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Tender

## **WP3.5.2 Novel Techniques and Technologies for Incorporating Sensor Data into Digital Twins**

United Kingdom Atomic Energy Authority

F02: Contract notice

Notice identifier: 2022/S 000-007432

Procurement identifier (OCID): ocds-h6vhtk-0323a2

Published 18 March 2022, 2:09pm

### **Section I: Contracting authority**

#### **I.1) Name and addresses**

United Kingdom Atomic Energy Authority

Culham Science Centre

Abingdon

OX14 3DB

#### **Contact**

Ben Osborne

#### **Email**

[ben.osborne@ukaea.uk](mailto:ben.osborne@ukaea.uk)

#### **Country**

United Kingdom

#### **NUTS code**

UKJ14 - Oxfordshire

**National registration number**

N/A

**Internet address(es)**

Main address

<http://www.gov.uk/government/organisations/uk-atomic-energy-authority>

Buyer's address

<https://uk.eu-supply.com/ctm/Company/CompanyInformation/Index/72814>

**I.3) Communication**

The procurement documents are available for unrestricted and full direct access, free of charge, at

[https://uk.eu-supply.com/app/rfq/rwlenrance\\_s.asp?PID=44929&B=UK](https://uk.eu-supply.com/app/rfq/rwlenrance_s.asp?PID=44929&B=UK)

Additional information can be obtained from the above-mentioned address

Tenders or requests to participate must be submitted electronically via

[https://uk.eu-supply.com/app/rfq/rwlenrance\\_s.asp?PID=44929&B=UK](https://uk.eu-supply.com/app/rfq/rwlenrance_s.asp?PID=44929&B=UK)

Tenders or requests to participate must be submitted to the above-mentioned address

**I.4) Type of the contracting authority**

Body governed by public law

**I.5) Main activity**

Other activity

Fusion Research

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## **Section II: Object**

### **II.1) Scope of the procurement**

#### **II.1.1) Title**

WP3.5.2 Novel Techniques and Technologies for Incorporating Sensor Data into Digital Twins

Reference number

T/BO038/22

#### **II.1.2) Main CPV code**

- 48000000 - Software package and information systems

#### **II.1.3) Type of contract**

Supplies

#### **II.1.4) Short description**

As part of the LongOps project, it is required to develop de-risking virtual tools such as a digital-twin systems linked to a real system interacting directly with the real world. In order to maintain an accurate, up-to-date digital twin, it is necessary to sense the real environment in real-time using a variety of sensors of different types, to compile an accurate combined model of the environment virtually, and to present this information to the operator in the most effective manner. Due to the effects of radiation and other inherent qualities of sensing devices, the data retrieved is expected to be inexact. Characteristics such as noise, reliability, confidence interval, linearity, etc., may affect the estimation of the digital-twin state.

UKAEA wishes to procure innovative solutions for the development of novel, cutting-edge sensor data integration and perception techniques to support the de-risking of operations using digital twins.

#### **II.1.5) Estimated total value**

Value excluding VAT: £240,000

#### **II.1.6) Information about lots**

This contract is divided into lots: No

## II.2) Description

### II.2.2) Additional CPV code(s)

- 48100000 - Industry specific software package
- 48150000 - Industrial control software package
- 48328000 - Image-processing software package
- 48461000 - Analytical or scientific software package
- 48518000 - Emulation software package
- 48627000 - Real-time operating system software package
- 48900000 - Miscellaneous software package and computer systems
- 48931000 - Training software package
- 48960000 - Drivers and system software package
- 48983000 - Development software package
- 72212000 - Programming services of application software
- 72212100 - Industry specific software development services
- 72212150 - Industrial control software development services
- 72212328 - Image-processing software development services
- 72212461 - Analytical or scientific software development services
- 72212510 - Communication software development services
- 72212517 - IT software development services
- 72212518 - Emulation software development services
- 72212670 - Real time operating system software development services
- 72212700 - Software development services utilities
- 72212900 - Miscellaneous software development services and computer systems
- 72227000 - Software integration consultancy services
- 72260000 - Software-related services
- 72262000 - Software development services

- 73000000 - Research and development services and related consultancy services

### **II.2.3) Place of performance**

NUTS codes

- UKJ14 - Oxfordshire

### **II.2.4) Description of the procurement**

As part of the LongOps project, it is required to develop de-risking virtual tools such as a digital-twin systems linked to a real system interacting directly with the real world. In order to maintain an accurate, up-to-date digital twin, it is necessary to sense the real environment in real-time using a variety of sensors of different types, to compile an accurate combined model of the environment virtually, and to present this information to the operator in the most effective manner. Due to the effects of radiation and other inherent qualities of sensing devices, the data retrieved is expected to be inexact. Characteristics such as noise, reliability, confidence interval, linearity, etc., may affect the estimation of the digital-twin state.

