

**Invitation to Tender for**  
A Scanning Electron Microscope with Upgraded EDX  
Analysis Software and Ongoing Support – FLEET/00566

## Contents

This invitation consists of the following documentation:

DEFFORM 47 – Invitation to Tender. The DEFFORM 47 sets out the key requirements that Tenderers need to meet in submitting a valid Tender. It also sets out the conditions relating to this competition. For ease it is broken into:

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## Section A – Introduction

### Definitions

- A1. “The Authority” means the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, (referred to in this document as “the Authority”), acting as part of the Crown.
- A2. “Tenderer” means the economic operator or group of operators in the form of a consortium, including sub-contractors, which has been invited to submit a response to this Invitation to Tender. Where “you” is used this means an action on you the Tenderer.
- A3. “Invitation to Tender” (ITT) refers to the first document that the Authority sends out to potential Tenderers that initiates a tender response, competitive dialogue or negotiation.
- A4. A “Tender” is the offer that you are making to the Authority.
- A5. “Contractor Deliverables” means the works, goods and / or the services, including packaging (and Certificates(s) of Conformity supplied in accordance with any Quality Assurance (QA) requirements if specified) and any associated technical data which the Contractor is required to provide under the contract in accordance with the Schedule of Requirements, but excluding incidentals outside the Schedule of Requirements such as progress reports.
- A6. “Schedule of Requirements” Schedule 2 means that part of the contract which identifies, either directly or by reference, the Contractor Deliverables to be supplied or carried out, the quantities involved and the price or pricing terms in relation to each Contractor Deliverable.
- A7. The “Statement of Requirement” Schedule 5 details the technical requirements and acceptance criteria of the Contractor Deliverables. The Statement of Requirement is attached to this DEFFORM 47. This may include the System Requirements Document (SRD).
- A8. “Conditions of Tendering” means the conditions set out in the DEFFORM 47 that govern the competition.
- A9. “Contract Conditions” means the attached conditions that will govern any resultant contract.
- A10. A “Third Party” is any person who is not an employee of the Tenderer as defined at A2.

### Purpose

- A11. The purpose of this ITT is to invite you to propose a solution / best price to meet the Authority’s requirement. This documentation explains and sets out the:
- a. tender process and timetable for the next stages of the procurement;
  - b. instructions and conditions that govern this competition;
  - c. information you must include in your Tender and the required format;
  - d. administrative arrangements for the receipt and evaluation of Tenders; and
  - e. Contract Conditions that shall apply in the event that the Authority awards a contract following this competition.
- A12. The sections in this ITT and associated documents are structured in line with a generic tendering process and do not indicate importance / precedence.
- A13. This ITT has been issued to all potential Tenderers that expressed an interest.
- A14. The requirement was advertised by the Authority in Defence Contracts Online (DCO) / Contracts Finder dated 26 January 2017 with reference to the requirement for the *“Purchase of Scanning Electron Microscope with Upgraded EDX Analysis Software and Ongoing Support”* following the Open Procedure under the Public Contract Regulations 2015.

### ITT Documentation and ITT Material

- A15. ITT Documentation means any information in any medium or form (for example drawings, handbooks, manuals, instructions, specifications and notes of pre-tender clarification meetings), issued to you, or to which you have been granted access, by the Authority for the purposes of

responding to this ITT. ITT Material means any other material (including patterns and samples), equipment or software issued to you, or to which you have been granted access, by the Authority for the purposes of responding to this ITT. ITT Documentation, ITT Material and any intellectual property rights (IPR) in them shall remain the property of the Authority or other Third Party owners and is released solely for the purposes of enabling you to submit a Tender. You must:

- a. take responsibility for the safe custody of the ITT Documentation and ITT Material and for all loss and damage sustained to it while in your care;
- b. not copy or disclose the ITT Documentation or any part of it to anyone other than the bid team involved in preparing your Tender, and not use it except for the purpose of responding to this ITT;
- c. seek written approval from the Authority if you need to provide access to any ITT Documentation or ITT Material to any Third Party;
- d. abide by any reasonable conditions imposed by the Authority in giving its approval under sub-paragraph A15.c, which at a minimum will require you to ensure any disclosure to a Third Party is made by you in confidence. Alternatively, due to IPR issues for example, the disclosure may be made, in confidence, directly by the Authority;
- e. accept that any further disclosure of ITT Documentation,(or use beyond the original purpose), or further use of ITT Documentation or ITT Material, without the Authority's written approval may make you liable for a claim for breach of confidence and / or infringement of IPR, a remedy which may involve a claim for compensation;
- f. inform the Commercial Team if you decide not to submit a Tender;
- g. immediately return all ITT documentation, ITT Material and derived information of an unmarked nature, should you decide not to respond to this ITT, or you are notified by the Authority that your Tender has been unsuccessful; and
- h. consult the named Commercial Officer to agree the appropriate destruction process if you are in receipt of ITT Documentation and ITT Material marked 'OFFICIAL-SENSITIVE' or 'SECRET'.

A16. Some or all of the ITT Documentation and ITT Material may be subject to one or more confidentiality agreements made between you and either the Authority or a Third Party, for example a confidentiality agreement established in the form of DEFFORM 94. The obligations contained in any such agreement will be in addition to, and not derogate from, your obligations under paragraph A15 above.

### **Tender Expenses**

A17. You will bear all costs associated with preparing and submitting your Tender. If the Tender process is terminated or amended by the Authority, the Authority will not reimburse you.

Note: The MOD is changing to an electronic end to end procurement system. Any conditions relating to the payment process may be amended between the issue of this ITT and contract award. Any change will solely be for the purpose of ensuring payment is made.

### **Material Change of Control from Supplier Selection**

A18. You must inform the Authority in writing if there is any material change in control, composition or membership of your organisation and / or consortium members, including any sub-contractors at any time during the procurement process. This may affect your right to stay in the competition.

### **Contract Conditions**

A19. Standardised Contracting (SC1B) Conditions are attached. Only the conditions 19, 20 and 21 are negotiable.

Note: The MOD is changing to an electronic end to end procurement system. Any conditions relating to the payment process may be amended between the issue of this ITT and contract award. Any change will solely be for the purpose of ensuring payment is made.

**Consultation with Credit Reference Agencies**

A20. The Authority may consult with credit reference agencies to assess your creditworthiness. This information may be used to support and influence decisions to enter into a contract with you.

**Other Information**

A21. The Tenderers' attention is drawn to the following other information: N/A

## Section B – Key Tendering Activities

The key dates for this procurement are currently anticipated to be as follows:

Stage	Date and Time	Initiated By	Submit to:
Invitation to Bidders Conference <sup>1</sup>	Not Used	N/A	N/A
Date for Confirmation of attendance at Bidders Conference <sup>1</sup>	Not Used	N/A	N/A
Final date for Clarification Questions / Requests for additional information	17:00 on Monday 17 April 2017	Tenderers	The Commercial Officer stated in Appendix 1 to Schedule 3 and <a href="mailto:DefComrcIDCGP-16-25@mod.uk">DefComrcIDCGP-16-25@mod.uk</a>
Final Date for Requests for Extension <sup>2</sup>	17:00 on Monday 17 April 2017	Tenderers	The Commercial Officer stated in Appendix 1 to Schedule 3 and <a href="mailto:DefComrcIDCGP-16-25@mod.uk">DefComrcIDCGP-16-25@mod.uk</a>
The Authority issues Final Clarification Answers	17:00 on Friday 21 April 2017	The Authority	All Tenderers <sup>3</sup>
Tender Return	10.00 on Monday 1 May 2017	Tenderers	The Tender Board using DEFFORM 28
Tender Evaluation	Monday 1 May 2017	The Authority	N/A
Negotiations <sup>4</sup>	Not Used	N/A	N/A
Reverse Auction	Not Used	N/A	N/A
Trials / Testing	Not Used	N/A	N/A

