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Planning

Contract for sample tracking system for NHS Scotland Whole Genome Sequencing Service

The Common Services Agency (more commonly known as NHS National Services Scotland) ("NSS")

F01: Prior information notice

Prior information only

Notice identifier: 2021/S 000-012257

Procurement identifier (OCID): ocds-h6vhtk-02b753

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Section I: Contracting authority

I.1) Name and addresses

The Common Services Agency (more commonly known as NHS National Services Scotland) ("NSS")

Gyle Square (NSS Head Office), 1 South Gyle Crescent

Edinburgh

EH12 9EB

Email

david.taggart@nhs.scot

Telephone

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Country

United Kingdom

NUTS code

UKM - Scotland

Internet address(es)

Main address

<https://www.nss.nhs.scot/browse/procurement-and-logistics>

Buyer's address

https://www.publiccontractsscotland.gov.uk/search/Search_AuthProfile.aspx?ID=AA11883

I.2) Information about joint procurement

The contract is awarded by a central purchasing body

I.3) Communication

Additional information can be obtained from the above-mentioned address

I.4) Type of the contracting authority

Body governed by public law

I.5) Main activity

Health

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

Contract for sample tracking system for NHS Scotland Whole Genome Sequencing Service

Reference number

NP868-21

II.1.2) Main CPV code

- 48180000 - Medical software package

II.1.3) Type of contract

Supplies

II.1.4) Short description

Software solution to track clinical samples through the end to end process of the NHS Scotland Whole Genome Sequencing from sample reception to sequencing raw data output.

The system will be required at two sites, one in the east and one in the west of Scotland, and work across these as one.

The solution will require track samples through multiple different laboratory instruments.

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.2) Additional CPV code(s)

- 48814000 - Medical information systems
- 48814400 - Clinical information system

II.2.3) Place of performance

NUTS codes

- UKM - Scotland

II.2.4) Description of the procurement

The NHS in Scotland is setting up a National Sequencing Services to carry out Whole Genome Sequencing (WGS) as part of the development of this Service the need for a sample tracking system has been identified, to ensure a managed, quality assured automated service is delivered with a high sequencing capacity.

Initial focus on the service will be to increase SARS-CoV-2 WGS capacity to approximately 5k samples per week, delivered in 2 NHS Laboratories, from 2 separate Health boards by end of September 2021.

The Service will be delivered through the adoption of automation for key process steps for sample processing as the current WGS laboratory process includes manual steps, and a mixture of systems are used across the 2 sites to document the processing of the samples.

IT systems are in place to facilitate the logistics of submission of samples, and subsequently to manage the raw data outputs for subsequent bioinformatics analysis and ultimate result reporting.

This contract notice is for a sample tracking system to facilitate sample management and tracking within the WGS process only.

The requirement covers the workflow after documented receipt of the sample in the WGS processing laboratories until the point of generation of raw sequencing data.

The automation of the processing of the samples will be delivered by liquid handling systems (which may be from multiple suppliers), these are yet to be configured.

Detailed below is the potential steps (although not exclusive) that we will require data acquisition by the sample tracking system include:

- a) Liquid handler cDNA preparation (automated in 96 well plate, sample and well ID from NPex, plate identifier, time stamp, reagent batches, operators and instruments used).
- b) Liquid handler for PCR amplification (sample/well ID, plate identifier, time stamp, reagent batches, operators and instruments used).
- c) Liquid handler for DNA quantitation (e.g. fluorimeter or bead based quantitation for concentration measurement for each sample recorded in WGS LIMS, and automated

concentration adjustment if not bead based).

d) Possible repeat of steps 3 and 4 above, with new concentration measurements and automated calculation of water quantities added for each well if fluorimeter based).

e) Liquid handler for tagmentation (sample/well ID, plate identifier, time stamp, reagent batches, operators and instruments used).

f) Liquid handler for Library amplification (sample/well ID, plate identifier, assignment of indices, time stamp, reagent batches, operators and instruments used)

g) Liquid handler Library clean up (Beads) sample/well ID, plate identifier, time stamp, reagent batches, operators and instruments used)

h) Liquid liquid handler Library quality check (Bioanalyzer/Tapestation – connected as needs to communicate with WGS LIMS re library quality)

i) Liquid handler Normalise libraries (bead based or fluorimetric quantitation as above)

j) Liquid handler for library pooling.

k) Sample sheet generation for Sequencer

II.3) Estimated date of publication of contract notice

9 July 2021

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

NOTE: To register your interest in this notice and obtain any additional information please visit the Public Contracts Scotland Web Site at

[https://www.publiccontractsscotland.gov.uk/Search/Search_Switch.aspx?ID=655501.](https://www.publiccontractsscotland.gov.uk/Search/Search_Switch.aspx?ID=655501)

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