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Planning

DSIT – NMS – LGC Government Chemist

Department for Science, Innovation & Technology

UK2: Preliminary market engagement notice - Procurement Act 2023 - view information about notice types

Notice identifier: 2025/S 000-050657

Procurement identifier (OCID): ocds-h6vhtk-051f99 (view related notices)

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Changes to notice

This notice has been edited. The previous version is still available.

Scope

Description

The Government Chemist (GC) programme, funded by DSIT, allows the GC to act as an independent arbitrator laboratory to resolve scientific disputes and provide advice to government in the food and feed sectors alongside developing new capabilities to address future needs. This is a statutory function.

Contract dates (estimated)

- 1 April 2026 to 31 March 2030
- 4 years

Main procurement category

Services

CPV classifications

- 71900000 - Laboratory services

Engagement

Engagement deadline

3 September 2025

Engagement process description

Preliminary Market Engagement for National Measurement System Programmes 2026-2030

Background Information:

The National Measurement System (NMS) is the UK's infrastructure of laboratories and capabilities that deliver world-class measurement science and provide accurate, precise, and traceable measurements that underpin research, innovation, and trade.

The NMS enables the UK to compete in global trade and manufacturing by ensuring consistency and recognition of measurement units and standards throughout the world. Internationally-leading knowledge and expertise is passed on to UK stakeholders by a coordinated programme of knowledge transfer.

The Department for Science, Innovation and Technology (DSIT) supports the NMS because of the substantial impact it has on every aspect of UK life and its economic success. DSIT does so by funding science programmes delivered by the UK's National Metrology Institute, the National Physical Laboratory (NPL), and other nationally designated metrology institutes.

The science programmes are focused across a range of sectors and technology areas, including:

• Advanced manufacturing, including power electronics, metamaterials, semiconductors, and mass, dimensional, and temperature measurements.

Current projects include:

o Providing and maintaining the UK's national primary standards for temperature, humidity, mass, force, and length.

o Establishing metrology capabilities to test and evaluate new semiconductor materials.

• Digital, including communications and time and electromagnetic measurements.

Current projects include:

o Research to maintain the UK's world-class optical frequency metrology and influence the international redefinition of the SI second.

o Maintaining and delivering SI-traceable realisations of electrical, magnetic, and optical units.

o Developing data science capabilities and tools to improve end-users' confidence in their use of metrology data and AI systems.

• Life sciences and health, including radiation dosimetry, bioimaging, and engineering biology.

Current projects include:

o Maintaining and developing the UK's primary standards for ionising radiation, and providing validation and measurement confidence for radiotherapy, nuclear medicine, and

associated imaging provided by the NHS and other healthcare providers.

o Research and development to establish measurement capabilities, SI-traceable phantom materials, uncertainty assessments, and guidance for quantitative imaging in PET, SPECT, MRI and ultrasound.

• Energy and environment, including gas composition and fluxes, and metrology for clean technology.

Current projects include:

o Maintaining and developing the UK's primary standards for gas composition and aerosol measurements.

o Developing measurement procedures and reference materials for the measurement of environmental DNA (eDNA).

• Quantum, including quantum sensing, computing, and timing and navigation.

Current projects include:

o Developing test and evaluation capabilities for security assurance of commercially available quantum communications products such as Quantum Key Distribution systems and Quantum Random Number Generator devices.

o Providing metrology, testing, and benchmarking for UK industry in the development of the next generation of quantum sensors for magnetometry and imaging, including their applications in health care and critical infrastructure.

• Chemical and biological metrology, including purity measurements, organic analysis, isotope ratios, and the delivery of the statutory Government Chemist function.

Current projects include:

o Maintaining and delivering accredited, SI-traceable calibration and reference materials for purity determination.

o Developing and validating measurement methods to quantify particle additives in regulated consumer products and accidental food and environmental pollutants.

o Develop capabilities to analyse and act as a referee in relation to alternative protein sources such as edible insects, plant-based alternatives, and seaweed.

o Provide authoritative analysis to resolve measurement-related disputes between

businesses and enforcement bodies.

• Gears metrology.

Current projects include:

o Providing and maintaining the UK's primary standards for the measurement and characterisation of gears.

