

# Invitation to Quote

**Invitation to Quote (ITQ) on behalf of Science and Technology  
Facilities Council**

**Subject UK SBS SKA Telescope Manager Software**

**Sourcing reference number IT17111**

**UK Shared Business Services Ltd (UK SBS)**  
[www.uksbs.co.uk](http://www.uksbs.co.uk)

Registered in England and Wales as a limited company. Company Number 6330639.  
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VAT registration GB618 3673 25  
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**UKSBS**  
*Shared Business Services*

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# Section 1 – About UK Shared Business Services

## Putting the business into shared services

UK Shared Business Services Ltd (UK SBS) brings a commercial attitude to the public sector; helping our customers improve efficiency, generate savings and modernise.

It is our vision to become the leading provider for our customers of shared business services in the UK public sector, continuously reducing cost and improving quality of business services for Government and the public sector.

Our broad range of expert services is shared by our customers. This allows our customers the freedom to focus resources on core activities; innovating and transforming their own organisations.

Core services include Procurement, Finance, Grants Admissions, Human Resources, Payroll, ISS, and Property Asset Management all underpinned by our Service Delivery and Contact Centre teams.

UK SBS is a people rather than task focused business. It's what makes us different to the traditional transactional shared services centre. What is more, being a not-for-profit organisation owned by its customers, UK SBS' goals are aligned with the public sector and delivering best value for the UK taxpayer.

UK Shared Business Services Ltd changed its name from RCUK Shared Services Centre Ltd in March 2013.

## Our Customers

Growing from a foundation of supporting the Research Councils, 2012/13 saw Business, Energy and Industrial Strategy (BEIS) transition their procurement to UK SBS and Crown Commercial Services (CCS – previously Government Procurement Service) agree a Memorandum of Understanding with UK SBS to deliver two major procurement categories (construction and research) across Government.

UK SBS currently manages £700m expenditure for its Customers.

Our Customers who have access to our services and Contracts are detailed [here](#).

## Section 2 – About Our Customer

The UK Astronomy Technology Centre (UK ATC) is the national centre for astronomical technology. It is also part of the Science and Technology Facilities Council.

UK ATC designs and builds instruments for many of the world's major telescopes. They also project-manage UK and international collaborations and their scientists carry out observational and theoretical research into questions such as the origins of planets and of galaxies.

Based at the Royal Observatory in Edinburgh, and operated by STFC, its technology can be found in telescopes both on the ground and in space

At STFC, they have a good understanding not just of what they need to achieve but also of the road they need to take to reach our goals.

Working within the framework of their Royal Charter, our starting-point is an inspirational Vision that defines our overarching objective. Building on this, a comprehensive Corporate Strategy 2010-20 outlines how they are transforming this Vision into reality.

The translation of the Corporate Strategy into planned activity at an operational level is through a medium term Delivery Plan and Scorecard which aligns to the current spending review period ending in 2020.

An annual Operating Plan, with an accompanying annual Action Plan, then completes the “golden thread” from individual or team activities through to strategic goals.

The Corporate Strategy is complemented by specialist supporting strategies targeting specific fields of STFC activity.

More information at: <http://www.stfc.ac.uk/about-us/>

## Section 3 - Working with UK Shared Business Services Ltd.

In this section you will find details of your Procurement contact point and the timescales relating to this opportunity.

| Section 3 – Contact details |   |  |
|-----------------------------|---|--|
| 3.1                         | Customer Name and address                             | Science and Technology Facilities Council,<br>Polaris House, North Star Avenue, Swindon,<br>SN2 1SZ  |
| 3.2                         | Buyer name  | UK SBS ICT Procurement   |
| 3.3                         | Buyer contact details                                 | ICTProcurement@uksbs.co.uk   |
| 3.4                         | Estimated value of the Opportunity                    | The maximum estimated value of the opportunity will be £80,000.00excluding VAT. £75,000.00 excluding VAT of this budget shall be allocated to the delivery of this requirement. £5,000.00 excluding VAT of this budget shall be for travel and subsistence costs.                                      |
| 3.5                         | Process for the submission of clarifications and Bids | <b>All correspondence shall be submitted within the Emptoris e-sourcing tool. Guidance Notes to support the use of Emptoris is available <a href="#">here</a>. Please note submission of a Bid to any email address including the Buyer <u>will</u> result in the Bid <u>not</u> being considered.</b> |

