

# **Surat Municipal Corporation**

Expression of Interest (E.O.I) for "Supply and commissioning of robotic systems capable of inspecting water supply pipelines to find contamination and leakages with diameters ranging from 75mm to 600mm in water, along with Operation & Maintenance (O&M) support for 3 years and the setup of an AI-enabled dashboard for data analysis, management, asset mapping, and reporting in SMC"

# **Hydraulic Department**

EOI REF. : DMC/Hyd/EOI/01/2025-26

September-2025

# **Contents**

Noti	ice Inviting Expression of Interest (EOI)	3
1.0	Disclaimer	4
2.0	Introduction and Background	5
3.0	Description of EOI Process	6
4.0	Scope of Work	6
5.0	General Information	8
5.	.1 Eligibility Criteria	8
5.	.2 Important instructions to Agency/Consultant	10
6.0	Information to be provided in the EOI	11
7.0	Instructions to Applicants	11
A	vailing EOI Documents	11
Co	Completeness of the EOI Response	11
E	OI Preparation Cost	11
Sı	ubmission of EOI	12
Lá	ate Submission of Proposal for EOI	12
La	anguage of Bids	12
Ev	valuation of EOI	12
K	Yey Suggestions	12
N	No obligation to issue an RFT	12
Ri	Right to cancel the EOI Process	12
ANN	NEXURE-A	13
Aı	pplication Format : Cover Letter	13
ANN	NEXURE-B	15
Fo	ormat for submission of offer/ response to the EOI	15

# **Notice Inviting Expression of Interest(EOI)**

Expression of Interest (EOI) for Deployment of Robotic Inspection Technology to Detect Contamination & Leakage in Water Supply Pipelines In SMC.

## EOI REF.: DMC/Hyd/EOI/ 01/2025-26

This EOI Document is being issued by Hydraulic Department of Surat Municipal Corporation.

Purpose of this EOI Document is to seek from experienced agencies, their interest in " "Supply and commissioning of robotic systems capable of inspecting water supply pipelines to find contamination and leakages with diameters ranging from 75mm to 500mm in water, along with Operation & Maintenance (O&M) support for 3 years and the setup of an AI-enabled dashboard for data analysis, management, asset mapping, and reporting in SMC"

Potential bidders are advised to study this EOI Document carefully before submitting their Expression of Interest (EOI) received in response to this notice shall be utilized to firm up tender specifications and shortlist parties expressing interest for the said purpose. This EOI document is not transferable. Surat Municipal Corporation reserves the right to accept or reject any EOIs received against this notice at any given time without assigning any reasons and without prejudice.

1.	Date of uploading of EOI notice on website	Dt.04/09/2025
2.	Date and time for start of download of this	Dt.04/09/2025
	document	
3.	Last date of receiving EOI	Dt.23/09/2025
	through RPAD/ Speed Post (Indian post only)	Upto18:00Hrs.(IST)
	Physical submission of Demand draft in original for	On all the working days between
	Tender Fee & EMD by RPAD / Speed post (through	Dt.04/09/2025 to 23/09/2025
	postal authority only) so as to reach to	From 11.00 Hrs. TO 17.00 Hrs,
	Address:	
	The Chief Accountant,	
	Surat Municipal Corporation	
	Gordhandas Chokhawala Marg,	
	Muglisara, Surat-395003, Gujarat, INDIA	
4.	Contact details:	Email: exen.hydraulic@suratmunicipal.gov.in
		Phone No.+91 9714273799
5.	E.O.I. Fees (Non Refundable)	Rs.3600+18% GST= <b>Rs.4248.00</b>
6.	EMD	Rs.2,50,000.00
7.	Website to download EOI Document	https://www.suratmunicipal.gov.in

#### Note:

E.O.I. fees and EMD is required for submission of E.O.I. towards the cost of E.O.I. documents by pay
order or by demand draft of any nationalized bank, in favour of "The Commissioner, SURAT
MUNICIPAL CORPORATION" payable at Surat only.

However, offers need to be sent in <u>sealed envelope</u> clearly mentioning <u>the work EOI REF.</u>: <u>DMC/Hyd/EOI/01/2025-26</u> on top of the envelope by RPAD/ Speed Post (through Indian post only) at the below-mentioned address.