### Notes

1. A Bidders Conference is where the Authority presents the requirement to all Tenderers at the same time. A copy of the presentation will be issued to all Tenderers regardless of attendance. It gives you an opportunity to ask questions about the requirement. The Tenderer must provide the name(s) of those attending the Bidders Conference to the above named contact, by the date shown, so that access to the site can be arranged.
2. The Tenderer must make requests for an extension in writing (email is sufficient) to the above named contact, by the date and time shown. Any extension is at the sole discretion of the Authority and if granted will be granted to all Tenderers.
3. The Authority will automatically copy questions and answers to all Tenderers, removing the names of those who have raised the questions. If you do not want your question disclosed you must inform the Authority of this and the reason why when submitting the question. The Authority may choose to discuss with you whether it is appropriate to disclose the question or response, or both, to other Tenderers. If the Authority decides to disclose, you will be given the opportunity to withdraw your question. Where a question reveals a piece of information that could significantly impact the Tenderers responses this may result in an extension of the Tender return date. The Authority will endeavour to ensure that you have at least 10 working days to submit your Tender.
4. Negotiations are only permitted under the Negotiated procedures.

## **Section C - Instructions on Preparing Tenders**

### **Tenders for Selected Contractor Deliverables**

C1. You must Tender for all the Contractor Deliverables listed in the attached Schedule of Requirements. The Authority reserves the right to reject your Tender where you have not tendered for all of the Contractor Deliverables.

### **Construction of Tenders**

C2. Your Tender must be written in English, using Arial font size 11. Prices must be in £GBP. Prices must be Firm Price.

C3. To assist the Authority's evaluation please set out your Tender response in accordance with Section D (Tender Evaluation).

### **Validity**

C4. In accordance with F3 your Tender must be valid / open for acceptance for ninety (90) calendar days from the Tender return date. If successful, your Tender must be open for acceptance for a further thirty (30) calendar days.

### **Variant Bids**

C5. Any Tender made subject to additional or alternative Contract Conditions alone is not a variant bid. Where the tender evaluation has a pass / fail for the Contract Conditions the Authority may reject the Tender on the grounds of such additional or alternative Contract Conditions.

C6. The Authority cannot evaluate any Variant Bids during this competition.

## Section D – Tender Evaluation

This section details how your Tender will be evaluated, the tools used to evaluate the Tender and the evaluation criteria.

**The Tender Evaluation will be on the basis of: Most Economically Advantageous Tender (MEAT).**

This Tender will be evaluated using the MEAT method. This is a comparative score and the scoring method is worked out using the ratio and calculation below. The optimum is the highest technical score and lowest price, this together would get the highest total score. If you had the highest technical score but your price was double than that of the lowest priced compliant Tender, this would receive a lower total score.

MEAT Ratio: 70:30 (Technical:Price)

To give a total score the following calculation shall be used:

The evaluation is out of 100 (as this represents 100% of the total score) and the split is 70/30 technical/pricing. A score of 70 is allocated to the best technically compliant tender and the technical scores of the other tenders are calculated using a percentage (%) difference method. A score of 30 is allocated to the lowest price and a score is calculated for the price on the remaining tenders using a percentage (%) difference method.

<b>Mandatory Criteria:</b>		
Full completion of the table in DEFFORM 47 Annex A (Offer) (See section F, paragraph 19)		Pass / Fail
Failure to meet the Mandatory Criteria will result in your Tender being non-compliant and the rejection of your Tender.		
<b>Criterion Scores*:</b>		
Each individual criterion in Schedule 6 – Technical Evaluation Questions will be evaluated against the following scoring mechanism.		
0	Not Answered	Nil or inadequate response. Fails to demonstrate an ability to meet the requirement.
1	Poor	The response addresses some of the elements of the requirement but does not fully detail or explain how the requirement will be fulfilled.
2	Partially Acceptable	The response addresses half of the elements of the requirement but contains insufficient/ limited detail or explanation of how the requirement will be fulfilled.
3	Acceptable	The response addresses the majority of the elements of the requirement but does not fully detail or explain how the requirement will be fulfilled.
4	Good	The response is sufficiently detailed and demonstrates a good understanding and provides details of how the requirement will be fulfilled.
5	Excellent	The response is comprehensive, unambiguous and demonstrates a thorough understanding of the requirement and provides details of how the requirement will be met in full.

\*Where the Tender Evaluation is made on the basis of MEAT the attached Evaluation Criteria in Schedule 6 – Technical Evaluation Questions shall be scored using the Criterion Scores in the above table. Where an alternative Marking Scheme is attached, it takes precedence over the above.

In the event of two or more Tenders being awarded the same total the Authority shall choose the Tender with the Lowest Price.



## **Section E – Instructions on Submitting Tenders**

### **Submission of your Tender**

- E1. Tenders must be sent to the Tender Board by the date and time stated in the covering letter to this DEFFORM 47. The Authority reserve the right to reject any Tender received after the stated date and time. You must provide 1 paper copy unpriced and 1 paper copy priced of your Tender and 2 copies of supporting documents. You must not email electronic copies until after the Tender Board has taken place. If you email your Tender before the Tender Board date, your Tender may be excluded from the competition.
- E2. You must complete and include DEFFORM 47 Annex A (Offer) with your Tender. Where you select 'Yes' to any questions you must attach the relevant information.
- E3. You must include the original signed DEFFORM 47 Annex A (Offer) with one paper copy of your Priced Tender.
- E4. You must submit your paper and CD copies in a sealed envelope or box. For health and safety reasons, no individual envelope or box should weigh more than 11 kilos.
- E5. You must attach the enclosed Tender Return Label (DEFFORM 28) to the outer packaging of each envelope or box that contains your Tender.
- E6. If you intend to hand deliver your Tender you must inform the named Commercial Officer of your intention and seek further delivery instructions. Failure to do so may result in your Tender being refused and / or returned.
- E7. You must ensure you include all relevant information in your Tender. The Authority can only evaluate information that you include in your Tender.

### **Samples**

- E8. Samples are not required.
- E9. You should send any samples to the named Commercial Officer after the Tender return date.
- E10. The Authority may retain all samples for twelve (12) months from the Tender return date. After this period, the Authority will destroy the samples unless you specifically state you require their return. The Authority may keep samples associated with a successful Tender indefinitely.
- E11. Samples that are consumed will not be returned.

## Section F – Conditions of Tendering

F1. The issue of ITT Documentation or ITT Material is not a commitment by the Authority to place a contract as a result of this competition or at a later stage. Any expenditure, work or effort undertaken prior to an offer of contract and acceptance of that, is a matter solely for your commercial judgement. The Authority reserves the right to:

- a. seek clarification or additional documents in respect of a Tenderer's submission;
- b. visit your site;
- c. disqualify any Tenderer that does not submit a compliant Tender in accordance with the instructions in this ITT;
- d. disqualify any Tenderer that is guilty of misrepresentation in relation to its Tender, expression of interest, the dynamic Pre-Qualification Questionnaire (PQQ) or the tender process;
- e. re-assess your suitability to remain in the competition, for example where there is a material change of control from supplier selection;
- f. withdraw this ITT at any time, or to re-invite Tenders on the same or any alternative basis;
- g. re-issue this ITT on a single source basis, in the event that this procurement does not result in a 'competitive process' as defined in the Single Source Contract Regulations 2014, making such adjustments as would be required by the application of the Defence Reform Act 2014 and / or Single Source Contract Regulations 2014;
- h. choose not to award any contract as a result of the current procurement process;
- i. award a Contract for some of the Contractor Deliverables, unless you specifically oppose this in your Tender or state any minimum order quantities; and/or
- j. ask for an explanation of the costs or price proposed in the tender where the tender appears to be abnormally low.