| Section 3 - Timescales |  |                     |
|------------------------|--|---------------------|
| 3.6                    | Date of Issue of Contract Advert and location of original Advert   | 03/05/2017          |
| 3.7                    | Latest date/time ITQ clarification questions should be received through Emptoris messaging system                | 09/05/2017<br>14:00 |
| 3.8                    | Latest date/time ITQ clarification answers should be sent to all potential Bidders by the Buyer through Emptoris | 11/05/2017<br>14:00 |
| 3.9                    | Latest date/time ITQ Bid shall be submitted through Emptoris   | 16/05/2017<br>14:00 |
| 3.10                   | Date/time Bidders should be available if face to face  | 23/05/2017          |

|      |   |            |
|------|---|------------|
|      | clarifications are required                     |            |
| 3.11 | Anticipated rejection of unsuccessful Bids date | 30/05/2017 |
| 3.12 | Anticipated Award date                          | 30/05/2017 |
| 3.13 | Anticipated Contract Start date                 | 02/06/2017 |
| 3.14 | Anticipated Contract End date                   | 31/01/2018 |
| 3.15 | Bid Validity Period                             | 60 Days    |

## Section 4 – Specification

### **Aim:**

The Telescope Manager (TM) project is one of a number of work packages established for the Square Kilometer Array (SKA) (pre-construction phase) project as directed and overseen by the SKA Project Office (Jodrell Bank), with large worldwide consortia set-up for each of its work packages following a non- competitive bid submission and selection process in 2013.

The TM work package is a software project with National Centre for Radio Astrophysics ,India (NCRA) as the consortium lead and led locally at the UK ATC by Alan Bridger, involving the UK ATC Software Group only but with some software effort sub-contracted to an external industrial partner. The UK ATC is leading the Observation Management element, a key top level item responsible for all aspects of science observing, from proposal submission, through detailed observation preparation and planning to the online execution of scripts to take and calibrate science data. The work also supports various system engineering and telescope management tasks. All of the work requires effort input only, with some travel and subsistence expenditure and contract payments to industry. Observation Management also includes teams from INAF and Indian Industry, led from the UKATC.

The main aim of this Contract is to continue to support and update work done under a previous Contract to deliver a Critical Design Review (CDR)-level design for the Planning and Scheduling components of the SKA1 Observation Management system. Other tasks related to this work will be carried out as necessary.

### **Objectives:**

The key tasks involved are part of the Observation Management sub-element of Telescope Manager. The Telescope Manager Element Consortium is led by the NCRA, India. The Observation Management sub-element is led by the UK Astronomy Technology Centre of the STFC (UK ATC).

All tasks to be carried out in collaboration with UK ATC, INAF (*Instituto Nazionale di Astrofisica*), *Persistent Systems Ltd* (PSL) staff, and as necessary NCRA /TCS (*Tata Consultancy Services*)/TRDDC (*Tata Research Development and Design Centre*) staff. Collaboration with *Institut d'Estudis Espacials de Catalunya* (IEEC) and *GTD Sistemas de Información* may also be required.

#### Task list:

1. Lead the revision of the Requirements Specification document for the SKA1 Planning and Scheduling, culminating in the release for CDR.
  - a. Interim releases to be produced as necessary.
2. Lead the detailed design of the SKA1 Planning and Scheduling system, to be finalised in a Design Report, culminating in the release for CDR.

