



cherenkov  
telescope  
array

# REQUEST FOR PROPOSALS

## Civil Construction Engineer

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## 1. Background

The Cherenkov Telescope Array Observatory (CTAO) will be the first open ground-based gamma-ray observatory and the world's most sensitive instrument for very high-energy gamma-ray astronomy with more than 60 telescopes in the Northern and Southern hemispheres. It will be built with a significant amount of in-kind contributions from participating institutions across Europe and elsewhere.

The CTAO gGmbH is the interim legal entity in the preparation of the design and implementation of the Observatory until the final legal entity, a European Research Infrastructure Consortium (ERIC), is achieved. The headquarters are located in Saupfercheckweg,1 – 69117 Heidelberg (Germany) and are going to be transferred once the change of the formal legal status to ERIC will be concluded to Italy, in the already existing offices in Via Gobetti 93/3 – 40129 Bologna (Italy).

The CTAO is governed by shareholders from 11 countries and one intergovernmental organisation (ESO), as well as associate members from two countries.

The future CTAO ERIC, will be responsible for the construction and future operation of the two CTAO array sites, one in the Northern hemisphere on La Palma (Canary Islands, Spain) and one in the Southern hemisphere in the Atacama Desert in Northern Chile, as well as the Science Data Management Centre in Berlin-Zeuthen (Germany). Further information about the project can be found at [www.cta-observatory.org](http://www.cta-observatory.org).

To help with the development, design and tendering of the observatory civil infrastructure the CTAO is seeking

### **Civil Construction Engineer**

## 2. Scope

### 2.1.Tasks

In close contact with the CTAO Site Managers, the Site/Infrastructure Design and Planning Team and the CTAO Systems Engineering Team, the consultant shall perform the following tasks:

- Provide engineering support during the civil infrastructure design process, including creating drawings and CAD models to be used in construction
- Update and maintain existing technical drawings including maintenance of a drawings database (BIM360)
- Review designs to ensure they meet industry standards, including building codes and applicable regulations

- Create layouts of rooms or civil structures that include measurements, drawings, and other information about the design
- Working with the CTAO architect and engineers, create computer models of structures using specialized software such as AutoCAD and BIM
- Develop documentation for the construction project, including floor plans and renderings of proposed designs
- Assist the issuance of technical specifications for civil construction contracts
- Support the development of Civil Inspections and QA plans as well as on-site inspections

The consultant shall have an excellent command of English (written and spoken).

## 2.2. Location and Travel

Depending on the physical location of the consultant, the work shall be performed either in home office or at one of the CTAO offices in Bologna (Italy), La Palma (Spain), or in Chile. Depending on the tasks, visits to the Project Office in Bologna (Italy) might be necessary.

The consultant may be expected to travel to the observatory sites, if necessary, for the performance of the design and engineering tasks. Travel cost will be borne by CTAO; Travel Regulations of CTAO will apply.

The duration of the contract will be 1 (one) year, eventually renewable only at CTAO's discretion for another year.

## 3. General information

### 3.1. Timeline

Milestone	Indicative date
Deadline for request for clarifications:	20.11.2023– 23:00*
Response to req. for clarifications by:	24.11.2023
Deadline for Submission of Proposals:	<b>01.12.2023</b> - 23:00*

\*all times Central European Time (CET)

These dates may be subject to change; any change will be promptly communicated to all suppliers. CTAO reserves the right to cancel the procurement procedure at any time and it is not obliged to award the contract.

### 3.2. Clarifications

Any request for clarification should be submitted in writing by email, to the following contact address: [ctao-procurement@cta-observatory.org](mailto:ctao-procurement@cta-observatory.org)

All responses, which are considered by CTAO to be of a substantive nature, will be sent in anonymous way to all applicants invited to submit a proposal. Any questions that are of a sensitive nature must be clearly identified as such on submission.

### 3.3. Applicable Law

This Request for Proposals is governed by EU Procurement Directive n. 24/2014.

### 3.4. Canvassing and non-collusion

CTAO reserves the right to disqualify, without prejudice to any other civil remedies available to CTAO and without prejudice to any criminal liability which such conduct by a supplier may attract, any supplier or consortium member who, in connection with this procurement:

- a) offers any inducement, fee or reward to staff members of CTAO
- b) contacts any staff member of CTAO about any aspect of this request in a manner not permitted by this document
- c) fixes or adjusts her/his submission by or in accordance with any agreement or arrangement with any other applicant or consortium member (other than its own consortium members);
- d) enters into any agreement or arrangement with any other supplier or potential supplier or consortium member of any other supplier or potential supplier to the effect that it shall refrain from making a submission or as to the conditions of any submission
- e) causes or induces any person to enter such agreement as is mentioned above or to inform the supplier or a consortium member of the supplier of the amount or approximate amount of any rival submission
- f) canvasses any person in connection with this document who is not one of its own consortium members or one of its own team
- g) offers or agrees to pay or give or does pay or give any sum of money, inducement or valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done in relation to any other submission or proposed submission.