F2. The contract will be entered into when the Authority sends written notification of its entry into the contract, via a DEFFORM 159. Written notification will be issued, to the address you provide, on or before the expiration of the period specified in paragraph C4 and subject to paragraph F3.

F3. It is a Condition of Tendering that the winning Tenderer holds their Tender open for acceptance for the period stated in C4. This period starts on the day the Authority announces its decision to award the contract to the winning Tenderer in accordance with the Tender. In the event that legal proceedings challenging the award of the contract are instigated, prior to entry into contract, it is a condition of this ITT that you hold your Tender open for acceptance during this period, and up to fourteen (14) days after the result of the legal proceedings. In the event of such legal challenge, the Authority agrees to use all reasonable measures to accelerate proceedings.

### Conforming to the Law

F4. You must comply with the UK Competition Act 1998, the UK Bribery Act 2010, applicable EU and UK legislation and any equivalent legislation in a third state.

F5. Your attention is drawn in particular to legislation relating to the canvassing of a public official, collusive behaviour and bribery. If you act in breach of this legislation then your Tender may be disqualified from this procurement. Disqualification will be without prejudice to any civil remedy available to the Authority or any criminal liability that your conduct may attract.

### Bid Rigging and Other Illegal Practices

F6. You must report any bid rigging, fraud, bribery, corruption, or any other dishonest irregularity in connection to this tendering exercise to:

Defence Regulatory Reporting Cell Hotline

0800 161 3665 (UK) or  
+44 1371 85 4881 (Overseas)

## **Conflicts of Interest**

F7. You must notify the Authority immediately of any Conflicts of Interest (COI) that have arisen or that arise at any point prior to contract award decision.

F8. Where there is an existing or potential Conflict of Interest (COI) you must include a proposed Compliance Regime in your Tender. As a minimum this must include:

- a. manner of operation and management;
- b. roles and responsibilities;
- c. standards for integrity and fair dealing;
- d. levels of access to and protection of competitors sensitive information and Government Furnished Information;
- e. confidentiality / non-disclosure agreements (e.g. DEFFORM 702);
- f. the Authority's rights of audit; and
- g. physical and managerial separation.

Should your Tender be accepted your proposed Compliance Regime will become part of the Contract Conditions and shall be legally binding.

## **Government Furnished Assets**

F9. Where the Authority provides Government Furnished Assets (GFA) in support of this competition, you must include details of the GFA in your Public Store Account and treat it in accordance with Def Stan 05-099. If unsuccessful in this competition, you must seek instructions for that GFA from the named Commercial Officer.

## **Standstill Period**

F10. The Authority is obliged under certain circumstances to allow a space of ten (10) calendar days between the date of dispatch of its notice to Tenderers before entering into a contract, known as the standstill period. This period is to give unsuccessful Tenderers an opportunity to make a legal challenge before the contract is entered into if there has been, or it is alleged that there has been, a breach of the Regulations. The standstill period ends at midnight at the end of the 10th day after the date the DEFFORM 158 is sent. Where this is not a working day it extends to midnight at the end of the next working day.

## **Publicity Announcement**

F11. The Authority will publish notification of the contract and shall publish contract documents under the FOI Act except where publishing such information would hinder law enforcement; would otherwise be contrary to the public interest; would prejudice the legitimate commercial interest of any person, or might prejudice fair competition between suppliers. You should complete and return DEFFORM 539A as explained in the DEFFORM 47 Annex A and associated Appendix 1.

F12. If you wish to make a similar announcement, you must seek approval from the named Commercial Officer.

F13. Under no circumstances should you confirm to any Third Party the Authority's acceptance of an offer of contract prior to either informing the Authority of your acceptance or the Authority's announcement of the award of contract, whichever occurs first.

## **Sensitive Information**

F14. All Central Government Departments and their Executive Agencies and Non Departmental Public Bodies are subject to control and reporting within Government. In particular, they report to the Cabinet Office and HM Treasury for all expenditure. Further, the Cabinet Office has a cross-governmental role delivering overall Government policy on public procurement, including ensuring

value for money, related aspects of good procurement practice and answering Freedom of Information requests.

F15. For these purposes, the Authority may share within Government any of the Contractor's documentation / information (including any that the Contractor considers to be confidential and/or commercially sensitive such as specific bid information) submitted by the Contractor to the Authority during this Procurement. Contractors taking part in this competition must identify any sensitive material in the DEFFORM 539A (or SC1B Schedule 4, SC2 Schedule 9, or SC3 Schedule 6) and consent to these terms as part of the competition process. This allows the MOD to share information with other Government departments whilst complying with our obligations to maintain confidentiality.

F16. The Authority reserves the right to disclose on a confidential basis any information it receives from Tenderers during the procurement process (including information identified by the Tenderer as Commercially Sensitive Information in accordance with the provisions of this ITT/ITN) to any third party engaged by the Authority for the specific purpose of evaluating or assisting the Authority in the evaluation of the Tenderer's Tender. In providing such information the Tenderer consents to such disclosure.

## **Remedies for Breach of Contract**

F17. You should be aware of the contractual remedies set out in the Contract Conditions. Damages for breach of contract are not limited under the contract. However, you should also note that in exercising its rights and remedies under the contract the Authority must act in a reasonable and proportionate manner having due regard to the nature and consequences of the breach of contract. If you are unsure about the potential liability under the contract, you should seek advice from the named Commercial Officer.

## **Reportable Requirements**

F18. Listed in the DEFFORM 47 Annex A (Offer) are the Mandatory Declarations. It is a Condition of Tendering that you complete and attach these returns listed in the Annex and, where you select yes, you attach the relevant information.

F19. Failure to complete this part of the Annex in full makes your Tender non-compliant. Additional information provided in response to Appendix 1 may be used to support the Authority's evaluation of your tender, as detailed in Section D.

F20. If you are an overseas Contractor and your Tender is successful you will be required to provide the name and address of your banker and the relevant bank account number on contract award.

## Ministry of Defence

Tender Ref No. FLEET/00566

## Tender Submission Document (Offer)

To the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland (hereafter called "the Authority")

The undersigned Tenderer, having read the ITT Documentation, offers to supply the Contractor Deliverables at the stated price(s), in accordance with any referenced drawings and / or specifications, subject to the Conditions of Tendering. It is agreed that only the Contract Conditions or any amendments issued by the Authority shall apply.