- a. Including interface definitions.
  - b. Interim releases to be produced as necessary.
3. Take an active role in revising the Requirements Specification document for other areas of SKA1 Observation Management.
4. Take an active role in the detailed design of other areas of the SKA1 Observation Management system.
5. Production of, or contributions to, other documents required for CDR, including but not limited to: Development Plan; Qualification and Roll-out Plan; Verification Plan, full list TBD.
6. Create and execute a prototyping plan for planning and scheduling These prototype(s) will focus on key aspects of the proposed design to demonstrate their feasibility and/or inform the selection of alternative algorithms or implementation approaches and will be identified in the course of Stage 2 itself. Report on the prototype(s) as part of CDR deliverables.
7. If required assist integration of prototype tools into an end-to-end Telescope Manager prototype system.
8. Contribute to wider Telescope Manager discussions, as appropriate.
9. Attend meetings as required.
10. Design of a draft interface between Observation Management and the SDP to cover this new concept. The design of, in conjunction with the SDP team, a draft SDP "Processing Request". This shall include the processing "recipe" and required metadata such as number of baselines, observing mode, etc
11. Plan prototype so that for each Scheduling Block in the planning period an SDP "Processing Request" is harvested from the SB contents
12. In the design and prototype associate the start and end execution times of the SB with the processing request, along with any other required timing information
13. In the design and prototype for the whole planning period send the collection of processing requests for a planning period to the SDP using the agreed interface. This is expected to be a simple spreadsheet type format
14. In the design allow for an analysis of the return result from the SDP and if a re-plan is required continue the iteration
15. Completion of the Observation Management requirements and design activities arising from the extension of the CDR phase
16. Leading the detailed design of the SKA1 Planning and Scheduling components, including production of the revised design report for CD

17. Report on work done as required, written quarterly reports to UK ATC

**Scope:**

1. MAIN TASKS

The successful supplier is required to complete the tasks listed in section 3 above by January 2018.

2. PERSONNEL

The UK ATC expects a single person to be nominated as the main technical contributor and point of contact. Other staff may be utilised as necessary for the prototyping stage.

3. TRAVEL AND MEETINGS

Travel to meetings within the UK and overseas will be required. This travel shall be booked in accordance with the STFC expenses policy and shall be approved by STFC prior to travelling. Travel and Subsistence costs will be met by the STFC upon receipt of claims and, where possible, original receipts.

4. PROJECT REPORTING

A written monthly progress report, , will be the main mechanism of reporting progress against deliverables.

**Requirement:**

The table below lists the project deliverables based on the tasks listed above.

Table of Deliverables:

| Item | Deliverable  | Date Due                                   |
|------|--|--|
| 1    | Requested changes to design report for Observation Management sections of telescope manager design | Throughout up to final report January 2018 |
| 2    | Implement SDP interface tasks as outlined above.   | Throughout up to final report January 2018 |
| 3    | Contributions to entire Observation Management work  | Throughout up to final report January 2018 |

**Terms and Conditions**

Bidders are to note that any requested modifications to UK SBS Terms and Conditions on the grounds of statutory and legal matters only, shall be raised as a formal clarification during the permitted clarification period.

## Section 5 – Evaluation model

The evaluation model below shall be used for this ITQ, which will be determined to two decimal places.

Where a question is 'for information only' it will not be scored.

The evaluation team may comprise staff from UK SBS, the Customer and any specific external stakeholders UK SBS deem required. After evaluation the scores will be finalised by performing a calculation to identify (at question level) the mean average of all evaluators (Example – a question is scored by three evaluators and judged as scoring 5, 5 and 6. These scores will be added together and divided by the number of evaluators to produce the final score of 5.33 ( $5+5+6 = 16 \div 3 = 5.33$ ))

| Pass / fail criteria |        |                                   |
|----------------------|--------|-----------------------------------|
| Questionnaire        | Q No.  | Question subject                  |
| Commercial           | SEL1.2 | Employment breaches/ Equality     |
| Commercial           | FOI1.1 | Freedom of Information Exemptions |
| Commercial           | AW1.1  | Form of Bid                       |
| Commercial           | AW1.3  | Certificate of Bona Fide Bid      |
| Commercial           | AW3.1  | Validation check                  |
| Commercial           | AW4.1  | Contract Terms                    |
| Price                | AW5.5  | E Invoicing                       |
| Price                | AW5.6  | Implementation of E-Invoicing     |
| Quality              | AW6.1  | Compliance to the Specification   |