#### 1.0 Disclaimer

Expression of Interest (EOI) contains information considered relevant to seek interests and shortlist experienced agencies, their interest in "Supply and commissioning of robotic systems capable of inspecting water supply pipelines to find contamination and leakages with diameters ranging from 75mm to 500mm in water, along with Operation & Maintenance (O&M) support for 3 years and the setup of an AI-enabled dashboard for data analysis, management, asset mapping, and reporting in SMC"

Information provided in this EOI Document may pertain to a wide range of subjects, some of which may depend on interpretation of law. Applicants are advised to conduct their own independent assessments, investigations and analysis to gather adequate information they consider relevant.

Furthermore, information provided herein is not intended to be an exhaustive account of statutory or commercial requirements and should not be regarded as a complete or authoritative statement of law. Surat Municipal Corporation has no liability under any law, statute or by any rule and/or regulation made there under, tort, equity, principles of restitution, unjust enrichment or otherwise for any loss, damage, costs or expenses which may arise from or be incurred or suffered on account of anything contained in this EOI Document or otherwise, including accuracy, adequacy, correctness, reliability or completeness of information in the EOI Document. Any assessment, assumption, statement or information contained herein or deemed to form part of this EOI Document or arising in any way in this subject shall not create any liability on Surat Municipal Corporation.

Surat Municipal Corporation reserves the right to change any or all conditions or information in this EOI Document by way of revision, deletion, updation or annulment through issuance of appropriate corrigendum. Surat Municipal Corporation will neither entertain nor be liable for any claim as to costs and expenses in relation to the preparation and submission of EOI applications in terms of this EOI Document. Information contained in this EOI Document or subsequently provided to the prospective applicants, verbally or in documentary or any other form by an authorized representative of Surat Municipal Corporation. In this case Surat Municipal Corporation shall be treated as confidential and reproduction, dissemination or use for any other purpose is prohibited. This EOI Document is only a prospective exploration and does not bind Surat Municipal Corporation to select or short-list applicants for a firm commitment at any time.

# 2.0 Introduction and Background

Surat Municipal Corporation (SMC) invites Expression of Interest (EOI) from eligible and experienced firms for "Supply and commissioning of robotic systems capable of inspecting water supply pipelines to find contamination and leakages with diameters ranging from 75mm to 600mm in water, along with Operation & Maintenance (O&M) support for 3 years and the setup of an AI-enabled dashboard for data analysis, management, asset mapping, and reporting in SMC"

The objective is to enhance the detection of contamination, leakages, blockages, and structural defects within pipelines and enhance maintenance efficiency and prevent failures.

Surat, one of the fastest-growing cities in India and an important economic hub in Gujarat, is located on the banks of the Tapi River. With a population exceeding 7 million and expanding municipal boundaries, the city has undergone rapid urbanization and industrial development, necessitating a modern and resilient urban drainage system.

In 2020, Surat Municipal Corporation (SMC) underwent a significant city boundary extension, incorporating newly urbanizing areas from the peripheral regions into the municipal limits. This expansion has placed additional demand on the existing drainage infrastructure, much of which was not originally designed to handle the load from these newly added zones, particularly in the North, East, and West Zones.

Surat Municipal Corporation (SMC) is committed to providing a safe, reliable, and uninterrupted potable water supply to over 85 lakh citizens across all its zones. The city's water distribution network spans more than 3200 kilometers and operates under a complex infrastructure consisting of water treatment plants, elevated service reservoirs (ESRs), underground sumps, and an Transmission/Distribution/Rising Main pipeline network.

Ensuring water quality at every consumer tap remains a priority for SMC, especially in the context of urban expansion, network aging Especially in Old City Area.

Despite routine sampling and water quality monitoring procedures, SMC faces **significant challenges in tracing the exact source of contamination**, especially when complaints or outbreak signals arise in certain pockets. Traditional methods such as manual inspections, sample collection from valves and taps, and pipeline excavation are **time-consuming**, **labor-intensive**, **and often inconclusive** in pin pointing the source of contamination.

Key challenges include:

- Lack of real-time detection
- Difficulty in pinpointing contamination source
- Disruption to water supply during inspection
- Limited access to inaccessible areas
- No visual evidence.

To address these challenges, Surat Municipal Corporation intends to adopt advanced robotic inspection technologies capable of navigating live water pipelines and providing high-resolution internal imaging, real-

time data logging, and geo- tagged detection of contamination sources—without service disruption. This approach is expected to strengthen the city's ability to ensure water safety and improve response times in emergency scenarios.