<b>Applicable Law</b>				
I agree that any contract resulting from this competition shall be subject to English Law *Where 'No' is selected, Scots Law will apply.				Yes / No*
<b>Total Value of Tender (excluding VAT)</b>				
£ .....				
WORDS .....				
<b>UK Value Added Tax</b>				
If registered for Value Added Tax purposes, please insert:				
a. Registration No .....				
b. Total amount of Value Added Tax payable on this Tender (at current rate(s)) £.....				
<b>Location of work (town / city) where contract will be performed by Prime:</b>				
Where items which are subject of your Tender are not supplied or provided by you, state location in town / city to be performed column (continue on another page if required)				
Tier 1 Sub-contractor Company Name	Town / city to be performed	Contractor Deliverables	Estimated Value	SME Yes / No
<b>Mandatory Declarations</b> (further details are contained in Appendix 1 to DEFFORM 47 Annex A (Offer)):			<b>Tenderer's Declaration</b>	
Is the offer subject to the Authority contracting for all the Contractor Deliverables?			Yes* / No	
Is the offer made subject to a Minimum Order Quantity?			Yes* / No	
Are the Contractor Deliverables subject to IPR that has been exclusively or part funded by Private Venture, Foreign Investment or otherwise than by the Authority funding?			Yes* / No	
Are the Contractor Deliverables subject to Foreign Export Control and Security Restrictions?			Yes* / No	
Have you obtained foreign export approval necessary to secure IP user rights for the Authority in Contract Deliverables, including technical data, as determined in the Contract Conditions?			Yes / No	
Have you complied with all regulations relating to the operation of the collection of custom import duties?			Yes / No	
Have you completed Form 1686 for sub-contracts?			Yes / No	
Have you completed the compliance matrix/matrices?			Yes / No / Not Required	
Are you a Small Medium Enterprise (SME)?			Yes / No	

Have you and your sub-contractors registered with the Prompt Payment Code with regards to SMEs?	Yes / No
Have you completed and attached Tenderer's Commercially Sensitive Information Form (DEFFORM 539A)?	Yes / No
If you have not previously submitted a Statement Relating to Good Standing, or circumstances have changed have you attached a revised version?	Yes* / No / N/A
Do the Contractor Deliverables contain Asbestos, as defined by the control of Asbestos Regulations 2012?	Yes* / No
Have you completed and attached a DEFFORM 68 – Hazardous Articles, Deliverables materials or substances statement?	Yes* / No
Do the Contractor Deliverables (including Packaging) use Substances that deplete the Ozone Layer, as defined in Regulation (EC) 1005/2009 (as amended by EC 744/2010) of the European Parliament and of the Council? <a href="http://ozone.unep.org/en/treaties-and-decisions/montreal-protocol-substances-deplete-ozone-layer">http://ozone.unep.org/en/treaties-and-decisions/montreal-protocol-substances-deplete-ozone-layer</a>	Yes* / No
Have you attached The Bank/Parent Company Guarantee?	Yes* / No / Not Required
Have you complied with the requirements of the Military Aviation Authority Regulatory Articles?	Yes / No / Not Required
Have you completed the additional Mandatory Requirements?	Yes / No / Not Required
*If selecting Yes to any of the above questions, please attach the information detailed in Appendix 1 to DEFFORM 47 Annex A (Offer).	
<b>Tenderer's Declaration of Compliance with Competition Law</b>	
<p>We certify that the offer made is intended to be genuinely competitive. No aspect of the price has been fixed or adjusted by any arrangement with any Third Party. Arrangement in this context includes any transaction, or agreement, private or open, or collusion, formal or informal, and whether or not legally binding. In particular:</p> <ul style="list-style-type: none"> <li>a. the offered price has not been divulged to any Third Party,</li> <li>b. no arrangement has been made with any Third Party that they should refrain from tendering,</li> <li>c. no arrangement with any Third Party has been made to the effect that we will refrain from bidding on a future occasion,</li> <li>d. no discussion with any Third Party has taken place concerning the details of either's proposed price, and</li> <li>e. no arrangement has been made with any Third Party otherwise to limit genuine competition.</li> </ul> <p>We understand that any instances of illegal cartels or market sharing arrangements, or other anti-competitive practices, suspected by the Authority will be referred to the Competition and Markets Authority for investigation and may be subject to action under the Competition Act 1998 and the Enterprise Act 2002.</p> <p>We understand that any misrepresentations may also be the subject of criminal investigation or used as the basis for civil action.</p> <p>We agree that the Authority may share the Contractor's information / documentation (submitted to the Authority during this procurement) more widely within Government for the purpose of ensuring effective cross-Government procurement processes, including value for money and related purposes. We certify that we have identified any sensitive material in DEFFORM 539A.</p>	
<b>Dated this ..... day of ..... Year .....</b>	
<b>Signature:</b>  (Must be original)	<b>In the capacity of</b> ..... (State official position e.g. Director, Manager, Secretary etc.)
<b>Name:</b> (in BLOCK CAPITALS)  <b>duly authorised to sign this Tender for and on behalf of:</b>  (Tenderer's Name)	<b>Postal Address:</b>  <b>Telephone No:</b> <b>Registered Company Number:</b> <b>Dunn And Bradstreet Number:</b>

## **Information on Mandatory Declarations**

### **Part Tender**

1. Under Condition of Tendering F1, the Authority reserves the right to order some or part of your Tender. If your offer is subject to the Authority contracting for all the Contractor Deliverables select 'Yes' and provide further details in your Tender.

### **Minimum Order Quantities**

2. Where your offer is subject to minimum order quantities select 'Yes' and provide further details in your Tender.

### **IPR - Restrictions**

3. Where the Contractor Deliverables are subject to IPR that has been exclusively or part funded by private venture, foreign investment or otherwise than by Authority funding you must select 'Yes' in Annex A (Are the Contractor Deliverables subject to IPR that has been exclusively or part funded by Private Venture, Foreign Investment or otherwise than by Authority funding).

4. Furthermore if you have answered 'Yes' in Annex A (Offer) as directed by para 3 above, you must clearly state in your Tender any Contractor Deliverable to be produced under any resultant contract that is, or is likely to be, the subject to any IPR restrictions, (or anything of this nature including export restrictions in provision to the Authority or resulting in the Authority receiving limited use or disclosure rights) either yourself or a Third Party. You must particularly draw attention to:

- a. Any restriction of, provisions to the Authority, disclosure or use by the Authority, or obligation to make payments, in respect of any intellectual property (including technical information) required for the purpose of any resultant contract or any subsequent use of any Contractor Deliverable by the Authority. Any Patent or Registered Design (or application for either) or unregistered design right owned or controlled by you or a Third Party which is or appears to be relevant to the Contractor Deliverables, the use of which by or on behalf of the Authority may give rise to a claim under Sections 55 or 56 of the Patents Act 1977, or Section 12 of the Registered Designs Act 1949, or Section 240 of the Copyright, Designs and Patents Act 1988;
- b. any allegation made against you, whether by claim or otherwise, of an infringement of an intellectual property right (whether a Patent, Registered Design, unregistered design right, copyright or otherwise) or of a breach of confidence, which relates to the performance of any resultant contract or subsequent use by or for the Authority of any Contractor Deliverables;
- c. the nature of any allegation referred to under sub-paragraph 4.b., including any obligation to make payments in respect of the intellectual property right any confidential information and / or;
- d. any action you need to take or the Authority is required to take to deal with the consequences of any allegation referred to under sub-paragraph 4.b.

5. You must, when requested, give the Authority details of every restriction and obligation referred to in paragraph 4. The Authority will not acknowledge any such restriction unless so notified under paragraph 4 or as otherwise agreed under any subsequent Contract. You must also provide, on request, any information required for authorisation to be given under Section 2 of the Defence Contracts Act 1958.

6. If you have previously provided information under paragraphs 4 and 5 you can provide details of the previous notification, updated as necessary to confirm their validity.

