**NHS England Vaccination and Screening Directorate:**

NHS England is an Arm's Length Body of the Department of Health and Social Care (DHSC). The Vaccination and Screening directorate (V&S) in NHS England exists to deliver vaccination and screening programmes that provide responsive, accessible, convenient and high-quality services to local communities, to deliver maximum levels of uptake and coverage across the whole population and within and between communities, to improve health outcomes, avoid harm, enable earlier diagnosis, intervention and help people to stay well, leaving no-one behind.

What we deliver:

* + Commissioning and operational delivery of s.7a NHS public health services as delegated by the Secretary of State for Immunisation and Screening Programmes and Child Health information Services.
	+ Clear strategy for vaccination and screening that includes standards, guidance, and outcomes to support effective and efficient commissioning and delivery, with maximum uptake.
	+ National design and development of clinical standards, supporting architecture and infrastructure to support safe delivery of all national screening programmes.
	+ National strategies (Immunisations, Screening, CHIS), priorities and standards deployment following decisions from government and JCVI and in collaboration with regions and ICBs.
* Data (including for service delivery) and technology architecture and infrastructure.
* Coordinated supply modelling and logistical expertise and execution.

Screening is a way of identifying healthy people who may have an increased risk of a particular condition. The NHS offers a range of screening tests to different sections of the population. The aim is to offer screening to the people who are most likely to benefit from it. People can then be offered information, further tests, and appropriate treatment to reduce their risk and/or any complications arising from the disease or condition.

This document is related to the **NHS Breast Screening Programme (NHSBSP)** **quality assurance of breast screening medical physics service.**

**NHS Breast Screening Programme**

Breast cancer is one of the most common cancers in the [UK](https://gbr01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdigital.nhs.uk%2Fdata-and-information%2Fpublications%2Fstatistical%2Fcancer-registration-statistics%2Fengland-2021---summary-counts-only%2Fcancer-incidence&data=05%7C02%7Csharon.webb13%40nhs.net%7C69d1cedc1f9e445a68b208dd4545d791%7C37c354b285b047f5b22207b48d774ee3%7C0%7C0%7C638742888447226330%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=D4XBDqKs5vCtxFs%2F3vVngtKuOtZW9TP9BDvGt05qMS0%3D&reserved=0) and is the second highest cause of cancer deaths in [women](https://gbr01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdigital.nhs.uk%2Fdata-and-information%2Fpublications%2Fstatistical%2Fcancer-registration-statistics%2Fengland-2022%2Fcancer-mortality&data=05%7C02%7Csharon.webb13%40nhs.net%7C69d1cedc1f9e445a68b208dd4545d791%7C37c354b285b047f5b22207b48d774ee3%7C0%7C0%7C638742888447264644%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=dZpjNRfFfbnFYNAKmFD0GBe7xWmMsJNp6pEFAqU013s%3D&reserved=0). The UK NHS Breast Screening Programme (NHS BSP) started in the UK in 1988. [Breast screening](https://view-health-screening-recommendations.service.gov.uk/breast-cancer/) is recommended by the UK National Screening Committee (UK NSC).

The intention of the screening programme is to detect breast cancer at an early stage when there is a better chance of successful treatment. There are two screening pathways:

* *NHS routine programme:* in England, women from the age of 50 to their 71st birthday (50-<71), are invited for regular breast screening every 3 years as part of the , with the first invitation offered between their 50th and 53rd birthday (unless they are ceased due to having had bilateral mastectomies or individually opt out of screening or are ceased under a best interest’s decision.) In some circumstances, women outside of this age range are also screened as part of the programme through self-referral, such as women over the age of 71.
* *NHS Targeted Very High Risk (VHR) screening programme-* women identified as being at a very high risk of breast cancer are invited annually. They are deemed eligible via a genetics assessment or a referral from a radiotherapy centre. They are offered breast screening at an earlier age and at different frequencies to women in the general population. In addition to a mammogram, they may have screening using a Magnetic Resonance Imaging (MRI) scanner.

The screening methodology recommended for breast screening is based on evidence that mammograms are the best screening test to find early cancers in women who have no symptoms of breast cancer.

#### **The role of medical physics in the breast screening programme**

Medical physics support has been an essential part of quality assurance (QA) in the breast screening programme since its inception in 1988. All local providers of NHS Breast Screening Programme (BSP) services must contract with medical physics services to conform to [national guidance](https://www.gov.uk/government/publications/breast-screening-quality-assurance-for-medical-physics-services/breast-screening-guidelines-for-medical-physics-services) that sets out the [legal requirements](https://www.gov.uk/government/publications/breast-screening-quality-assurance-for-medical-physics-services/breast-screening-guidelines-for-medical-physics-services#legal-requirements) to help ensure the safety of individuals participating throughout the screening pathway. Employers that work with ionising radiation must comply with two sets of regulations that breast screening services must comply with are:

1. [Ionising Radiation (Medical Exposure) Regulations 2017 (IRMER)](http://www.legislation.gov.uk/uksi/2017/1322/contents/made) regulate medical uses of ionising radiation such as mammography. These regulations require a medical physics expert (MPE) to be appointed to advise on and be involved with aspects such as optimisation of exposure, patient dosimetry, compliance with IRMER, equipment selection and quality assurance testing.
2. [Ionising Radiations Regulations 2017 (IRR)](http://www.legislation.gov.uk/uksi/2017/1075/contents/made) regulate work with ionising radiation with particular focus on matters relating to protection of employees and the public. These regulations require a radiation protection adviser (RPA) to be appointed to advise on specific aspects of radiation protection such as risk assessment and radiation monitoring arrangements.