| Scoring criteria  |       |  |               |
|---|-------|--|---------------|
| <b>Evaluation Justification Statement</b>   |       |  |               |
| In consideration of this particular requirement UK SBS has decided to evaluate Potential Providers by adopting the weightings/scoring mechanism detailed within this ITQ. UK SBS considers these weightings to be in line with existing best practice for a requirement of this type. |       |  |               |
| Questionnaire   | Q No. | Question subject                       | Maximum Marks |
| Price   | AW5.2 | Price                                  | 40%           |
| Quality   | AW6.2 | Project Team and Capability to Deliver | 50%           |
| Quality   | AW6.3 | Project Plan and Risk Management       | 10%           |

## Evaluation of criteria

### Non-Price elements

Each question will be judged on a score from 0 to 100, which shall be subjected to a multiplier to reflect the percentage of the evaluation criteria allocated to that question.

Where an evaluation criterion is worth 20% then the 0-100 score achieved will be multiplied by 20.

**Example** if a Bidder scores 60 from the available 100 points this will equate to 12% by using the following calculation: Score/Total Points available multiplied by 20 ( $60/100 \times 20 = 12$ )

Where an evaluation criterion is worth 10% then the 0-100 score achieved will be multiplied by 10.

**Example** if a Bidder scores 60 from the available 100 points this will equate to 6% by using the following calculation: Score/Total Points available multiplied by 10 ( $60/100 \times 10 = 6$ )

The same logic will be applied to groups of questions which equate to a single evaluation criterion.

The 0-100 score shall be based on (unless otherwise stated within the question):

|     |  |
|-----|--|
| 0   | The Question is not answered or the response is completely unacceptable.   |
| 10  | Extremely poor response – they have completely missed the point of the question.   |
| 20  | Very poor response and not wholly acceptable. Requires major revision to the response to make it acceptable. Only partially answers the requirement, with major deficiencies and little relevant detail proposed.  |
| 40  | Poor response only partially satisfying the selection question requirements with deficiencies apparent. Some useful evidence provided but response falls well short of expectations. Low probability of being a capable supplier.  |
| 60  | Response is acceptable but remains basic and could have been expanded upon. Response is sufficient but does not inspire.   |
| 80  | Good response which describes their capabilities in detail which provides high levels of assurance consistent with a quality provider. The response includes a full description of techniques and measurements currently employed.   |
| 100 | Response is exceptional and clearly demonstrates they are capable of meeting the requirement. No significant weaknesses noted. The response is compelling in its description of techniques and measurements currently employed, providing full assurance consistent with a quality provider. |

All questions will be scored based on the above mechanism. Please be aware that the final score returned may be different as there may be multiple evaluators and their individual scores will be averaged (mean) to determine your final score.

### Example

Evaluator 1 scored your bid as 60

Evaluator 2 scored your bid as 60

Evaluator 3 scored your bid as 40

Evaluator 4 scored your bid as 40

Your final score will  $(60+60+40+40) \div 4 = 50$

**Price elements** will be judged on the following criteria.

The lowest price for a response which meets the pass criteria shall score 100.  
All other bids shall be scored on a pro rata basis in relation to the lowest price. The score is then subject to a multiplier to reflect the percentage value of the price criterion.

For example - Bid 1 £100,000 scores 100.

Bid 2 £120,000 differential of £20,000 or 20% remove 20% from price scores 80

Bid 3 £150,000 differential £50,000 remove 50% from price scores 50.

Bid 4 £175,000 differential £75,000 remove 75% from price scores 25.

Bid 5 £200,000 differential £100,000 remove 100% from price scores 0.

Bid 6 £300,000 differential £200,000 remove 100% from price scores 0.

Where the scoring criterion is worth 50% then the 0-100 score achieved will be multiplied by 50.

In the example if a supplier scores 80 from the available 100 points this will equate to 40% by using the following calculation: Score/Total Points multiplied by 50 ( $80/100 \times 50 = 40$ )

The lowest score possible is 0 even if the price submitted is more than 100% greater than the lowest price.

