



## **THE NATIONAL ARCHIVES**

### **PURCHASE OF MACRO X-RAY FLUORESCENCE (MA-XRF) SYSTEM**

#### **INVITATION TO TENDER**

**DEADLINE FOR TENDER SUBMISSIONS - MIDDAY (UK TIME), 03 NOVEMBER 2025**

## **1 ABOUT US**

- 1.1 The National Archives (TNA) is the official archive and publisher for the UK government, and for England and Wales, holding official records containing 1,000 years of history. Our role is to collect and secure the future of the government record, both digital and physical, to preserve it for generations to come, and to make it as accessible and available as possible. We are a non-ministerial department and our parent department is the Department for Culture, Media and Sport. More information on TNA can be found at [www.nationalarchives.gov.uk](http://www.nationalarchives.gov.uk). [Archives for Everyone](#) sets out our plans for the next few years.
- 1.2 TNA holds over 11 million historical and government records, houses approximately 550 staff and currently welcomes approximately 80,000 visitors per year.

## **2 PURPOSE**

2.1 The purpose of this Procurement Exercise is for:

- An energy dispersive X-ray fluorescence spectrometer for reliable non-contact and non-destructive elemental analysis and mapping of heritage materials, with warranty as detailed in Section 3. The system should also function as a hand-held instrument and possess robust imaging capabilities, enabling comprehensive analysis and precise examination of materials.
- The product(s) must come with user friendly software for measurement and data analysis (including all required licences, for up to 5 users) to control the system, to produce and manipulate images, and to analyse the data.

2.2 The Appointed Supplier must also:

- deliver, set up, calibrate and test the system and software;
- provide training to TNA staff in the use of the MA-XRF system and software within 2 months of delivery; and
- provide technical and/or remote support to TNA staff in the use of the MA-XRF and software for at least 5 years after delivery.
- provide software upgrades for at least 3 years after purchase.

### **3 REQUIREMENTS**

- 3.1 TNA has certain mandatory/minimum requirements. It is essential that your proposal fulfils the criteria below:
  - 3.1.1 The MA-XRF system must offer hand-held functionality along with advanced imaging capabilities suitable for archival and library materials analysis.
  - 3.1.2 The XRF must be equipped with a Rhodium (Rh) anode for enhanced accuracy in material analysis.
  - 3.1.3 The MA-XRF system must come with an adjustable trolley/gantry capable of analysing documents of variable shapes and sized, either flat or upright.
  - 3.1.4 The MA-XRF system must be transportable for in-situ or off-site analysis.
  - 3.1.5 The MA-XRF system must come with a 0.5 mm collimator or smaller (0.25 preferable), with easily selectable X-ray filters for versatile analysis.
  - 3.1.6 Detection Range: Comprehensive detectable range from Sodium (Na) to Uranium (U) elements for extensive material characterization.
  - 3.1.7 The system must integrate a video system and lasers for easy and precise sample placement during analysis.
  - 3.1.8 The MA-XRF system and gantry must allow to scan at least 50 x 40 cm areas for comprehensive analysis of larger materials or documents.
  - 3.1.9 The system will come with an intuitive software for data analysis, ensuring ease of operation and efficient interpretation of results.
  - 3.1.10 Essential Accessories: The system must include a powerful dedicated laptop and a durable transport case.
  - 3.1.11 The supplied software will be upgraded as required and free of charge to support any new Windows Operating Systems over a minimum of 5 years after delivery.
  - 3.1.12 The supplier provides training to TNA staff in the use of the equipment and software within 2 months of delivery.
  - 3.1.13 The supplier provides remote support to TNA staff in the use of the equipment and software for at least 5 years after delivery.
  - 3.1.14 The equipment is covered by a 1-year warranty (from date of delivery) during which time any repairs will be made free of charge. Spare parts are guaranteed to be available for repair purposes for a minimum of 5 years after delivery.