# 3.0 **Description of EOI Process**

The purpose of this Expression of Interest (EOI) is to invite applications from experienced and qualified firms/Agency for Supply and commissioning of robotic systems capable of inspecting water supply pipelines with diameters ranging from 75mm to 500mm in water, along with Operation & Maintenance (O&M) support for 3 years and the setup of an Al-enabled dashboard for data analysis, management, asset mapping, and reporting in Surat City.

Through this EOI, Surat Municipal Corporation (SMC) seeks to identify competent firms with proven expertise inrobotic water pipeline inspection technology to demonstrate their capability in identifying the source of contamination within live water pipelines.

Subsequent to this EOI and short listing of potential applicants, it is proposed to issue a Request for Tender (RFT) to award a contract or enter into an Agreement. One or more pre-bid conferences along with proposed and detailed presentation/demonstration may be held if necessary to further explore and incorporate ideas and suggestions of potential bidders. Surat Municipal Corporation however does not, in any manner whatsoever warrant or represent that it will subsequently proceed to invite an RFT.

# 4.0 Scope of Work

To engage experienced agencies for the supply, commissioning, and maintenance of robotic systems capable of inspecting water pipelines (75mm to 600mm diameter) and to find contamination and leakages to implement an Al-enabled dashboard for data analysis, asset mapping, and reporting for the Surat Municipal Corporation (SMC).

#### 4.1 Supply and Commissioning of Robotic Systems

- Supply of robotic systems suitable for inspecting pipelines ranging from 75mm to 500mm in diameter under water conditions.
- Robotic systems should include necessary cameras, sensors, lights, and locomotion systems adaptable to varied pipe materials and configurations.
- Robots must be capable of identifying and recording structural defects, blockages, corrosion, leakages, and other anomalies.
- Commissioning includes:
- On-site testing and trial runs in live water pipelines.
- Calibration and configuration of robotic systems.
- Demonstration of operational capabilities to SMC officials.

- Identification and geo-tagging of contamination points with real-time data capture.
- Robotic system should function in pressurized and non-pressurized pipelines.
- Minimum internal pipeline diameter compatibility: [mention, e.g., 75 mm].
- Capability to navigate bends, junctions, and varying gradients.
- Non-disruptive to water supply during testing (if possible).
- Submission of final inspection report with GIS tagging, image/video data, and contamination analysis.

#### 4.2 Training & Knowledge Transfer

- Comprehensive training to SMC personnel for operating robotic systems and dashboard.
- Provide user manuals, SOPs, and troubleshooting guides.
- Capacity-building workshops or sessions for SMC technical staff.

#### 4.3 Operation and Maintenance (O&M) Support – 3 Years

- Full O&M of robotic systems for 3 years including:
- Routine maintenance, repair, and calibration.
- On-call troubleshooting support.
- Availability of spare parts and consumables.
- Timely software/firmware updates for the robotic systems.
- Deployment of gualified technicians for periodic inspections and preventive maintenance.

#### 4.4 AI-Enabled Dashboard Development and Setup

- Design, develop, and deploy a centralized AI-based dashboard for:
- Data acquisition from robotic inspections (images, videos, sensor data).
- Automated defect detection using AI/ML algorithms.
- Pipeline asset mapping and visualization.
- Real-time reporting and generation of actionable insights.
- Historical data storage, retrieval, and analytics.
- The dashboard should have:
- Role-based access for different user levels.
- Integration with SMCs existing systems (if applicable).
- Web-based interface accessible from desktop and mobile.

#### 4.5. Deliverables

- Delivery and commissioning of robotic inspection units.
- Technical documentation, inspection protocols, and user guides.
- Functional Al-enabled dashboard with training and data import features.
- O&M reports, service logs, and performance reports throughout 3-year period.
- Final report summarizing inspection outcomes and recommendations.

#### 4.6 Compliance & Standards

- All equipment and systems shall conform to international standards for pipeline inspection technologies.
- Data privacy and cybersecurity protocols must be integrated into the dashboard platform.
- Compliance with SMC and Government of India regulations for water infrastructure projects.