(Option 1 – Quality)

Once the evaluation process and due diligence is complete, should the result of the process result in a tied place(s) then the supplier(s) who scored the highest total in the following quality (criteria) shall be awarded the contract.

Quality question AW6.2

## **Section 6 – Evaluation questionnaire**

Bidders should note that the evaluation questionnaire is located within the **e-sourcing questionnaire**.

Guidance on completion of the questionnaire is available at <http://www.ukpbs.co.uk/services/procure/Pages/supplier.aspx>

**PLEASE NOTE THE QUESTIONS ARE NOT NUMBERED SEQUENTIALLY**

## Section 7 – General Information

### What makes a good bid – some simple do's 😊

#### DO:

- 7.1 Do comply with Procurement document instructions. Failure to do so may lead to disqualification.
- 7.2 Do provide the Bid on time, and in the required format. Remember that the date/time given for a response is the last date that it can be accepted; we are legally bound to disqualify late submissions.
- 7.3 Do ensure you have read all the training materials to utilise e-sourcing tool prior to responding to this Bid. If you send your Bid by email or post it will be rejected.
- 7.4 Do use Microsoft Word, PowerPoint Excel 97-03 or compatible formats, or PDF unless agreed in writing by the Buyer. If you use another file format without our written permission we may reject your Bid.
- 7.5 Do ensure you utilise the Emptoris messaging system to raise any clarifications to our ITQ. You should note that typically we will release the answer to the question to all bidders and where we suspect the question contains confidential information we may modify the content of the question to protect the anonymity of the Bidder or their proposed solution
- 7.6 Do answer the question, it is not enough simply to cross-reference to a 'policy', web page or another part of your Bid, the evaluation team have limited time to assess bids and if they can't find the answer, they can't score it.
- 7.7 Do consider who your customer is and what they want – a generic answer does not necessarily meet every customer's needs.
- 7.8 Do reference your documents correctly, specifically where supporting documentation is requested e.g. referencing the question/s they apply to.
- 7.9 Do provide clear and concise contact details; telephone numbers, e-mails and fax details.
- 7.10 Do complete all questions in the questionnaire or we may reject your Bid.
- 7.11 Do check and recheck your Bid before dispatch.

## What makes a good bid – some simple do not's 🙄

### DO NOT

- 7.12 Do not cut and paste from a previous document and forget to change the previous details such as the previous buyer's name.
- 7.13 Do not attach 'glossy' brochures that have not been requested, they will not be read unless we have asked for them. Only send what has been requested and only send supplementary information if we have offered the opportunity so to do.
- 7.14 Do not share the Procurement documents, they are confidential and should not be shared with anyone without the Buyers written permission.
- 7.15 Do not seek to influence the procurement process by requesting meetings or contacting UK SBS or the Customer to discuss your Bid. If your Bid requires clarification the Buyer will contact you.
- 7.16 Do not contact any UK SBS staff or Customer staff without the Buyers written permission or we may reject your Bid.
- 7.17 Do not collude to fix or adjust the price or withdraw your Bid with another Party as we will reject your Bid.
- 7.18 Do not offer UK SBS or Customer staff any inducement or we will reject your Bid.
- 7.19 Do not seek changes to the Bid after responses have been submitted and the deadline for Bids to be submitted has passed.
- 7.20 Do not cross reference answers to external websites or other parts of your Bid, the cross references and website links will not be considered.
- 7.21 Do not exceed word counts, the additional words will not be considered.
- 7.22 Do not make your Bid conditional on acceptance of your own Terms of Contract, as your Bid will be rejected.

