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Planning

Healthcare AI Solutions (SBS10523)

NHS Shared Business Services Limited

F01: Prior information notice
Prior information only
Notice identifier: 2025/S 000-001651
Procurement identifier (OCID): ocds-h6vhtk-04d412
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Section I: Contracting authority

I.1) Name and addresses

NHS Shared Business Services Limited

Three Cherry Trees Lane

Hemel Hempsted

HP2 7AH

Email

nsbs.digital@nhs.net

Country

United Kingdom

Region code

UK - United Kingdom

Companies House

05280446

Internet address(es)

Main address

https://www.sbs.nhs.uk/

I.3) Communication

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

https://discovery.ariba.com/rfx/21660000

Additional information can be obtained from the above-mentioned address

I.4) Type of the contracting authority

Other type

Public Sector Framework Provider https://www.sbs.nhs.uk/nhs-sbs-about-us

I.5) Main activity

Health

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

Healthcare AI Solutions (SBS10523)

Reference number

SBS10523

II.1.2) Main CPV code

- 48180000 - Medical software package

II.1.3) Type of contract

Supplies

II.1.4) Short description

NHS Shared Business Services Limited (NHS SBS) act in an Agency capacity for and on behalf of its customers (Approved Organisations) - existing and new. These comprise of NHS and Social Care organisations (whether acting individually, or on behalf of, or together as members of any consortia) along with any other public or private sector bodies which NHS SBS authorises to use the resulting Framework.

NHS SBS intends to put in place a Framework Agreement under the Procurement Act 2023 for the provision of Healthcare AI Solutions and related Goods and Services for Healthcare and wider public sector to be used by NHS SBS Approved Organisations.

Our Approved Organisation list can be found on:

https://sbs.nhs.uk/proc-framework-agreements-support

We are committed to working with suppliers who are dedicated to Sustainability and Social Value and there will be a significant weighting on these elements in the tender.

II.1.5) Estimated total value

Value excluding VAT: £150,000,000

II.1.6) Information about lots

This contract is divided into lots: Yes

II.2) Description

II.2.1) Title

Radiology and diagnostic imaging

Lot No

1

II.2.2) Additional CPV code(s)

- 33110000 - Imaging equipment for medical, dental and veterinary use
- 33190000 - Miscellaneous medical devices and products

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

II.2.4) Description of the procurement

Lot 1 supports the delivery of a compliant route to market for the analysis of medical imaging for rapid diagnosis; this enables clinicians diagnose, assist and provide faster treatment reliably.

This lot will support the NHS to adopt life changing technologies and provide a better outcome for patients. These technologies use AI algorithms, deep learning models who are trained on a large dataset of medical images, enabling them to identify patterns that may be missed by the human eye.

AI can analise medical images in seconds and helps detect strokes, asymptomatic conditions, future diseases, suspicious areas, small tumours or subtle abnormalities when time is of essence. AI-powered systems provide real-time, evidence-based recommendations during patient consultations.

These systems can suggest potential diagnoses and treatment options based on the latest clinical guidelines and patient data.

Lot 1 will be a multidisciplinary lot designed to cover different areas of care.

II.2.14) Additional information

Lot 1a - Neurology AI is used to diagnose neurological disorders such as Alzheimer's disease, Parkinson's disease, and multiple sclerosis through imaging and other diagnostic tests.

Lot 1b - Obstetrics and Gynaecology AI uses medical imaging to detect lumps, ovarian cancer, endometriosis, fetal structures, anatomical development, and early detection of pregnancy complications etc.

Lot 1c - Oncology AI aids in the early detection and diagnosis of various cancers by analysing imaging data, genetic information, and patient records.

Lot 1d - Orthopaedics AI analises medical images to diagnose and treat musculoskeletal conditions such as fractures, osteoarthritis, bone tumour, helps bone age assessment, prosthetics planning.

Lot 1e - Cardiology AI analises medical images to diagnose and treat coronary artery disease, heart failure, arrhythmia, aortic aneurysm, etc.

Lot 1f - Gastroenterology AI systems can analyse endoscopic images to detect gastrointestinal diseases, including colorectal cancer and inflammatory bowel disease.

Lot 1g - Urology AI analises medical images to detect and treat kidney stones, renal mass detection, pelvic floor disorders, tumours.

Lot 1h - Ophthalmology AI systems can detect eye diseases such as diabetic retinopathy, glaucoma, and age-related macular degeneration from retinal images.