#### 4.7. Support during Tendering and Implementation

Provide technical support to SMC during tendering of works

#### 5.0 General Information

## **5.1 Eligibility Criteria:**

- 1. Legal Status and Registration
- The bidder must be a legally registered entity (Company, LLP, Partnership, or Proprietorship).
- Must be registered under applicable laws in India
- Joint ventures (JVs) not permitted

## 2. Experience Criteria

- The bidder must have minimum 3 years of experience in:
- Supplying and commissioning robotic systems for pipeline inspection.
- Handling robotic inspection projects in pressurized or live water pipelines.
- The bidder must have completed at least three (3) similar projects in the last 5 years for government/ULBs/PSUs.

Similar projects refer to supply/operation of robotic pipeline inspection systems with AI or data analytics elements.

# 3. Technical Capability

- The bidder must own or have access to the required robotic equipment suitable for inspecting 75mm to 500mm pipelines.
- The bidder must demonstrate in-house or partnered capability in Al/data analytics dashboard development.
- The proposed robotic systems must support live water inspection, high-resolution video capture, defect detection, and other relevant features.

## 4. Operation & Maintenance Capacity

- The bidder must have a dedicated team or partners for providing O&M services for at least 3
  years.
- Must have qualified technical staff for preventive and corrective maintenance of robotic systems.

#### 5. Financial Criteria

- Average annual turnover of at least 60 lacs in the last 3 financial years (value to be decided based on project scale).
- Submission of audited financial statements for the last 3 years.

#### 6. Local Presence

 Preference may be given to agencies with an existing local presence or authorized service partner in Gujarat/SMC jurisdiction, or commitment to establish one before the commencement of work.

#### 7. Certifications and Standards

- The bidder should comply with relevant ISO standards such as:
- Necessary certifications for equipment safety and water quality compliance (e.g., IS 10500:2012
- Robotic systems should meet IP-rated protection standards, and safety standards applicable to potable water environments.

## 8. Blacklisting/Debarment

 The bidder should not be blacklisted or debarred by any government body or public sector under taking in India or abroad.

## A self-declaration on non-blacklisting must be provided

- a) The applicant shall provide evidence that he has successfully completed or substantially completed similar works within the last seven years completing on 30/06/2025. For this, the Certificate from the employer not less than the post of Executive Engineer shall be submitted along with the application incorporating clearly the Contract value-billing amount, date of commencement of works, satisfactory performance of the contractor and any other relevant information. The works completed / substantially completed during the current financial year will also be considered for counting the particular construction experience.
- b) Average Annual financial turnover during the last 3 years, ending 31st March 2025, should be at least 60 Lacs during last three financial years. Duly attested copy from the statutory auditor/ chartered accountant has to be provided.

# **5.2 Important instructions to Agency/Consultant:**

The following instructions are to be carefully read and strictly followed by all interested agency/firms submitting an Expression of Interest (EOI) for robotic system to find contamination in water supply network for Surat City:

- 1. They must ensure they meet all eligibility criteria as stated in the EOI. Submissions from firms not meeting the criteria will be summarily rejected.
- 2. EOI submissions must follow the format and content requirements specified in the EOI document.
- 3. All documents must be submitted in English and must be properly signed and stamped by the authorized signatory.
- 4. The EOI must be submitted on or before the deadline mentioned in the document. Late submissions will not be accepted under any circumstances.
- 5. The EOI shall be submitted in a sealed envelope, super-scribed as: "EOI for robotic system to find contamination in water supply network
- 6. All information provided by SMC must be treated as confidential.
- 7. Agency shall not use this information for purposes other than preparation of their EOI or subsequent RFP submission.
- 8. Submission of the EOI does not oblige SMC to shortlist any agency or award the contract.
- 9. SMC reserves the right to reject any or all EOIs without assigning any reason.
- 10. SMC reserves the right to disqualify a consultant under the following conditions:
  - Misrepresentation or falsification of information
  - Submission of incomplete or non-compliant documents
  - Blacklisting by any Government agency
  - Conflict of interest with ongoing or past projects
- 11. All costs incurred by the agency in preparing and submitting the EOI shall be borne by the consultant.

12. No reimbursement shall be made by SMC for any such expenses.

# 6.0 Information to be provided in the EOI

- a) Applicant must submit all information as requested attach in relevant documents.
- b) Applications must be signed by the profession/firm/organization/Agency/Consultant.

# 7.0 **Instructions to Applicants**

The Surat Municipal Corporation invites eligible potential Agency for Supply and commissioning of robotic system to inspect water supply line for Surat City and submits the EOI as specified in this Expression of Interest (EOI) document. Only one application shall be entertained from one party.