## Some additional guidance notes

- 7.23 All enquiries with respect to access to the e-sourcing tool and problems with functionality within the tool may be submitted to Crown Commercial Service (previously Government Procurement Service), Telephone 0345 010 3503.
- 7.24 Bidders will be specifically advised where attachments are permissible to support a question response within the e-sourcing tool. Where they are not permissible any attachments submitted will not be considered.
- 7.25 Question numbering is not sequential and all questions which require submission are included in the Section 6 Evaluation Questionnaire.
- 7.26 Any Contract offered may not guarantee any volume of work or any exclusivity of supply.
- 7.27 We do not guarantee to award any Contract as a result of this procurement
- 7.28 All documents issued or received in relation to this procurement shall be the property of UK SBS.
- 7.29 We can amend any part of the procurement documents at any time prior to the latest date / time Bids shall be submitted through Emptoris.
- 7.30 If you are a Consortium you must provide details of the Consortiums structure.
- 7.31 Bidders will be expected to comply with the Freedom of Information Act 2000 or your Bid will be rejected.
- 7.32 Bidders should note the Government's transparency agenda requires your Bid and any Contract entered into to be published on a designated, publicly searchable web site. By submitting a response to this ITQ Bidders are agreeing that their Bid and Contract may be made public
- 7.33 Your bid will be valid for 60 days or your Bid will be rejected.
- 7.34 Bidders may only amend the Contract terms if you can demonstrate there is a legal or statutory reason why you cannot accept them. If you request changes to the Contract and UK SBS fail to accept your legal or statutory reason is reasonably justified we may reject your Bid.
- 7.35 We will let you know the outcome of your Bid evaluation and where requested will provide a written debrief of the relative strengths and weaknesses of your Bid.
- 7.36 If you fail mandatory pass / fail criteria we will reject your Bid.
- 7.37 Bidders are required to use IE8, IE9, Chrome or Firefox in order to access the functionality of the Emptoris e-sourcing tool.
- 7.38 Bidders should note that if they are successful with their proposal UK SBS reserves the right to ask additional compliancy checks prior to the award of any Contract. In

the event of a Bidder failing to meet one of the compliancy checks UK SBS may decline to proceed with the award of the Contract to the successful Bidder.

- 7.39 All timescales are set using a 24 hour clock and are based on British Summer Time or Greenwich Mean Time, depending on which applies at the point when Date and Time Bids shall be submitted through Emptoris.
- 7.40 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-Government role delivering overall Government policy on public procurement - including ensuring value for money and related aspects of good procurement practice.

For these purposes, UK SBS may disclose within Government any of the Bidders documentation/information (including any that the Bidder considers to be confidential and/or commercially sensitive such as specific bid information) submitted by the Bidder to UK SBS during this Procurement. The information will not be disclosed outside Government. Bidders taking part in this ITQ consent to these terms as part of the competition process.

- 7.41 From 2nd April 2014 the Government is introducing its new Government Security Classifications (GSC) classification scheme to replace the current Government Protective Marking System (GPMS). A key aspect of this is the reduction in the number of security classifications used. All Bidders are encouraged to make themselves aware of the changes and identify any potential impacts in their Bid, as the protective marking and applicable protection of any material passed to, or generated by, you during the procurement process or pursuant to any Contract awarded to you as a result of this tender process will be subject to the new GSC from 2nd April 2014. The link below to the Gov.uk website provides information on the new GSC:

<https://www.gov.uk/government/publications/government-security-classifications>

UK SBS reserves the right to amend any security related term or condition of the draft contract accompanying this ITQ to reflect any changes introduced by the GSC. In particular where this ITQ is accompanied by any instructions on safeguarding classified information (e.g. a Security Aspects Letter) as a result of any changes stemming from the new GSC, whether in respect of the applicable protective marking scheme, specific protective markings given, the aspects to which any protective marking applies or otherwise. This may relate to the instructions on safeguarding classified information (e.g. a Security Aspects Letter) as they apply to the procurement as they apply to the procurement process and/or any contracts awarded to you as a result of the procurement process.

## USEFUL INFORMATION LINKS

- [Emptoris Training Guide](#)
- [Emptoris e-sourcing tool](#)
- [Contracts Finder](#)
- [Tenders Electronic Daily](#)
- [Equalities Act introduction](#)
- [Bribery Act introduction](#)
- [Freedom of information Act](#)