## **Notification of Foreign Export Control Restrictions**

7. In respect of any Contractor Deliverables, likely to be required for the performance of any resultant contract, you must provide the following information in your Tender:

- a. Whether all or part of any Contractor Deliverables are or will be subject to:
  - (1) a non-UK export licence, authorisation or exemption; or
  - (2) any other related transfer control that restricts or will restrict end use, end user, re-transfer or disclosure.
- b. If requested, a summary of every existing expected or known licence and restriction referred to in paragraph 7.a. This includes any related obligation or restriction and the extent they place an obligation or restriction on the Authority, including:
  - (1) the exporting nation and the export licence number, where known;
  - (2) the Contractor Deliverables affected;
  - (3) the nature of the restriction and obligation;
  - (4) the authorised end use and end users;
  - (5) any specific restrictions on access by Third Parties, or by individuals based on their nationality, to the Contractor Deliverables; and
  - (6) any specific restrictions on re-transfer or re-export to Third Parties of the Contractor Deliverables of anything delivered or used in the performance or fulfilment of them.
- c. If requested, you must provide an outline of your mitigation plan to manage performance risks on any resultant contract based on paragraph 7.a.

8. You must use reasonable endeavours to obtain sufficient information from your potential supply chain to enable a full response to paragraphs 7.a and 7.b. If you are unable to obtain adequate information, you must state this in your Tender when responding to paragraph 7.a and 7.b.

9. If you become aware at any time during the competition that all or part of any proposed Contractor Deliverable is likely to become subject to a non-UK Government Control through a Government-to-Government sale only, you must inform the Authority immediately.

10. If you have previously provided information under paragraph 7 you can provide details of the previous notification and confirm the validity.

11. This does not include any Intellectual Property specific restrictions mentioned in paragraph 4.

12. It is the Winning Tenderer(s) responsibility to ensure they comply with any restrictions stated in paragraph 7 during the life of the contract. This includes any restrictions the Authority has explicitly stated / clarified in any ITT documentation.

13. You must notify the named Commercial Officer immediately if you are unable for whatever reason to abide by any restriction of the type referred to in paragraph 7.

## **Overseas Expenditure**

14. You must provide details in your Tender of any expenditure outside the UK, including:

- a. country in which sub-contract is placed / to be placed;
- b. name, division and full postal address of sub-contractor;
- c. value of sub-contract; and
- d. date sub-contract placed / to be placed.

15. Should you propose the supply of Articles of US origin the export of which from the USA are subject to control under the US International Traffic in Arms Regulations (ITAR), you must include details in your Tender. This will allow the Authority to make a decision whether the export can or



cannot be made under the auspices of the US-UK Defense Trade Co-operation Treaty. The Authority shall then convey its decision to the Tenderer. If the Authority decides that use of the Treaty for the export is permissible, it is your responsibility to make a final decision whether you want to use that route for the export concerned if you are awarded the contract.

## **Import Duty**

16. European Union (EU) legislation permits the use of various procedures to suspend customs duties.

17. For the purpose of this competition, for any deliverables not yet imported into the EU, you are required to provide details of your plans to address customs compliance, including the procedures to be applied and the estimated Import Duty to be incurred and / or suspended.

18. You should note that it is your responsibility to ensure compliance with all regulations relating to the operation of the accounting for import duties. This includes but is not limited to obtaining the appropriate Her Majesty's Revenue and Customs (HMRC) authorisations.

## **Sub-contracts Form 1686**

19. Form 1686 (also known as Appendix 5) is to be used in all circumstances where contractors wish to place a sub-contract with a contractor where the release of OFFICIAL-SENSITIVE information is involved. The process will require submission of the single page document either directly to the MOD Project Team or, where specified, to the DE&S Security Advice Centre. You can find further information in the [Security Policy Framework – Contractual Process](#) chapter. You can access a word version of Form 1686 on GOV.UK at:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/367494/Contractual\\_Process\\_-\\_Appendix\\_5\\_form.doc](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/367494/Contractual_Process_-_Appendix_5_form.doc)

## **Small and Medium Enterprises**

20. The Authority is committed to supporting the Government's small and medium-sized enterprise (SME) initiative; its ambitious target is that £1 in every £3 that the Government spends should be with small businesses by 2020. Our goal is that 25% of Authority spending should be spent with SMEs by 2020; this applies to the money which the Authority spends directly with SMEs, and through the supply chain. The Authority uses the [European Commission definition of SME](#).

21. A key aspect of the Government's SME Policy is ensuring that its suppliers throughout the supply chain are paid promptly. All suppliers to the Authority and their subcontractors are encouraged to make their own commitment and register with the Prompt Payment Code at: <http://www.promptpaymentcode.org.uk>.

22. Suppliers are also encouraged to work with the Authority to support the Authority's SME initiative. The link below to the Gov.uk website provides information on the Authority's purchasing arrangements, our commercial policies and our SME policy.

<https://www.gov.uk/government/organisations/ministry-of-defence/about/procurement>.

23. The opportunity also exists for Tenderers to advertise any sub-contract valued at over £10,000 in the MOD Contracts Bulletin and further details can be obtained directly from:

BiP Solutions Ltd

Web address: [www.contracts.mod.uk](http://www.contracts.mod.uk)

Tel No: 0845 270 7099

## **Transparency, Freedom of Information and Environmental Information Regulations**

24. You should be aware that the contents of any resultant contract may be published in line with government policy set out in the Prime Minister's letter of May 2010

(<https://www.gov.uk/government/policies/government-transparency-and-accountability>) and the information contained within DEFCON539SC1B Conditions of Contract Clause 5.

25. Before publishing the contract, the Authority will redact any information which is exempt from disclosure under the Freedom of Information Act 2000 ("the FOIA") or the Environmental Information Regulations 2002 ("the EIR").

26. You should complete the attached Tenderer's Commercially Sensitive Information Form DEFCON539 (DEFFORM 539A), explaining which parts of your Tender you consider are commercially sensitive. This includes providing a named individual who may be contacted with regard to FOIA and EIR.

27. You should note that, while your views will be taken into consideration, the ultimate decision whether to publish or disclose information lies with the Authority. You are advised to provide as much detail as possible on the form. It is highly unlikely that a Tender will be exempt from disclosure in its entirety. Should the Authority decide to publish or disclose information against your wishes, you will be given prior notification.

## **Electronic Purchasing**

28. Tenderers must note that use of the Contracting, Purchasing and Finance (CP&F) electronic procurement tool is a mandatory requirement for any resultant contract awarded following this tender. By submitting this tender you agree to e-trading. You can view information on CP&F and the methods to connect at MOD contracting, purchasing and finance: [e-procurement system - Publications - GOV.UK](#). Please feel free to consult the service provider on connectivity options. Failure to accept electronic trading, including payment, will result in your Tender being non-compliant.

## **Change of Circumstances**

29. Where circumstances have changed with regard to a Statement Relating to Good Standing or you have not previously submitted a Statement Relating to Good Standing select 'Yes' and submit a Statement Relating to Good Standing with your Tender.

## **Asbestos, Hazardous Items and Depletion of the Ozone Layer**

30. The Authority is required to report any items that use asbestos, that are hazardous or where there is an impact on the Ozone. Where any Contractor Deliverables fall into one of these categories select 'Yes' and provide further details in your Tender.

## **Military Aviation Authority (MAA) Requirements**

31. There are no Military Aviation Authority Requirements.

## **Bank or Parent Company Guarantee**

32. A Bank or Parent Company Guarantee is not required.

## **The Armed Forces Covenant**

33. The Armed Forces Covenant is a public sector pledge from Government, businesses, charities and organisations to demonstrate their support for the Armed Forces community. The Covenant was brought in under the Armed Forces Act 2011 to recognise that the whole nation has a moral obligation to redress the disadvantages the armed forces community face in comparison to other citizens, and recognise sacrifices made.