Lot 1i - AI is used to analyse neurological data to identify risk of Stroke or stroke occurrence and extent of damage. mutations and predict the risk of inherited diseases.

II.2) Description

II.2.1) Title

Pathological Diagnosis and early detection

Lot No

2

II.2.2) Additional CPV code(s)

- 33110000 - Imaging equipment for medical, dental and veterinary use

- 33190000 - Miscellaneous medical devices and products

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

II.2.4) Description of the procurement

Lot 2 supports the delivery of a compliant route to market for the analysis of samples for rapid diagnosis.

This lot will support the NHS to adopt technologies who use AI algorithms, deep learning models who are trained on large dataset enabling them to identify patterns that cannot be detected in a normal clinical setting or laboratory.

AI can analise digital slides from biopsies, tissue, cells, blood, bone marrow, to help detect cancer and other diseases optimising workflow in pathology labs.

AI is transforming the field by enabling faster, more consistent, and more detailed analysis of tissue samples. This leads to earlier diagnosis, better treatment outcomes, and more efficient use of pathology resources.

Lot 2 will be a multidisciplinary lot designed to cover different areas of care.

II.2.14) Additional information

Lot 2a - Haematology AI tools assist in diagnosing blood disorders by analysing blood samples and identifying abnormalities in blood cells. AI uses algorithms to detect cell classification, blood disorders, anaemia, leukemia, sickle cell.

Lot 2b - Virology AI uses biological samples to detect, identify and monitor viral infections.

Lot 2c - Dermatology IA is used to analise skin samples and improve the diagnosis and management of skin conditions.

Lot 2d - Oncology AI aids in the early detection and diagnosis of various cancers by analysing samples, genetic information, and patient records.

Lot 2e - Genomics AI is used to analyse genetic data to identify mutations and predict the risk of inherited diseases.

II.2) Description

II.2.1) Title

Predictive Analytics

Lot No

3

II.2.2) Additional CPV code(s)

- 48180000 - Medical software package

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

II.2.4) Description of the procurement

Lot 3 supports the delivery of a compliant route to market for the provision of solutions who focus on transforming patient care. This lot will support the NHS to adopt technologies who use AI algorithms, deep learning models who are trained on large dataset enabling operational efficiencies.

AI can forecast volumes by predicting number of patients likely to be admitted in the coming days or weeks, optimise staffing levels, and ensures resources are adequately aligned to patient needs.

Predictive analytics can help healthcare organisations estimate future healthcare costs allowing better budget management and financial planning. The system send notification when a risk is identified alerting healthcare professionals to intervene before a patient requires admission. Optimises bed management by predicting discharge dates, this ensures that beds are available for incoming patients, reducing wait times.

AI plays a crucial role in predictive analytics for patient appointments, supporting healthcare providers optimise scheduling, categorise patients whilst improve their satisfaction and use resource efficiently. AI tools can analise patient history and create personalised communications strategies focusing the importance of the visit.

Lot 3 will be divided in 2 sublots.

II.2.14) Additional information

Lot 3a Hospital Admissions: AI algorithms predict which patients are at high risk of

hospital admission, allowing for early intervention and better resource allocation.

Lot 3b Patient Appointments: AI predicts likely missed appointments using algorithms that consider factors like weather, traffic, and patient history, helping to reduce no-show rates.

II.2) Description

II.2.1) Title

Research and Development

Lot No

4

II.2.2) Additional CPV code(s)

- 73000000 - Research and development services and related consultancy services

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

II.2.4) Description of the procurement

Lot 4 supports the delivery of a compliant route to market for the provision of solutions who focus on transforming drug discovery and clinical trials.

Machine learning, data analytics and other AI technologies can accelerate development of processes that improve accuracy and helps reduce costs. These algorithms help analyse large database of compounds to identify candidates for testing, facilitates virtual screening of chemical information to accelerate drug discovery.

AI models predict interactions between drug candidates and their targets, allowing researchers to prioritise the most promising compounds. Some techniques are used to shift through scientific literature, extracting relevant data on drug interactions, side effects and mechanisms of action.

During clinical trials AI can support by analysing patient records to match patients to appropriate clinical trials, improving efficiency. AI tools can help simulate various trial design and predict outcomes based on historical data. AI plays a significant role in both the design and management of clinical trials by utilising advanced algorithms to optimise trial protocols and monitor real time data.

Lot 4 is divided into 2 sublots.

II.2.14) Additional information

Lot 4a Drug Discovery: AI accelerates the drug discovery process by analysing large datasets to identify potential drug candidates.