## 4. Submission

### 4.1. Language

The proposal, all correspondence and documents related to the tender exchanged by the tenderer and CTAO must be in English.

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## 4.2. Submission

Costs incurred to prepare a proposal must be borne solely by the tenderer. Nothing contained within this RFP is indicative of intent by CTAO to reimburse the tenderer, in whole or in part, for any costs associated with preparation, submission, or presentation of proposals.

The proposal submitted must remain valid for a period of 60 (sixty) days after the submission deadline.

## 4.3. What to submit

Proposals shall contain the following documents:

- 1) **Identification Form (Annex I)**, duly filled in and signed
- 2) **Declaration of Honour on Exclusion and Selection criteria (Annex II)**, duly filled in and signed
- 3) **Technical Proposal Form (Annex III)**, duly filled in and signed, including:
  - If the applicant is a natural person: CV of the consultant
  - If the applicant is a legal person: i) a presentation of the company **and** ii) CV of the individual proposed as a Consultant.
  - Reference list of projects carried out over the last 5 years showing the required specific experience.

The Technical Proposal shall not include any price or financial information. A Technical Proposal containing material financial information shall be declared non-responsive.

- 4) **Financial Proposal Form (Annex IV)**, duly filled in and signed.

The financial proposal shall specify a total lump sum amount in EUR for one year. Prices shall include all charges, overhead and profit. The Consultant will be responsible for meeting all tax and social liabilities arising out of the Contract. Eventual VAT shall be indicated separately.

The total sum, net of VAT (which will be indicated separately when billing) and other taxes and charges, shall be considered as the offered price. Where there is a discrepancy between the amount in words and the amount in figures, the amount in words shall prevail.

Payment under the Contract will be made in EUR. A price adjustment provision for remuneration rates for (Germany-based) inflation is going to be included in the final Contract.

All pages of the forms must be returned within the proposal submission: please do not remove any pages. Proposals containing changes or additions will be excluded from evaluation.

## 4.4. How to submit

Applicants must send an email, including all the required forms duly completed, to the following email address: [ctao-procurement@cta-observatory.org](mailto:ctao-procurement@cta-observatory.org)

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All communications between applicants and CTAO are to be made only through the abovementioned email address.

## 5. Selection process

The evaluation of proposals submitted will be carried out in successive steps:

- 1) Administrative requirements check.
- 2) Verification of non-existence of exclusion grounds.
- 3) Assessment of compliance to selection criteria.
- 4) Evaluation of technical and financial proposal.

Proposals that are excluded due to invalidity, the existence of exclusion grounds, or because they do not meet the eligibility requirements will not be taken forward in the evaluation.

### 5.1. Administrative Requirements

Verification of the validity of the Proposal: proposals will be excluded from the evaluation, for example, if:

- they were received after the deadline
- they do not include the documentation requested initially or by follow-up request
- changes or additions have been made to the tender documents.

### 5.2. Exclusion Grounds

Suppliers shall be excluded from participation where:

- a) They (or, in case of legal person, a member of their administrative, management or supervisory body) have been convicted by a final judgment relating to:
  - participation in a criminal organisation
  - corruption
  - fraud
  - terrorist offences
  - money laundering or terrorist financing
  - child labour and other forms of trafficking in human beings
- b) They are in any of the following situations:
  - in breach of obligations relating to the payment of taxes/social security contributions
  - bankrupt or subject of insolvency or winding-up proceedings
  - guilty of grave professional misconduct, which renders their integrity questionable
  - have entered into agreements with other economic operators aimed at distorting competition

- where a conflict of interest cannot be effectively remedied by other less intrusive measures
- where a distortion of competition from the prior involvement of the economic operators in the preparation of the procurement procedure cannot be remedied by other, less intrusive measures
- have shown significant or persistent deficiencies in the performance of a substantive requirement under a prior public contract, a prior contract with a contracting entity or a prior concession contract which led to early termination of that prior contract, damages or other comparable sanctions
- have been guilty of serious misrepresentation in supplying the information required for the verification of the absence of grounds for exclusion or the fulfilment of the selection criteria, have withheld such information or are not able to submit the supporting documents required
- have undertaken to unduly influence the decision-making process of the contracting authority, to obtain confidential information that may confer upon them undue advantages in the procurement procedure or to negligently provide misleading information that may have a material influence on decisions concerning exclusion, selection or award.