## 4 HOW TO RESPOND

4.1 It is for you to determine what format your Tender Response should take so as to describe your offer in a clear, comprehensive fashion. However please ensure your Tender Response includes as a minimum:

4.1.1 a clear demonstration of how your proposed solution meets or exceeds the **criteria** given in Section 3.1.1 to 3.1.11 (a minimum score of 7 is required in this category to be considered for contract award);

4.1.2 your proposals for **training** provision (see Section 3.1.12); and

4.1.3 your **Service Level Agreement** (SLA) for your support services (see Section 3.1.13);

4.1.4 details of your **warranty** (see Section 3.1.14);

4.1.5 a description of how you propose to deliver **environmental benefits** in the performance of this contract, to include collaborative ways of working with the supply chain and working towards net zero greenhouse gas emissions. Please ensure that within this proposal you describe clearly how you will achieve your proposed objectives, plus a description of how – and by when - you will implement your commitments and how you plan to monitor, measure and report on the associated impacts; and

4.1.6 your **contract price**.

**Note:** Your submitted contract price must include any and all duties and levies (except UK VAT, which should be excluded) which may be payable on your proposed solution as submitted. If some or all of your proposed solution includes goods or services which are sourced from outside the UK, you must tell us (a) which goods/services are sourced from outside the UK, (b) the associated commodity code(s), (c) the associated duties and levies payable and (d) confirmation that your contract price includes all such duties and levies (except UK VAT). For the avoidance of doubt, your contract price should reflect the equivalent of Incoterm DDP (Delivery Duty Paid) and therefore the full cost to The National Archives should your bid be successful.

4.1.7 We may require a **demonstration** of your proposed solution (see Section 5.4). Our preference is for demonstrations to take place at TNA's premises in Kew, Richmond, Surrey. If this is not going to be possible, please make clear where a demonstration can take place; reasonable travel by TNA staff at our own expense will be considered.

4.2 If you have any clarification questions related to your Tender Response, please submit these to [procurement@nationalarchives.gov.uk](mailto:procurement@nationalarchives.gov.uk) by **5pm (UK time) on 20 October 2025**.

4.3 Please submit your Tender Response to [procurement@nationalarchives.gov.uk](mailto:procurement@nationalarchives.gov.uk) by **midday (UK time) on 03 November 2025**.

## 5 EVALUATION CRITERIA

5.1 Your Tender Response will be evaluated using the following criteria:

| Category                                                                                                                                                                     | Maximum pre-weighted score | Weighting | Maximum weighted score |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|------------------------|
| <b>Product and system requirements</b><br>(Section 4.1.1)<br><b>NOTE: a minimum pre-weighted score of 7 is required in this category to be considered for contract award</b> | 10                         | 4         | 40                     |
| <b>Training provision</b><br>(Section 4.1.2)                                                                                                                                 | 10                         | 1         | 10                     |
| <b>Service Level Agreement</b><br>(Section 4.1.3)                                                                                                                            | 10                         | 1         | 10                     |
| <b>Warranty</b><br>(Section 4.1.4)                                                                                                                                           | 10                         | 1         | 10                     |
| <b>Environmental benefits</b><br>(Section 4.1.5)                                                                                                                             | 10                         | 1         | 10                     |
| <b>Price</b><br>(Section 4.1.6)                                                                                                                                              | 10                         | 2         | 20                     |

5.2 Price scores will be evaluated as follows:

The bidder submitting the lowest compliant price will be awarded the maximum of 10 (unweighted) points. All other bidders will be awarded a (unweighted) points score by applying the following formula:

$$((\text{lowest submitted price}/\text{bidder's submitted price}) \times 10)$$

To illustrate this via a worked example:

Bidder 1 submits a price of £10,000

Bidder 2 submits a price of £17,000

Bidder 3 submits a price of £31,000

Bidder 1 is awarded 10 (unweighted) points  $-\left((10,000/10,000) \times 10\right) = 10$