UKAEA wishes to procure innovative solutions for the development of novel, cutting-edge sensor data integration and perception techniques to support the de-risking of operations using digital twins.

### **II.2.5) Award criteria**

Quality criterion - Name: Quality / Weighting: 65%

Quality criterion - Name: Social Value / Weighting: 10%

Price - Weighting: 25%

### **II.2.6) Estimated value**

Value excluding VAT: £240,000

### **II.2.7) Duration of the contract, framework agreement or dynamic purchasing system**

Duration in months

17

This contract is subject to renewal

No

**II.2.10) Information about variants**

Variants will be accepted: No

**II.2.11) Information about options**

Options: No

**II.2.13) Information about European Union Funds**

The procurement is related to a project and/or programme financed by European Union funds: No

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## **Section III. Legal, economic, financial and technical information**

### **III.1) Conditions for participation**

#### **III.1.1) Suitability to pursue the professional activity, including requirements relating to enrolment on professional or trade registers**

List and brief description of conditions

Refer to Procurement Documents for information.

#### **III.1.2) Economic and financial standing**

List and brief description of selection criteria

Refer to Procurement Documents for information.

Minimum level(s) of standards possibly required

Refer to Procurement Documents for information.

#### **III.1.3) Technical and professional ability**

List and brief description of selection criteria

Refer to Procurement Documents for information.

Minimum level(s) of standards possibly required

Refer to Procurement Documents for information.

### **III.2) Conditions related to the contract**

#### **III.2.2) Contract performance conditions**

Refer to Procurement Documents for information.

## **Section IV. Procedure**

### **IV.1) Description**

#### **IV.1.1) Type of procedure**

Open procedure

#### **IV.1.8) Information about the Government Procurement Agreement (GPA)**

The procurement is covered by the Government Procurement Agreement: No

### **IV.2) Administrative information**

#### **IV.2.2) Time limit for receipt of tenders or requests to participate**

Date

29 April 2022

Local time

12:00pm

#### **IV.2.4) Languages in which tenders or requests to participate may be submitted**

English

#### **IV.2.6) Minimum time frame during which the tenderer must maintain the tender**

Duration in months: 3 (from the date stated for receipt of tender)

#### **IV.2.7) Conditions for opening of tenders**

Date

29 April 2022

Local time

12:00pm

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## **Section VI. Complementary information**

### **VI.1) Information about recurrence**

This is a recurrent procurement: No

### **VI.2) Information about electronic workflows**

Electronic ordering will be used

Electronic invoicing will be accepted

Electronic payment will be used

### **VI.4) Procedures for review**

#### **VI.4.1) Review body**

UK Atomic Energy Authority

Culham Science Centre

Abingdon

OX14 3DB

Country

United Kingdom

Internet address

<https://www.gov.uk/government/organisations/uk-atomic-energy-authority>

#### **VI.4.2) Body responsible for mediation procedures**

UK Atomic Energy Authority

Culham Science Centre

Abingdon

OX14 3DB

Country

United Kingdom

Internet address

<https://www.gov.uk/government/organisations/uk-atomic-energy-authority>

#### **VI.4.3) Review procedure**

Precise information on deadline(s) for review procedures

VI.4.2) Body responsible for mediation procedures

VI.4.3) Review procedure

Precise information on deadline(s) for review procedures:

The authority will incorporate a minimum 10 calendar day standstill period at the point information on the award of the contract is communicated to tenderers.

This period allows unsuccessful tenderers to seek further debriefing from the authority before a contract is entered into applicants have 2 working days from the notification of the award decision to request. Additional debriefing and that information have to be provided within a minimum of 3 working days before the expiry of the standstill period. Such additional information should be sought from the contact named in this notice.

If an appeal regarding the award of a contract has not been successfully resolved, the Public Contracts Regulations 2015 (SI 2015 No. 102) provide for aggrieved parties who have been harmed or are at risk of harm by a breach of the rules to take action in the High Court (England, Wales and Northern Ireland).

Any such action must be brought promptly.

(generally within 3 months).

#### **VI.4.4) Service from which information about the review procedure may be obtained**

UK Atomic Energy Authority

Culham Science Centre

Abingdon

OX14 3DB

Country

United Kingdom

Internet address

<https://www.gov.uk/government/organisations/uk-atomic-energy-authority>