Medical physics services to the NHS BSP will normally be provided by a team of clinical scientists and technologists. One clinical scientist – the lead physicist – should be managerially and scientifically responsible for, and involved in, the work of the staff providing medical physics services.

The lead physicist for mammography must be a medical physics expert (as defined under IRMER) with experience in mammography.

Areas which require significant input from medical physics services in the NHS BSP include:

* procurement and replacement of imaging equipment
* management of equipment performance and quality control
* introduction of new imaging technologies and techniques
* compliance with radiation regulations.

**Overview of Requirements: NHS Breast Screening Programme (NHSBSP)** **quality assurance of breast screening medical physics service.**

NHS England currently contracts an external organisation to provide scientific and technical advice to the NHSBSP. This contract is currently held by the [National Co-ordinating Centre for the Physics of Mammography](https://medphys.royalsurrey.nhs.uk/nccpm/) (NCCPM). NCCPM is contracted to test new mammographic equipment to ensure that it meets the requirements of the programme and is acceptable for use from a technical perspective. NCCPM also co-ordinates, hosts and analyses the online reporting tool in which breast screening services log equipment faults.

**The service has a critical role in patient safety and is essential for assuring the NHS Breast Screening Programme that new mammography screening equipment complies with the strict medical physics requirements outlined by NHS England, ensuring the equipment meets the necessary sensitivity and specificity standards.**

Medical physics departments which provide services to the NHS BSP should:

* supply key performance indicators (KPIs) and other performance measures as required by NCCPM at the required frequencies to ensure national monitoring of physics data
* participate in dose surveys organised by the NCCPM
* supply reports to include KPIs on request on the performance and state of equipment in breast screening services
* respond to requests relating to queries about their service provision
* participate and respond to any surveys and evaluations organised by NHS England
* network together to share knowledge and experience by actively participating in the regional QA structures such as annual breast imaging physics meetings organised by NHS England and NCCPM

The main requirements of the **NHS Breast Screening Programme (NHSBSP)** **quality assurance of breast screening medical physics service** include delivery of the following:

**Equipment testing:**

* Test new mammographic equipment to ensure that it meets the requirements of the programme and is acceptable for use from a technical perspective.
* Coordination of technical and practical evaluation to assess the use of mammographic equipment in a practical clinical setting. This is required for all new diagnostic equipment prior to approval for market release and use in the English screening programme.
* Produce technical evaluation reports to advise on whether the equipment meets national technical standards for use in the NHS BSP.
* Provide a final practical evaluation reports and support the practical equipment evaluation to be undertaken by a breast screening services.

to ensure advice and guidance is available prior to the process of installation.

* provision of scientific and technical advice to the NHSBSP pertaining to medical physics specifically on the technical standards of performance for mammography equipment and on which equipment can best meet these standards and how it should be used. This ensures the safe adoption of new technology and guards against the introduction of sub-standard systems in the NHSBSP.

**Faults monitoring:**

* the management of information systems and databases that enable monitoring of the performance of the breast imaging equipment used in the NHSBSP, including:
	+ equipment faults database and management of queries co-ordinated, host and analyse the online reporting tool on which breast screening services log equipment faults
	+ meetings with servicing agents and supply companies to discuss and resolve reported faults.
	+ provide summary reports on equipment faults to manufacturers, the screening quality assurance service, and the national breast portfolio team within NHSE to help ensure that equipment is fit for purpose and manufacturers can respond to programme requirements.
	+ produce 6 monthly reviews of equipment and faults in the equipment used in the NHSBSP and submit to NHSBSP to include an executive summary with any action points.
	+ Contact screening services on a frequency no less than bi-monthly to remind services of their obligation to submit equipment faults.
* maintain an electronic database to store performance data from all physics services in the NHSBSP. Data from physics surveys should be accessible to all medical physics providers with the data being used to:
	+ analyse and comment on the measurements made during performance testing of mammography systems.
	+ undertake a dose survey on 2D and tomosynthesis equipment at a frequency of once every 3 years as a minimum. The Supplier must ensure that at least 100 measurements are received from each piece of mammography equipment within every service.
	+ develop functionality within the existing database to record and monitor recommendations made by physics providers within survey reports.
	+ work with NHSE and the medical physics PCAs to develop a system for monitoring completion and uploading of medical physics surveys.