34. The Covenant's two principles are that:

- a. The Armed Forces community would not face disadvantages when compared to other citizens in the provision of public and commercial services; and
- b. Special consideration is appropriate in some cases, especially for those who have given most such as the injured and the bereaved.

The Authority encourages all Tenderers, and their suppliers, to sign the Corporate Covenant, declaring their support for the Armed Forces community by displaying the values and behaviours set out therein.

35. Guidance on the various ways you can demonstrate your support through the Corporate Covenant is at: <https://www.gov.uk/government/policies/armed-forces-covenant>.
36. If you wish to register your support you can provide a point of contact for your company on this issue to the Armed Forces Covenant Team at the address below, so that the MOD can alert you to any events or initiatives in which you may wish to participate. The Covenant Team can also provide any information you require in addition to that included on the website.

Email address: [covenant-mailbox@mod.uk](mailto:covenant-mailbox@mod.uk)

Address: Armed Forces Covenant Team

Zone D, 6<sup>th</sup> Floor, Ministry Of Defence

Main Building, Whitehall, London, SW1A 2HB

37. Paragraphs 33 – 36 above are not a condition of working with the Authority now or in the future, nor will this issue form any part of the tender evaluation, contract award procedure or any resulting contract. However, the Authority very much hopes you will want to provide your support.

**Schedule 1 – Additional Definitions of Contract**

N/A

**Schedule 2 – Schedule of Requirements for Contract No: FLEET/00566**

**For a Scanning Electron Microscope with Upgraded EDX Analysis Software and Ongoing Support**

Deliverables									
Item Number	MOD Stock Reference No.	Part No. (where applicable)	Specification	Consignee Address Code (full address is detailed in DEFFORM 96)	Packaging Requirements inc. PPQ and DofQ (as detailed in DEFFORM 96)	Delivery Date	Total Qty	Firm Price (£) Ex VAT	
								Per Item	Total inc. packaging (and delivery if specified in the Purchase Order)
1			Scanning Electron Microscope and Upgraded EDX Software	XX	00		1		
2			Preventative Maintenance, Calibration and support for EDX Analysis Equipment Yr1	XX	00		1		
3			Preventative Maintenance, Calibration and support for SEM with EDX Facility Yr2	XX	00		1		
4			Preventative Maintenance, Calibration and support for SEM with EDX Facility Yr3	XX	00		1		
5			Preventative Maintenance, Calibration and support for SEM with EDX Facility Yr4	XX	00		1		
6			Preventative Maintenance, Calibration and support for SEM with EDX Facility Yr5	XX	00		1		
								<b>Total Firm Price</b>	

## Schedule 3 – Contract Data Sheet for Contract No: FLEET/00566

<b>Contract Period</b>	<p>Effective date of Contract: Date of Acceptance of Offer of Contract (as per the DEFFORM 10 for FLEET/00566)</p> <p>The Contract expiry date shall be: 5 (five) years from the date of Acceptance of Offer of Contract (as per the DEFFORM 10 for FLEET/00566)</p>
<b>Clause 6 - Notices</b>	<p>Notices served under the Contract can be transmitted by electronic mail</p> <p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>Notices served under the Contract shall be sent to the following address:</p> <p>Authority:</p> <p>Hannah Streatfield Def Comrcl CC-Navy 18 Room 303 3rd Floor Bldg 1/080 Jago Road HMNB Portsmouth PO1 3LU</p> <p><a href="mailto:DefComrclCCNavy18@mod.uk">DefComrclCCNavy18@mod.uk</a></p> <p>Contractor:</p>
<b>Clause 8 – Supply of Contractor Deliverables and Quality Assurance</b>	<p>Is a Deliverable Quality Plan required for this Contract?</p> <p>Yes <input type="checkbox"/></p> <p>No <input checked="" type="checkbox"/></p> <p>If Yes the Deliverable Quality Plan must be set out as defined in AQAP 2105 and delivered to the Authority (Quality) within ( ) Business Days of Contract Award. Once agreed by the Authority the Quality Plan shall be incorporated into the Contract. The Contractor shall remain at all times, solely responsible for the accuracy, suitability and applicability of the Deliverable Quality Plan.</p>

<b>Clause 9 – Supply of Data for Hazardous Contractor Deliverables, Materials and Substances</b>	<p>A completed DEFFORM 68 (Hazardous Articles, Materials or Substance Statement), and if applicable, Safety Data Sheet(s) are to be provided by e-mail with attachments in Adobe PDF or MS WORD format to:</p> <p>a) The Authority's Representative (Commercial)</p> <p>b) <a href="mailto:DSALand-MovTpt-DGHSIS@mod.uk">DSALand-MovTpt-DGHSIS@mod.uk</a></p> <p>or: if only a hardcopy is available to:</p> <p>a) The Authority's Representative (Commercial)</p> <p>b) Hazardous Stores Information System (HSIS) Defence Safety Authority (DSA) Movement Transport Safety Regulator (MTSR) Hazel Building Level 1, #H019 MOD Abbey Wood (North) Bristol, BS34 8QW DSA-DLSR-MovTpt-DG HSIS (MULTIUSER)</p> <p>to be Delivered no later than one (1) month prior to the Delivery Date for the Contract Deliverable or by the following date:</p>
<b>Clause 10 – Delivery/Collection</b>	<p>Contract Deliverables are to be:</p> <p>Delivered by the Contractor <input checked="" type="checkbox"/></p> <p>Special Instructions: N/A</p> <p>Collected by the Authority <input type="checkbox"/></p> <p>Special Instructions (including consignor address if different from Contractor's registered address): N/A</p>
<b>Clause 12 – Packaging and Labelling of Contractor Deliverables</b>	<p>Additional packaging requirements: N/A</p>
<b>Clause 13 – Progress Meetings</b>	<p>The Contractor shall be required to attend the following meetings:</p> <p>Type: N/A</p> <p>Frequency: N/A</p> <p>Location: N/A</p>

**Clause 13 – Progress Reports**

The Contractor is required to submit the following Reports:

Type: N/A

Frequency: N/A

Method of Delivery: N/A

Delivery Address: N/A



## Appendix - Addresses and Other Information

**1. Commercial Officer:**

Name: Hannah Streatfield

Address: Room 303, 3rd Floor, Bldg 1/080, Jago Road, HMNB, Portsmouth, PO1 3LU

Email: [DefComrclCC-Navy18@mod.uk](mailto:DefComrclCC-Navy18@mod.uk)

☎ 02392 727632

**8. Public Accounting Authority:**

1. Returns under DEFCON 694 (or SC equivalent) should be sent to DBS Finance ADMT – Assets In Industry 1, Level 4 Piccadilly Gate, Store Street, Manchester, M1 2WD  
☎ 44 (0) 161 233 5397

2. For all other enquiries contact DES Fin FA-AMET Policy, Level 4 Piccadilly Gate, Store Street, Manchester, M1 2WD  
☎ 44 (0) 161 233 5394

**2. Project Manager, Equipment Support Manager or PT Leader**  
(from whom technical information is available):

Name:

Address:

Email:

**9. Consignment Instructions:**

The items are to be consigned as follows:

Please contact the Project Manager in Box 2 prior to delivery

**3. Packaging Design Authority:**

Organisation and point of contact: N/A

(where no address is shown please contact the Project Team in Box 2)

