congested areas e.g. constellation shells, space stations. An assessment of risk and approaches to orbit design which may minimise risk and improve sustainability of the missions.

Lot value (estimated)

- £250,000 excluding VAT
- £300,000 including VAT

Same for all lots

CPV classifications, contract locations and contract dates are shown in the Scope section, because they are the same for all lots.

Lot 3. Lot 3. Protection

Description

Lot 3: Working Group 3 : Protection - The scope of Working Group comprises the design and technology of shielding against meteoroids and space debris and the associated test methods which include test facility and procedure, hypervelocity impact data, simulation software. This lot contains two studies and bidders are able to apply for one or more of these, noting UKSA reserves the right to award multiple contracts to multiple bidders where sufficient high quality proposals are received.

To support on-going research support is sought on the following:

1. Lot 3.1: Explore options for simple thresholds to quantify the vulnerability of spacecraft to impacts

Total Contract Value: Up to £25,000 (inclusive of VAT)

Total Contract Duration: 6 months

Within the national and international standards dealing with space debris mitigation the requirements are provided based on the size of space debris. The size of the associated space debris is linked to those which create a spacecraft failure in terms of probability of loss of functionality leading to the loss of collision avoidance manoeuvre capability and/or post mission disposal capability. Suppliers are sought to address this topic to support the development of impact vulnerability-based thresholds that can be used in the future as simplified metrics. The intention is to focus on design-dependent spacecraft vulnerability.

2. Lot 3.2: Define fragmentation event simulations for multiple simplified modern spacecraft designs (geometries, materials) and collision conditions (e.g. impactor properties, impact location, velocity, incidence angle) and characterise the fragments generated for different collision conditions

Total Contract Value: Up to £50,000 (inclusive of VAT)

Total Contract Duration: 6 months

Within the national and international standards dealing with space debris mitigation assumptions are made on the size or energy of space debris that is likely to create a catastrophic break-up and generate the related fragment distributions. In practice, the employed definition of "catastrophic" to justify the "critical" threshold of the space debris involved is often qualitative and limited by the availability of the state-of-the-art research. Suppliers are sought to characterise fragments released in hypervelocity impacts that can be used in future for deriving fragmentation severity.

Lot value (estimated)

- £125,000 excluding VAT
- £150,000 including VAT

Same for all lots

CPV classifications, contract locations and contract dates are shown in the Scope section,

because they are the same for all lots.

Lot 4. Lot 4. Mitigation

Description

Lot 4: Working Group 4 : Mitigation - The scope of Working Group comprises the study of all measures to reduce or avoid the creation of space debris or reduce the hazards created by space debris. This includes identification of space debris sources, design and operation of space systems to avoid or reduce the creation of space debris, guidelines for debris mitigation. This lot contains two studies and bidders are able to apply for one or more of these, noting UKSA reserves the right to issue multiple contracts to multiple bidders in the event sufficient high quality proposals are received.

To support on-going research support is sought on the following:

1. Lot 4.1: Lunar Debris Mitigation Guidelines - further work on disposal options

Total Contract Value: Up to £25,000 (inclusive of VAT)

Total Contract Duration: 6 months

The UK Space Agency is keen to support efforts to develop recommendations for the sustainable use of Cislunar space. This study will seek to identify key research gaps and further develop the work carried out in the previous studies to feed directly into the IADC WG and other international forums. The outputs of this study may also be used by the UK Space Agency and wider UK Government to inform new regulatory policy for future UK-licensed lunar missions.

2. Lot 4.2: Assessment of technologies driving post-mission disposal reliability

Total Contract Value: Up to £25,000 (inclusive of VAT)

Total Contract Duration: 6 months

Investigate the merits of higher post-mission disposal success rates, looking at reliability based on mass, collision probability, orbital location, propulsion reliability and other relevant parameters. Include analysis of constellations specifically to support recommendations that constellations have higher success rates.

Lot value (estimated)

- £83,332 excluding VAT
- £100,000 including VAT

Same for all lots

CPV classifications, contract locations and contract dates are shown in the Scope section, because they are the same for all lots.

Participation

Particular suitability

- Lot 1. Lot 1. Measurements
- Lot 2. Lot 2. Environment and Database
- Lot 3. Lot 3. Protection

Lot 4. Lot 4. Mitigation

- Small and medium-sized enterprises (SME)
- Voluntary, community and social enterprises (VCSE)

Submission

Enquiry deadline

25 July 2025, 2:00pm

Tender submission deadline

11 August 2025, 2:00pm

Submission address and any special instructions

DO NOT APPLY DIRECTLY TO BUYER

All submissions will be assessed in accordance with the Public Procurement Regulations that apply to this opportunity.