Lot 4b Clinical Trials: AI helps in designing and managing clinical trials, improving the efficiency and accuracy of research.

II.2) Description

II.2.1) Title

Operational Efficiency

Lot No

5

II.2.2) Additional CPV code(s)

- 48180000 - Medical software package

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

II.2.4) Description of the procurement

Lot 5 supports the delivery of a compliant route to market for the provision of solutions who focus on operational efficiency in healthcare.

In resource management AI algorithms analyse historical data, seasonal trends, and patterns to forecast volumes, determine optimal staffing levels especially during peak times. This can happen with the help of schedules, alerts that staff are receiving when supplies are running low and automatically placing orders when stocks become low to avoid shortages.

Tools can analyse data from medical equipment to predict when maintenance is needed ensuring everything is always operational. Machine learning analyses patterns to predict potential issues or failures before they occur.

Ai also has the ability to evaluate suppliers performances and analyse delivery times,

quality of goods, cost effectiveness helping organisations make informed decisions. These tools can also make assessments on the risks associated with suppliers enabling mitigation plans.

Streamlining procurement processes by automating orders/bulk buying can significantly reduce waiting times and increase efficiency.

Lot 5 is a divided into two sublots.

II.2.14) Additional information

Lot 5a Resource Management: AI helps in managing hospital resources, such as bed availability and staff allocation, to optimize operations and reduce waiting times.

Lot 5b Supply Chain Management: AI optimizes the supply chain for medical supplies and medications, ensuring timely availability and reducing waste.

II.2) Description

II.2.1) Title

Specialised support

Lot No

6

II.2.2) Additional CPV code(s)

- 79000000 - Business services: law, marketing, consulting, recruitment, printing and security

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

II.2.4) Description of the procurement

Lot 6 provides a compliant route to market for AI consultancy, implementation and training services that will support the NHS and the wider public sector organisations in their attempt to adapt smart technology.

Consultants work with healthcare organisations specific areas where AI can provide value, they develop strategic plans on how AI can be integrated into existing workflows. This process includes the support which focuses on selecting appropriate vendors in the

market insuring the offering is in line with requirements.

An important aspect of AI adoption is collaboration with different stakeholders and IT teams, clinical staff during implementation of an AI solutions into existing systems. Teams support with data integration and workflow alignment whilst specialists training sessions for the healthcare professionals on how to use AI tools.

On this stage staff receives ongoing technical support and resources to address any challenges that might occur post implementation, ensuring organisations maximise their AI investment.

Lot 6 is divided into 3 sublots.

II.2.14) Additional information

Lot 6a Consultancy Specialised advisory services for the adoption and implementation of AI in healthcare

Lot 6b Implementation Specialised services designed to integrate AI technologies in healthcare organisations effectively

Lot 6b Training Specialised programs designed to help educate healthcare professionals about the use and application of AI Technologies

II.3) Estimated date of publication of contract notice

22 August 2025

Section IV. Procedure

IV.1) Description

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

The procurement is covered by the Government Procurement Agreement: Yes

Section VI. Complementary information

VI.3) Additional information

This Prior Information Notice (PIN) is to signal an intention to commence market engagement with suppliers within the market for Artificial Intelligence solutions for Healthcare.

Please complete and return the RFI (Request for Information) via the SAP Ariba portal. Should you have access issues, please contact nsbs.digital@nhs.net for a digital copy.

NHS Shared Business Services Limited (NHS SBS) reserves the right to withdraw this notice at any time. NHS SBS is not bound to accept any proposals submitted by Bidders and is not liable for any costs incurred as a result of Bidders engaging with this process. This early market engagement exercise does not guarantee that a Procurement will take place and NHS SBS reserves the right to defer from any Procurement entirely.

NHS SBS intends to hold market engagement sessions during March and April 2025 with industry experts and suppliers interested in potentially bidding for the resulting Framework Agreement.

NHS SBS will use an eSourcing system for any procurement activity taken subsequent to this PIN. The eSourcing system we will use is SAP Ariba.

Please note that, to register, you must have a valid DUNS number (as provided by Dun and Bradstreet) for the organisation which you are registering, who will be entering into a Framework Agreement if invited to do so.

The value in II.1.5 is an indicative value over multiple years from 06/02/2026

The date in II.3) is the estimated date of publication, please monitor Find a Tender Service https://www.find-tender.service.gov.uk/Search for the publication of the relevant high value contract notice.