☎ N/A

**10. Transport.** The appropriate Ministry of Defence Transport Offices are:A. **DSCOM**, DE&S, DSCOM, MoD Abbey Wood, Cedar 3c, Mail Point 3351, BRISTOL BS34 8JH**Air Freight Centre**

IMPORTS ☎ 030 679 81113 / 81114 Fax 0117 913 8943

EXPORTS ☎ 030 679 81113 / 81114 Fax 0117 913 8943

**Surface Freight Centre**

IMPORTS ☎ 030 679 81129 / 81133 / 81138 Fax 0117 913 8946

EXPORTS ☎ 030 679 81129 / 81133 / 81138 Fax 0117 913 8946

**B. JSCS**JSCS Helpdesk ☎ 01869 256052 (option 2, then option 3); JSCS Fax No 01869 256837 [www.freightcollection.com](http://www.freightcollection.com)**4. (a) Supply/Support Management Branch or Order Manager**  
**Branch/Name:** N/A

(where no address is shown please contact the Project Team in Box 2)

☎ N/A

**(b) U.I.N.** N5708A**5. Drawings/Specifications are available from:** N/A**6. Intentionally Left Blank****7. Quality Assurance Representative:** N/A

Commercial staff are reminded that all Quality Assurance requirements should be listed under the General Contract Conditions.

**AQAPS** and **DEF STANs** are available from UK Defence Standardization, for access to the documents and details of the helpdesk visit <http://dstan.uwh.diiif.r.mil.uk/> [intranet] or <https://www.dstan.mod.uk/> [extranet, registration needed]

**11. The Invoice Paying Authority:**

Ministry of Defence ☎ 0151-242-2000

DBS Finance

Walker House, Exchange Flags Fax: 0151-242-2809

Liverpool, L2 3YL

**Website is:**<https://www.gov.uk/government/organisations/ministry-of-defence/about/procurement#invoice-processing>**12. Forms and Documentation are available through \*:**

Ministry of Defence, Forms and Pubs Commodity Management PO Box 2, Building C16, C Site

Lower Arnclott

Bicester, OX25 1LP (Tel. 01869 256197 Fax: 01869 256824)

**Applications via fax or email:** [DESLCSLS-](mailto:DESLCSLS-)[OpsFormsandPubs@mod.uk](mailto:OpsFormsandPubs@mod.uk)**NOTES**

\* Many **DEFCONs** and **DEFFORMs** can be obtained from the MOD Internet Website [extranet, registration needed]: <https://www.aof.mod.uk/aofcontent/tactical/toolkit/index.htm>

**Schedule 4 – Contractor’s Commercially Sensitive  
Information Form (i.a.w. Clause 5) for Contract No:  
FLEET/00566**

Contract No: FLEET/00566
Description of Contractor’s Commercially Sensitive Information:
Cross Reference(s) to location of sensitive information:
Explanation of Sensitivity:
Details of potential harm resulting from disclosure:
Period of Confidence (if applicable):
Contact Details for Transparency / Freedom of Information matters: Name: Position: Address: Telephone Number: Email Address:

## **Schedule 5 – Statement of Requirement for Contract No: FLEET/00566**

### **Specimen chamber and stage:**

1. The Scanning Electron Microscope (SEM) shall have a specimen chamber of at least 420 mm diameter and 330 mm in height.
2. The stage and chamber combination shall allow the viewing of all of the extremities of a specimen in movements of X=130mm Y=130 and Z= 50mm and tilt of -10° to 90° to the rear without touching any other part of the instrument. The stage shall be equipped with an alarm to warn if any part of the stage or specimen touches any other part of the instrument.
3. The chamber shall contain sufficient ports to accommodate a range of different detectors and a chamberscope which shall enable inspection of the specimen stage. Tenders shall state the number of ports available and position of the chamberscope relative to the sample and pole piece.
4. The microscope shall have the ability to navigate around the sample using a digital optical image.
5. The specimen stage shall be a Cartesian type capable of being controlled by console controls, and will enable movement of X: 130 mm Y: 130 mm Z: 50 mm T 0-90 degrees R 360 degrees continuous.
6. The stage shall be capable of supporting a load of 2kg in the un-tilted position.
7. The stage shall have 5 axis motorised control which shall be rate compensated to allow for the magnification being used and that is capable of being automated. Control of the stage position shall be accurate to 1 micron and a display of stage position information will be available.
8. The stage shall be supplied with adapters to take multiple specimens on 32mm diameter stubs.

### **Electron optics:**

1. The system shall have an electron gun using a tungsten filament electron source and also a LaB<sub>6</sub> electron source.
2. The filament assembly shall allow quick changing and alignment of the filament by the user. Tenders will state the system capability.
3. Filament condition indicators shall be provided.
4. The electron gun shall have optional automatic and manual alignment.
5. The accelerating voltage shall be in the range 0.2 – 30 kV, continuously variable.
6. The probe current shall be adjustable within a minimum range of 0.5 pA to 5µA continuously variable. Tenders will state the system capability.
7. The stability of the probe current shall be a minimum of 0.2%/hr.
8. Electromagnetic apertures shall be provided to control the probe current.

9. The resolution shall be a maximum of 2 nm at 30kV, 10nm at 3kV and 15nm at 1kV.
10. The final aperture position adjustment shall be easily adjustable by the user. Tenders will state which methods and aids for adjustment are included.
11. The magnification shall be adjustable within a minimum range of 5x to 1000,000x. Compensation for changes in working distance or accelerating voltage shall be automatic. Tenders will state the system capability.
12. Working distance shall be adjustable within a minimum range of 1mm to 45mm.
13. Automatic beam control shall be provided to give optimum probe diameter and maximum depth of field. Tenders will state the system capability.
14. The focus control shall be user controlled for both coarse and fine focus and dynamic focus shall also be available.
15. The raster scan speed shall be in the range 10 frames second to 1 frame in 20 minutes.

**Vacuum system and detectors:**

1. The vacuum system shall incorporate the ability to operate at variable pressure/low vacuum of up to 100 Pa.
2. The system shall achieve the required operational vacuum in less than 4 minutes. Tenders will state capability of equipment offered.
3. A display of chamber and column vacuum readings shall be available.
4. The microscope should be air cooled
5. All vacuum pump switching shall be automatic.
6. Chamber venting shall be automatic and use air with nitrogen as an option.
7. A secondary electron detector and a low vacuum secondary electron detector shall be fitted.
8. The secondary electron detector bias shall be adjustable within a minimum range of – 250V to +400V.
9. The instrument shall be provided with a quadrant type solid state back scattered electron detector that allows independent control of each quadrant for both composition and topographic modes shall be fitted.
10. A detector for X-ray spectroscopy and compatible software shall be fitted. The tender shall include details of the type of software to be supplied-see below.
11. All detectors shall be of a type capable of withstanding sudden vacuum failure.
12. All detectors shall be available for use simultaneously when operated in appropriate working conditions.
13. The instrument shall be fitted with a column burnout/contamination removal system.

**Imaging:**

1. The image brightness and contrast shall be set by the user or automatically.
2. There shall be two 24 inch monitors such that separate detector signals may be displayed on each monitor, live and simultaneously.
3. The scan modes shall consist of reduced raster, spot and line scanning.
4. The image resolution shall be 3024x2304 pixels, 16 bit deep.
5. The image processing software shall encompass frame averaging (2-256 frames), frame integration (2-256 frames).
6. The image display system shall include functions for image feature analysis such as size measurement. The tender shall state which functions are included.
7. The image display system shall be capable of printing, saving and retrieving images to and from a network location in an industry recognised format and at a minimum resolution of 1024x768 pixels. Windows 7 is the current in use operating system. It is acceptable for any control software to operate in this environment. However, a Windows 10 based system is preferable. Tenders shall state the formats and resolutions supported.
8. The image shall have the magnification, micron bar, accelerating voltage, detector type, image number, measurement tools and results displayed on the screen if user desires.

