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Planning

Supply, Deployment, and Translation of Hydrophones for Underwater Acoustic Facility

NPL Management Limited

UK2: Preliminary market engagement notice - Procurement Act 2023 - <u>view information</u> <u>about notice types</u>

Notice identifier: 2025/S 000-082100

Procurement identifier (OCID): ocds-h6vhtk-05f2f9

Published 11 December 2025, 3:03pm

Changes to notice

This notice has been edited. The <u>previous version</u> is still available.

Scope

Description

NPL is seeking a solution for the deployment and translation of a set of hydrophones into an underwater acoustic facility.

The facility is an underwater acoustic calibration tank consisting of a large wooden vessel (5.5m in diameter and 5m deep) filled with potable water. The calibration activities will be performed with either 2 or 3 hydrophones deployed at the mid-depth point of the vessel. The hydrophones are mounted at the end of carbon fibre poles of minimum size to avoid acoustic reflections. The size and design of the poles is flexible and may be adjusted to the solution (this will be the responsibility of NPL). The poles may be permanently attached to the solution as long as the hydrophones can be removed and mounted onto the ends.

The schematic and model of the facility attached depict dimensions, swept volume required of each hydrophone (shown as coloured prisms), starting positions of the hydrophones (shown at the top of each prism) and extreme positions of the hydrophones (shown at the bottom of the prisms).

The facility is operated from the first floor, and it currently has 3 separate linear axis carriage systems (as shown in the images attached). The facility features a concrete floor, steel framework around the vessel, a HVAC system and an overhead crane. The size of the room cannot be altered, but modifications to the concrete floor and steel framework are feasible for attachment/fixing of solutions.

NPL has conducted initial research into possible solutions such as industrial robots. NPL is open to explore different solutions to meet the requirements below.

NPL is seeking engagement from suppliers who have capability to provide a solution to the following requirements:

- The solution must be able to deploy the hydrophones maintaining the poles always in a vertical position for scanning under computer control.
- The solution must be able to translate the hydrophones in X, Y & Z against each other effectively scanning a flat plane across the projected beam.
- The solution must enable rotation of the poles about their axis to aim the hydrophones.
- The solution must be able to lift the poles out of the water for an operator to safely load the hydrophones to onto the end.
- The solution must have a minimum payload capability of 300kg.
- The solution must be able to scan in incremental steps of 1±0.5mm.
- The solution should feature a control software compatible with LabVIEW (other options will be considered)

This is not an evaluation exercise and nothing in this activity will limit the opportunity to engage in any follow on ITT.

Total value (estimated)

- £200,000 excluding VAT
- £240,000 including VAT

Above the relevant threshold

Contract dates (estimated)

- 1 April 2026 to 31 March 2027
- 1 year

Main procurement category

Goods

CPV classifications

- 38800000 Industrial process control equipment and remote-control equipment
- 42400000 Lifting and handling equipment and parts
- 51000000 Installation services (except software)
- 71000000 Architectural, construction, engineering and inspection services
- 73000000 Research and development services and related consultancy services

Contract locations

• UK - United Kingdom

Engagement

Engagement deadline

23 January 2026

Engagement process description

Prior to initiating the procurement, NPL wishes to establish the level of market interest in the forthcoming procurement process.

Suitably qualified and experienced suppliers who may have an interest in this project are invited to register for this Preliminary Market Engagement.

The purpose of the market engagement is to help assess the reaction of the market, to understand risks and future possibilities to ensure a future proofed procurement strategy and resulting contract.

Any submission received in response to this exercise will not constitute any contractual agreement between the respondent and NPL. Nor does the receipt of a response automatically include the respondent in the procurement process.

A Tender Notice will be issued to the market which will provide details of how the relating procurement documentation can be accessed and timescales for submission of the said tender response.

Interested parties shall bear their own costs of participation in this Market Engagement of whatever nature. NPL shall not be liable for the costs, expenses or losses howsoever arising (including, without limitation, any loss of profit or other economic loss incurred), regardless of the outcome of the Market Engagement.

The next stage in the process will be considered once this exercise has been completed.

Questions:

Your Organisation

- 1. What is your organisation's name?
- 2. What is your name and role at the organisation?
- 3. Please Provide a brief description of your Organisation
- 4. Please provide the location (s) of your organisations operational facilities (eg headquarters, manufacturing site).

Capabilities

- 5. Does your organisation have the capability to deliver a solution in line with the requirements described in the Scope section of this document.
- a. If yes, please provide an estimated lead time for delivery from the point of contract award.
- b. Are there any current or upcoming commitments, capacity constraints, or resource limitations that may affect your ability to submit an offer or deliver the project.

Scope Delivery & Budget Alignment

6. Would your organisation be able to deliver the full project scope independently?

If not, please specify which elements would require sub-contracting and identify any anticipated delivery partners (if known).

- 7. Are there any risks, issues, or opportunities that you believe NPL should consider in relation to the delivery of this project?
- 8. NPL's estimated budget for this project is £200,000 excluding VAT. Please confirm if delivery within this budget is feasible. If not please provide an indicative budget for a project of this nature.

Route to Market, Contractual Terms & Timescales

9. NPL intends to conduct the Invitation to Tender (ITT) under the Flexible Procedure.

Would your organisation be interested in participating via this route to market? If not please outline any concerns or barriers

10. Would your organisation find it beneficial to attend an in-person market engagement

session at the NPL site in Teddington?

If an in-person session is not preferred, would your organisation favour a hybrid format (combination of on-site and virtual attendance)?

Please specify your preference and rationale

- 11. Are there any contract terms or commercial conditions that your organisation would consider unacceptable, or any terms that if not included would deter your participation?
- 12. The anticipated Invitation to Tender (ITT) period is 6 weeks.

Do you consider this to be sufficient?

If not, please propose an alternative timeframe and provide supporting rationale.

Other Considerations

13. Are there any residual risks / recommendations / issues that you think we should consider when drafting the scope and the procurement strategy for this project?

If you have any questions, or would like to provide a response to the above, please email etenders@npl.co.uk to request the following:

- Preliminary Market Engagement Supplier Questionnaire "FOR RESPONSES" excel spreadsheet
- A schematic and model of the facility.

Please return all responses by 17.00, Wednesday 14th January 2026

Participation

Particular suitability

Small and medium-sized enterprises (SME)

• Voluntary, community and social enterprises (VCSE)

Contracting authority

NPL Management Limited

• Companies House: 02937881

• Public Procurement Organisation Number: PYDB-8862-JBYM

National Physical Laboratory

Teddington

TW11 0LW

United Kingdom

Email: etenders@npl.co.uk

Website: http://www.npl.co.uk

Region: UKI75 - Hounslow and Richmond upon Thames

Organisation type: Public undertaking (commercial organisation subject to public authority oversight)