These programmes are currently provided via contracted services for DSIT by:

• The National Physical Laboratory (NPL), the UK's National Metrology Institute;

• The National Measurement Laboratory at LGC (formerly the Laboratory of the Government Chemist), the UK's designated institute for chemical and biological measurement;

• TÜV SÜD National Engineering Laboratory, the UK's designated institute for flow measurement;

• The National Gear Metrology Laboratory, the UK's designated institute for gear measurement.

The purpose of this questionnaire is to better understand the market for fundamental metrology capabilities in the UK ahead of the current contracts expiring on 1st April 2026, and assess whether any of the DSIT NMS programmes could be delivered, in whole or in part, by alternative providers.

Service Description:

The aims of these programmes are to:

1) Ensure that industry, researchers, regulators, and other users in the UK can reliably, accurately, and precisely measure, test, calibrate, and validate their products, services, and processes, as necessary to support, for example, trade, scientific research, the development of innovative technologies, environmental monitoring and protection, and public health.

2) Directly support innovation by helping businesses to overcome measurement and analytical problems, and bringing more businesses, researchers, and other stakeholders to the technological frontier through consultancy and training services.

The services involved in delivering these programmes may include, across all sector and technology areas set out above:

• Developing and maintaining, to the highest accuracy, precision, and traceability, the UK's fundamental measurement standards in a given area. The accuracy and uncertainty of these standards must be evidenced through, for example, the highest standards of accreditation. This will involve applied research and the development, validation and documentation of measurement protocols, instrumentation, reference materials, and reference data, and will involve collaboration with partners as appropriate.

• Collaborating with standards bodies, regulators, and other stakeholders to develop and advise on technical standards, regulatory frameworks, and testing and calibration methodologies to support technological development.

• Horizon-scanning and engagement with stakeholders (including industry, researchers, and the government) to identify, and develop the capabilities required to meet, new measurement needs.

• Collaborating with national metrology institutes and designated institutes in other countries on joint research and development projects.

• Knowledge transfer and support for industry, researchers, and other stakeholders through collaboration with businesses, publication of research, training, and consultancy services. This work will leverage the expertise developed through the development and maintenance of the fundamental measurement standards.

• Acting as an impartial scientific arbitrator of measurement and analytical disputes.

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, including information on:

a. The services you provide and the sectors and technologies you cover.

b. The approximate size and revenue of your business (or the parts thereof that deliver measurement services or R&D).

c. Where your services are carried out.

Measurement Capabilities

4. What fundamental measurement capabilities and services does your organisation provide? Please describe:

a. The measurement, testing, calibration, or validation activities your organisation carries out, and the sectors and technologies in which these are offered.

b. The level of uncertainty your organisation achieves in those activities.

c. Any accreditations your organisation holds, or is in the process of securing, in relation to the preceding.

d. The traceability of your activities.

e. Whether your measurements are, or could function as, a UK primary standard. Please explain and justify any claim.

5. What experience does your organisation have in providing measurement services to customers?

6. What experience does your organisation have in undertaking applied research in fundamental metrology?

Collaboration

7. What experience does your organisation have in working with other organisations to develop or advise on technical standards, regulatory frameworks, and measurement protocols?

8. What other experience does your organisation have working with government, industry, academia, international partners, and other stakeholders in relation to metrology?

Knowledge Transfer

9. What experience does your organisation have in disseminating the knowledge and expertise developed through the measurement capabilities and services your organisation provides? Please describe any activities you undertake (e.g., training, publications, consultancy services, and collaborative projects with business) and your audiences.

Quality Assurance

10. What quality assurance plans do you have in place to ensure the reliability and accuracy of your measurements?

Programme Delivery

11. What parts, if any, of the NMS programmes could your organisation deliver? In which fields, technologies, or sectors could your organisation deliver them? Justify this by reference to your previous answers.

If you have any further questions, or would like to provide a response to the above, please email barney.rankin2@dsit.gov.uk to request a "DSIT National Measurement System Preliminary Market Engagement Supplier Questionnaire FOR RESPONSES" excel sheet.

We then politely request that all responses are returned to barney.rankin2@dsit.gov.uk by 17:00, Wednesday 03rd September, 2025.

Participation

Particular suitability

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

Submission

Publication date of tender notice (estimated)

2 March 2026

Contracting authority

Department for Science, Innovation & Technology

- Public Procurement Organisation Number: PVWZ-3216-PVQL

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