Bidder 2 is awarded 5.88 (unweighted) points  $-\left((10,000/17,000) \times 10\right) = 5.88$

Bidder 3 is awarded 3.23 (unweighted) points  $-\left((10,000/31,000) \times 10\right) = 3.23$

5.3 Other categories will be evaluated according to the table below:

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>10<br/>Points</b> | <b>Outstanding:</b> <ul style="list-style-type: none"><li>• Potential Supplier has provided a response that addresses all parts of the requirement</li><li>• Potential Supplier has provided evidence to support all elements of their response</li><li>• The evidence supplied is convincing and highly relevant to the requirement</li><li>• Potential Supplier's response is clear and easy to understand</li><li>• Where relevant, Potential Supplier has demonstrated a high level of capability to deliver new and innovative service approaches</li></ul>                                  |
| <b>7<br/>Points</b>  | <b>Good:</b> <ul style="list-style-type: none"><li>• Potential Supplier has provided a response that addresses all parts of the requirement</li><li>• Potential Supplier has provided evidence to support most elements of their response</li><li>• The evidence supplied is good and relevant to the requirement</li><li>• Potential Supplier's response is clear and easy to understand</li><li>• Where relevant, Potential Supplier has demonstrated some level of capability to deliver new and innovative service approaches</li></ul>                                                       |
| <b>4<br/>Points</b>  | <b>Average:</b> <ul style="list-style-type: none"><li>• Potential Supplier has provided a response that addresses some parts of the requirement</li><li>• Potential Supplier has provided evidence to support some elements of their response, but not all</li><li>• The evidence supplied has some limited relevance to the requirement</li><li>• Potential Supplier's response is not always clear and easy to understand</li><li>• Where relevant, Potential Supplier has demonstrated limited capability to deliver new and innovative service approaches</li></ul>                           |
| <b>1 Point</b>       | <b>Poor:</b> <ul style="list-style-type: none"><li>• Potential Supplier has provided a response that fails to address most parts of the requirement</li><li>• Potential Supplier has provided little or no evidence to support most elements of their response</li><li>• The evidence supplied is very weak and has very limited relevance to the requirement</li><li>• Potential Supplier's response is not always clear and easy to understand</li><li>• Where relevant, Potential Supplier has demonstrated little or no capability to deliver new and innovative service approaches</li></ul> |

5.4 Following evaluation of written submissions, we reserve the right to request demonstration(s) of your proposed solution to ensure it meets our requirements. After demonstration, your submission may be re-scored taking the findings of the demonstration into account.

## 6 PROCUREMENT TIMETABLE

6.1 The procurement timetable is as follows:

| Ref. | Description                                                                                                                                                        | Date                       |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 1    | Invitation to Tender published                                                                                                                                     | 7 October 2025             |
| 2    | Deadline for Potential Suppliers to submit clarification questions to <a href="mailto:procurement@nationalarchives.gov.uk">procurement@nationalarchives.gov.uk</a> | 5pm<br>20 October 2025     |
| 3    | Deadline for TNA to respond to clarification questions*                                                                                                            | 24 October 2025            |
| 4    | Deadline for Potential Suppliers to submit Tender Responses to <a href="mailto:procurement@nationalarchives.gov.uk">procurement@nationalarchives.gov.uk</a>        | Midday<br>03 November 2025 |
| 6    | Timebox for evaluation of Tender Responses, including possible product demonstrations                                                                              | 03 - 07 November 2025      |
| 7    | Notification of contract award decision                                                                                                                            | 07 November 2025           |
| 8    | Standstill period                                                                                                                                                  | (8 working days)           |
| 9    | Contract award confirmation                                                                                                                                        | 20 November 2025           |

\* Any clarification question received that TNA deems to be relevant to more than one Potential Supplier may be shared with all Potential Suppliers.

## **7 CONTRACT TERMS**

- 7.1 The contract will be awarded subject to the terms and conditions published [here](#).
- 7.2 TNA reserves the right not to award and to complete its objectives through other means.