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Planning

Modelling of Critical Nuclear Facilities

UNITED KINGDOM NATIONAL NUCLEAR LABORATORY LIMITED

UK2: Preliminary market engagement notice - Procurement Act 2023 - [view information about notice types](#)

Notice identifier: 2025/S 000-065480

Procurement identifier (OCID): ocds-h6vhtk-05cd07

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Scope

Reference

NNLC692.1 3D

Description

Development of 3D Models for Nuclear Facilities.

The International Atomic Energy Agency (IAEA) maintains its ability to verify the nuclear programmes of non-nuclear weapon State (NNWS), including the capability to rapidly respond to any significant changes required for the implementation of safeguards-related activities in the field. As one part of its longer-term preparedness activities to date, the Department of Safeguards has already been able to acquire and demonstrate a limited technical capability in using Virtual Reality (VR) navigation inside real-world 3D scans, including the ability to attach relevant geobased data sources to 2D optical imagery. Lessons learned from previous VR projects have already been applied in the development of the current capability. However, to be more effective in its ability to rapidly respond to potentially significant changes in the short term, there is a need for the Department of Safeguards to develop 3D models of a number of very specific critical facilities.

As part of its long term preparedness activities, the Department of Safeguards needs to develop the ability to develop and use 3D and Virtual Reality (VR) models for training, analysis and knowledge management. This task will support the creation of models for a number of different nuclear facilities and sites, in close consultation with IAEA experts and inspectors. The 3D models will provide tangible benefits in terms of knowledge management and implementation of safeguards. This will include the training/familiarization of inspectors who may have limited experience of the specific processes at the selected critical nuclear facilities and implementation of safeguards therein.

The activity within this task is highly specialised, requiring significant technical knowledge and capabilities with advanced state-of-the-art 3D modelling technology. The proposed contractor must have experience of developing 3D models and resources similar to the facilities of interest. In addition, models must have the capability of being integrated with relevant IAEA Safeguards IT architecture, standards, policies and procedures. The proposed contractor must demonstrable experience of working with the nuclear sector. The specific target for the research is considered sensitive and, therefore suppliers must meet the minimum security requirements to handle, OFFICIAL SENSITIVE information.

Total value (estimated)

- £400,000 excluding VAT
- £480,000 including VAT

Above the relevant threshold

Contract dates (estimated)

- 1 April 2026 to 31 March 2029
- Possible extension to 31 March 2031
- 5 years

Main procurement category

Services

CPV classifications

- 71356000 - Technical services
- 72200000 - Software programming and consultancy services
- 98113000 - Services furnished by specialist organisations

Contract locations

- UKD61 - Warrington

Engagement

Engagement deadline

29 October 2025

Engagement process description

This market engagement seeks supplier feedback to inform the procurement and programme of work.

Interested parties who have demonstrable experience to deliver the scope of work should contact procurement@uknnl.com before 17:00 pm on Wednesday 29th October 2025, to receive a Request for Information Questionnaire (RFI).

Participation

Particular suitability

Small and medium-sized enterprises (SME)

Contracting authority

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- Companies House: 03857752
- Public Procurement Organisation Number: PVXT-8784-YGNV

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Region: UKD61 - Warrington

Organisation type: Public authority - sub-central government