**Stakeholder engagement:**

* organise and chair regular meetings (12 monthly or more frequently if urgent issues arise) with each of the companies supplying the major items of equipment used by the NHSBSP.
* maintain frequent contact and organise formal annual meetings with all manufacturers and suppliers of mammographic equipment approved for use in the breast screening programme to ensure they are kept updated in advance of any hardware or software upgrades to existing models which have been previously approved for use in the NHSBSP.
* active participation in formal national committees and meetings, as well as direct communications with leading radiologists, radiographers and physicists working for the NHSBSP.
* Provide training to medical physics staff on the physics of mammography, safety, and image quality in the NHS BSP.

**Advisory and research:**

* coordination of programmes of research leading to improvements in how breast screening is provided by the NHS.
* ensure that serious incidents relating to equipment will be reported immediately to the NHSBP.
* act as a source of expert advice for NHSBP when appraising the initial incident and help to advise on the possible ramifications for the breast screening programme.

**Qualifications and competencies required:**

* employ medical physicists who can demonstrate in-depth experience in breast screening mammography physics and equipment. They must provide the services of the Medical Physics Expert (MPE) as required under Ionising Radiation Medical Exposure Regulations (IRMER 2017), with specific expertise in the field of mammography physics. The MPE should ideally be a registered clinical scientist with HCPC.
* to achieve and maintain adequate awareness of current technology and techniques, the medical physics service must be able to demonstrate evidence of continuing support for breast imaging equipment and its clinical use. This should include expert knowledge on:
* dose assessments
* liaison with equipment suppliers
* procurement
* optimisation
* incident investigation

**Description of the Engagement**

NHS England is asking potential bidders to complete a market assessment questionnaire to help inform the future commissioning of the service.

The aim of the market engagement exercise is to inform potential providers of the opportunity and to collate feedback. The information will be used to assist NHS England V&S in deciding on the most appropriate approach for the future of the service.

Completed questionnaires must be submitted by 15:00 hours on the 21 March 2025 via the Atamis Tendering system. The RFI questions are provided on page 4,5 and 6 of this document.

Any procurement conducted as a result of this notice will be advertised separately and all suppliers interested will be required to respond to the procurement advertisement once published. This process is not in any way connected to the tendering and evaluation process of any subsequent procurement process and responses to this RFI will not be evaluated or scored or part of any selection process.

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| **Name of your Organisation:** |  |
| **Contact Name(s) and Role(s):** |  |
| **Please state the type of organisation e.g., Public limited Company, Limited Company, Charity, Social Enterprise, NHS organisation, other.** |  |
| **Address:** |  |
| **Telephone Number:** |  |
| **Email Address:** |  |

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| 1.Service model (Clinical and Programme management) |
| * 1. Do you currently provide a similar service?
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| 1.1.1 If yes, please provide details of the service and organisations involved. Please include the number of similar contracts you currently hold and organisations, locations, including annual activity levels if applicable  |
|  |
| 1.2 What are your views on the current service and how do you think this could be improved / developed? |
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| 1.3 How do you envisage the service model working in relation to the clinical and wider programme aspects?  |
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| 1.4 Please explain how the requirements could be met in relation to the sections in the **Overview of Requirements**: |
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| 2. Stakeholders |
| 2.1 Which key stakeholders do you think would be key to the delivery of this service? |
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| --- | --- |
| Organisation Name |  |
| Role |  |
| Function in the delivery of the service |  |

Please repeat as necessary  |

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| 3. Mobilisation  |
| 3.1 Please outline the timescales and elements required in mobilising the service. Some factors to take into consideration are:* Communication and contact with all manufactures of mammographic equipment approved for use
* Monitoring and collation of equipment used in the Breast Screening programme.
* Management of the national collection of equipment faults and communication back to manufacturers
* Employing medical physicists who can demonstrate in-depth experience in breast screening mammography physics and equipment.
* Creating and maintain relationships with the current 77 breast screening services.
* Creating and maintain relationships with the NHSBSP team.
* Managing and acting as a source of expert advice for NHSBP, regarding any serious incidents relating to mammographic equipment.
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| 3.2 What initial resources would need to be considered / required for taking on this this contract? |
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| 4. Service Standards and Key Performance Indicators (KPI’s) |
| 4.1 How do you envisage the screening standards, KPI’s and reporting requirements being met for the service?  |
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| 5. Challenges |
| 5.1 Are there any challenges you would foresee in the development / overall delivery of the service? For example, required timescales, required resource, IT development capability and patient data quality. |
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| 6. Pricing  |
| 6.1 Can you give an indicative range for pricing that would be acceptable to provide this service? Please provide pricing per year (year1&2) |
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| 6.2 Would you be interested in bidding for this service? Please provide any rationale for your response |
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| 7. Other  |
| 7.1 Please provide any feedback or observations you think we should consider as part of the service and future procurement |
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| 7.2 If required, would you be interested in attending a supplier meeting to further explore your response to this RFI? |
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