### 5.3. Selection Criteria

#### I. Technical and professional ability

The consultant should have at least 10 years of experience with civil and building projects in an international environment, including:

- Use of AutoCAD 3d (advanced level) and ideally Revit
- Use of the BIM360 archive system
- Knowledge of European and/or Chilean civil construction norms, standards, and practices
- Design and construction of elements such as foundations and reinforcement details, cable trenching, roads, buildings for storage, workshops and operations, infrastructure services such as water and communications
- Very good command of English (speaking and writing); knowledge of Spanish is an asset
- Good document drafting skills
- Carrying out of inspections and participation in acceptance reviews
- Ability to write technical documents including scope of work, civil and building specifications.

#### II. Suitability to pursue the professional activity

The consultant must:

- Have a degree at Civil Engineering technician level or higher.
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- Provide proof of his formal education through a certificate from the relevant educational institute.

### III. Economic and financial standing

The consultant (in case of legal persons, the company) must have:

- A valid professional risk indemnity insurance for an amount of no less than €120.000 Euro.

CTAO reserves the right to ask for all or part of the supporting documents at any moment where it considers this necessary in view of the proper conduct of the procedure and it will request the successful supplier to provide relevant evidence.

### 5.4. Technical and Financial evaluation

Proposals submitted, that are declared eligible given the absence of any exclusion grounds and that meet the selection criteria, are assessed on a technical and financial level. The evaluation panel shall:

- evaluate the technical proposal applying the evaluation criteria, sub-criteria, and weightings specified under paragraph 6.1 below and, once finished,
- evaluate the financial offer applying the method and formula specified under paragraph 6.1 below.

## 6. Award of the Contract

### 6.1. Award criterion

Eligible proposals will be assessed against the following award criterion: **most economically advantageous tender**.

The most economic advantageous tender shall be determined on the basis of the proposal offering the best price-quality ratio. The award decision will be based on the following ratio technical/financial proposal: 70/30.

**Technical proposals** will be evaluated according to the following criteria and weightings:

	#	Evaluation Criteria	Max points
QUALITY (max 70/100)	1	Proved technical knowledge, project experience and technical ability through use of AutoCAD.	50/70
	a	Profound knowledge of AutoCAD (3D)/Revit. excellent – 20 points good – 12 points fair – 5 points	20/50
	b	Knowledge of applicable European and/or Chilean civil construction standards.	15/50

		excellent – 15 points good – 8 points fair – 3 points	
	c	Minimum 10 years of experience in large construction projects.  excellent – 15 points good – 8 points fair – 3 points	15/50
	2	Competences	20/70
	a	Command of English (spoken and written), knowledge of Spanish  fluent (level C1-C2) – 7 points good (level B2) – 5 points fair (level B1) – 1 point  Knowledge of Spanish – 3 points	10/20
	b	Competence in the use of AutoCAD or equivalent architectural software.  excellent – 10 points good – 8 points fair – 2 points	10/20
FINANCIAL (max 30/100)		Financial proposal	30/100

Scoring range	Description
<b>0</b>	The consultant does not meet the required quality. Failure to properly address issues, considerable reservations on the consultant's experience and capacity to meet the requirements.
<b>Fair</b>	Minor reservations about the consultant's ability to meet the requirements.
<b>Good</b>	Demonstration by the consultant to fully meet the requirements.
<b>Excellent</b>	Very high level of confidence in the consultant's experience and capacity to meet requirements. Identification of factors that may offer added value.

Once the technical evaluation has been completed, the **financial proposal** will score points in function of the following formula:

$$P_s = (P_{min}/P_0) \times 30$$

where:

- $P_s$  = Price Score,
- $P_{min}$  = the price of the lowest offer received,
- $P_0$  = the price of the offer being considered,
- 30 = the maximum number of points that can be awarded.

The tenderer whose proposal achieves the highest total score for quality and price will be ranked as first and will be awarded the contract.

By submitting the Proposal, the tenderer accepts CTAO General Terms and Conditions.

## **Annexes list**

- I. IDENTIFICATION OF THE TENDERER form
- II. DECLARATION ON HONOUR form
- III. TECHNICAL PROPOSAL form
- IV. FINANCIAL PROPOSAL form
- V. CTAO GENERAL TERMS AND CONDITIONS