**Energy Dispersive X-ray (EDX) analysis system:****Overview:**

The existing Oxford Instrument's 80 mm<sup>2</sup> Inca Energy X-ray Detector (X-Max80) shall be fitted to the SEM.

The EDX software shall be upgraded to that currently available that will run within the preferable Windows 10 environment (Windows 7 acceptable). It shall be compatible with and capable of enabling the existing X-Max80 to perform PC controlled multi elemental analysis simultaneously over: an area (mapping), a reduced area, spot, line. The software shall enable automatic quantitative analysis to be carried out at a number of sequential sample locations chosen by the user. The analysis shall be displayed on a 24 inch monitor.

**Specifics:**

1. The EDX system shall be integrated to allow control of the SEM.
2. The EDX system shall achieve a resolution of 138eV or better and include automatic functions for the conditioning of the detector in event of ice formation.
3. The analysis system shall include manual and automatic element identification for all elements of atomic number 6 (Carbon) and higher.
4. The analysis system shall be capable of standardless composition analysis and be accurate to 0.1% by weight of samples of minimum size 20 micron.
5. Composition analyses shall include corrections for matrix, peak overlap and electron beam settings as a minimum. Tenders shall state which correction algorithms are included.

6. The analysis system shall be capable of automatically analysing a user-defined queue of points and areas.
7. The analysis system shall be capable of generating multiple element X-ray maps of a specimen. Tenders shall state any limitations on the number of elements that can be mapped simultaneously.
8. The analysis system shall be capable of producing high magnification images of large areas automatically.
9. The analysis system shall be capable of comparing and matching spectra from a user definable library.
10. The analysis system shall be capable of stripping unwanted peaks from collected spectra. The capability to synthesise spectra from a known composition should be included as a costed option.
11. The analysis system shall include on screen help and a user guide to the analytical process.
12. The analysis system shall include a user configurable report generator capable of including images, quantified analyses and X-ray spectra as a minimum.
13. The software and associated hardware shall be able to conduct automated particle detection, analysis and classification based on user defined parameters, over multiple fields and samples. The analysis data shall include multi elemental analysis, size and size ratios. The software shall record the position of the particle and allow recall of the stage position post analysis.
14. The capability to access analysis results from a remote workstation should be included as a costed option.

**Microscope footprint and other requirements:**

1. The microscope shall be fitted with a robust control panel with rotary controls.
2. The footprint of the microscope shall be a maximum of length 2m, width 2m, height 2m.
3. Vibration control based on a solid state feedback system shall be supplied.
4. The microscope shall run on 240 volts single phase at 50-60 HZ.
5. All equipment supplied will comply with the relevant health and safety legislation.
6. The equipment shall be supplied with all manuals, tools and spares required for normal use and user maintenance tasks.
7. Installation and commissioning of the equipment will be the responsibility of the supplier or their representatives. Tenders shall be inclusive of costs for the delivery, installation and commissioning of the equipment.
8. The tender shall include on-site familiarisation training for a minimum of 4 operators.
9. The tender shall include for an additional 4 (four) years maintenance/support contract – total 5 (five) years support – first year is manufacturer's warranty. This is to include annual preventative maintenance (PM) visit(s), as appropriate; travel and spare parts for PM;

support response of 48 hours; breakdown costs; and software/firmware updates as they become available.

10. If applicable, the tender shall explain to what extent the Prime Contractor will check the environmental and health and safety performance of any sub-contractors involved in the delivery of this Contract.

## Schedule 6 – Technical Evaluation Questions for Contract No: FLEET/00566

Questions	Score (0-5)	Weight	Total Marks	Comments
<b>Scanning Electron Microscope (SEM)</b>				
• Does the SEM have a specimen chamber of at least 420 mm diameter and 330 mm in height?		5		
• Is the stage capable of supporting a load of 2kg in the un-tilted position?		5		
• Does the system have an electron gun using a tungsten filament electron source and also a LaB <sub>6</sub> electron source?		4		
• Does the vacuum system incorporate the ability to operate at variable pressure/low vacuum of up to 100 Pa?		5		
• Are a secondary electron detector and a low vacuum secondary electron detector fitted?		5		
• Is the instrument provided with a quadrant type solid state back scattered electron detector that allows independent control of each quadrant for both composition and topographic modes?		5		
• Is a detector for X-ray spectroscopy and compatible software fitted?		5		
• Is the instrument fitted with a column burnout/contamination removal system?		5		
• Is the image display system capable of printing, saving and retrieving images to and from a network location in an industry recognised format and at a minimum resolution		4		



of 1024x768 pixels?				
• Is the operating system Windows 10?		4		
<b>Energy Dispersive X-ray (EDX) analysis system</b>				
• Will the existing Oxford Instrument's 80 mm <sup>2</sup> Inca Energy X-ray Detector (X-Max80) be fitted to the SEM?		5		
• Will the EDX software be upgraded to that currently available, running within the preferable Windows 10 environment?		4		
• Is the EDX software compatible with and capable of enabling the existing X-Max80 to perform PC controlled multi elemental analysis simultaneously over: an area (mapping), a reduced area, spot, line?		5		
• Does the software enable automatic quantitative analysis to be carried out at a number of sequential sample locations chosen by the user?		4		
• Is the EDX analysis displayed on a 24 inch monitor?		4		
<b>Conformance with the Statement of Requirement</b>				
• To what extent does the Tenderer's proposal satisfy the criteria in the Statement of Requirement?		5		
Total Marks for all questions				

## Appendix 1 to Schedule 6 – Technical Evaluation Matrix for Contract No: FLEET/00566

1. Assessments are determined by awarding a score out of 5 against responses to each component as follows:

5 = **Excellent** – The response is comprehensive, unambiguous and demonstrates a thorough understanding of the requirement and provides details of how the requirement will be met in full.

4 = **Good** – The response is sufficiently detailed and demonstrates a good understanding and provides details of how the requirement will be fulfilled.

3 = **Acceptable** – The response addresses the majority of the elements of the requirement but does not fully detail or explain how the requirement will be fulfilled.

2 = **Partially Acceptable** – The response addresses half of the elements of the requirement but contains insufficient/ limited detail or explanation of how the requirement will be fulfilled.

1 = **Poor** – The response addresses some of the elements of the requirement but does not fully detail or explain how the requirement will be fulfilled.

0 = **Not Answered** – Nil or inadequate response. Fails to demonstrate an ability to meet the requirement.

**All scores will require formal comment on the reasoning behind the mark given.**

2. These scores are then weighted against the figure stated in this matrix.
3. Where stated, a **Pass/Fail Criteria** will apply (**any FAIL on a Pass/Fail question will result in rejection of your Tender**).
4. Any question not answered will be awarded a score of zero.
5. **The evaluation is out of 100** (as this represents 100% of the total score) and the split is 70/30 technical/pricing. A score of 70 is allocated to the best technically compliant tender and the technical scores of the other tenders are calculated using a percentage (%) difference method. A score of 30 is allocated to the lowest price and a score is calculated for the price on the remaining tenders using a percentage (%) difference method.
6. In the event of two or more Tenders being awarded the same total the Authority shall choose the Tender with the Lowest Price.