Responses must be received by the date and time in the tender documentation; responses received outside of the deadline or not sent via the Jaggaer eSourcing portal will not be accepted or considered by the Contracting Authority further for this opportunity, unless a system outage is experienced, to which the Contracting Authority will advise upon accordingly.

All enquiries with respect to access to the eSourcing Portal and problems with functionality within the portal must be submitted to eSourcing Portal Helpdesk, not the Contracting Authority contact for this procurement.

Phone 08000 698 632

Email customersupport@jaggaer.com

Please note; the eSourcing Portal is a free self-registration portal. Bidders can complete the online registration at the following link: <u>https://beisgroup.ukp.app.jaggaer.com/</u>

Bidders should read all attachments, messages and the response envelopes located within the eSourcing Portal carefully before completing the bid submission. Failure to comply with any of these instructions for completion and submission of the bid submission may result in the rejection and exclusion of the bid. Bidders are advised therefore to acquaint themselves fully with the extent and nature of the specification requirements and contractual obligations. These instructions constitute the Conditions of bidding. Participation in the process automatically signals that the Bidder accepts these Conditions as part of the bidding process.

All material issued in connection with this bidding process shall remain the property of the Contracting Authority and shall be used only for the purpose of this procurement. All Due Diligence Information shall be either returned to the Contracting Authority or securely destroyed by the Bidder (at the Contracting Authority's option) at the conclusion of the procurement.

Interested organisations should ensure that they allow a sufficiency of time, prior to the deadline to allow all sections to be completed in full and any attachments to be uploaded.

As a user of the Jaggaer eSourcing Portal you will have access to the Jaggaer messaging service which facilitates all messages sent to you and from you, as well as other messages and updates in relation to any specific tender event. Please note that any and all information secured outside of the messaging service, shall have no Legal Standing, merit or worth and should not be relied upon by any organisation submitting a tender response.

Please note it is your organisations responsibility to access these messages on a regular basis to ensure you have sight of all relevant information applicable to this opportunity.

The Contracting Authority expressly reserves the right:

i. not to award any contract as a result of the procurement process commenced by publication of this notice; and

ii. to make whatever changes it may see fit to the content and structure of the procurement; and under no circumstances as part of your organisations participation in this opportunity, will the Contracting Authority be liable for any costs incurred by any organisation as a result. If the Contracting Authority decides to enter into a contract with any successful organisation(s), this does not mean that there is any guarantee of subsequent contracts being awarded. Any expenditure, work or effort undertaken prior to contract award is accordingly a matter solely for the commercial judgement of your organisation in doing so.

About UK Shared Business Services

UK Shared Business Services Ltd (UKSBS) brings a commercial attitude to the public sector; helping our contracting authorities to improve efficiency, generate savings and modernise.

Where UKSBS is not named as the Contracting Authority within the documentation, UKSBS

will be acting as an agent on behalf of the Contracting Authority.

Our broad range of expert services is shared by our customers. This allows our customers the freedom to focus resources on core activities; innovating and transforming their own organisations.

For full details of our partner base please review the following link: https://www.uksbs.co.uk/clients/

Tenders may be submitted electronically

Yes

Languages that may be used for submission

English

Award decision date (estimated)

26 August 2025

Award criteria

Name	Туре	Weighting	
Technical	Quality	80%	
Commercial	Price	20%	

Other information

Applicable trade agreements

• Government Procurement Agreement (GPA)

Conflicts assessment prepared/revised

Yes

Procedure

Procedure type

Open procedure

Reduced tendering period

Yes

Qualifying planned procurement notice - minimum 10 days

Contracting authority

UKSA

• Public Procurement Organisation Number: PRTY-4245-MTJY

Harwell Campus, Rutherford Avenue

Didcot

OX11 0DF

United Kingdom

Email: commercial@ukspaceagency.gov.uk

Region: UKJ14 - Oxfordshire

Organisation type: Public authority - sub-central government

Other organisation

These organisations are carrying out the procurement, or part of it, on behalf of the contracting authorities.

UK Shared Business Services Ltd

Summary of their role in this procurement: Shared Service Provider

• Public Procurement Organisation Number: PMPN-7535-GNTG

Polaris House, North star Avenue

Swindon

SN21FF

United Kingdom

Email: Professionalservices@uksbs.co.uk

Region: UKK14 - Swindon

Contact organisation

Contact UK Shared Business Services Ltd for any enquiries.