# **Availing EOI Documents**

The EOI Document can be downloaded from the website as per schedule indicated in Notice Inviting EOI without any charges.

# **Completeness of the EOI Response**

The Agency is advised to study all instructions, forms, terms, requirements and other information in the EOI documents carefully. Submission of bid shall be deemed to have been done after careful study and examination of the EOI document with full understanding of its implications. The response to this EOI should be full and complete in all respects. Incomplete or missing information as sought in this EOI document or submission of a proposal not substantially responsive to the EOI document is liable to be rejected. Surat Municipal Corporation will not entertain or enter into any correspondence on such incomplete applications.

## **EOI Preparation Cost**

The Agency is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of its Application, in providing any additional information required by Surat Municipal Corporation to facilitate the application process. Surat Municipal Corporation will in no case be responsible or liable for any costs connected in any way to submission of an EOI application by a party regardless of the conduct or outcome of the bidding process. All information submitted by the Applicant in connection with this EOI application shall be the property of Surat Municipal Corporation.

#### Submission of EOI

Physical (hardcopy) applications shall be eligible and will be opened for short listing/ evaluation. The Application and all enclosed documents shall be typed and the Applicant's signature attached to each page. The Applicant shall submit all supporting documents in the format as prescribed in the EOI Document along with suggested document or evidence with the Application. Surat Municipal Corporation reserves the right to accept or reject any or all of the Applications received without assigning any reason without prejudice.

# **Late Submission of Proposal for EOI**

EOI application shall be sent within the time limits as indicated in the 'Notice for inviting EOI'. However, in case of any delay, final decision lies with the authority inviting EOI.

# **Language of Bids**

The responses prepared by the Agency/Consultant and all correspondence and documents relating to the bids exchanged by the Agency/Consultant and Surat Municipal Corporation, shall be in English language only.

#### **Evaluation of EOI**

All information provided in the EOI application shall be considered for the purpose of evaluation. Surat Municipal Corporation may invite eligible Applicants to furnish more information or for discussion.

## **Key Suggestions**

The Agency is free to offer their views and suggest changes in the pre-bid queries only to any clause in this document. However, Surat Municipal Corporation reserves the absolute right to accept or reject any or all opinions of any or all applicants without assigning any reason.

## No obligation to issue an RFT

Surat Municipal Corporation shall be under no obligation to issue a Request for Tender at any later stage after opening of EOI applications despite the intent to enter into contracts as envisaged here in at a later stage through issue of RFT.

# **Right to cancel the EOI Process**

Surat Municipal Corporation reserves the right to cancel or close this EOI process at any stage without assigning any reasons whatsoever and will not be liable to compensate any Applicant on any grounds whatsoever. The Applicants shall not be entitled to any refund of cost of documents or any other costs incurred by him to participate in this EOI process.

Sd/-

Executive Engineer
Hydraulic Department
Surat Municipal Corporation

# **ANNEXURE-A**

# **Application Format : Cover Letter**

To, DD/MM/YYYY

Executive Engineer,

Hydraulic Department,

Surat Municipal Corporation, Surat

**Sub.**: Submission towards Expression of Interest ("**EOI**") for "Supply and commissioning of robotic systems capable of inspecting water supply pipelines to find contamination and leakages with diameters ranging from 75mm to 600mm in water, along with Operation & Maintenance (O&M) support for 3 years and the setup of an AI-enabled dashboard for data analysis, management, asset mapping, and reporting in SMC"

**Ref.:** Expression of Interest (EOI) (Online) Notice No. EOI REF.: DMC/Hyd/01/2025-26

Sir,

Having examined the EOI, the receipt of which is here by duly acknowledged, I / We offer to submit the EOI for the Project.

I/We agree and understand that, this EOI is non-binding and non-committal. Further, I/we confirm that neither Surat Municipal Corporation nor any of its employees, associates, affiliates or its agents shall be liable to me/us for any liability arising directly or indirectly from our participation in the EOI Process.

I/We further agree, understand and fully comprehend that Surat Municipal Corporation may in its absolute and exclusive discretion at any time; change, alter, replace, remove and/or cancel any or all part of the EOI Document or the Project. Surat Municipal Corporation may also abandon, call-off, alter, replace, and revise the Project. Furthermore, Surat Municipal Corporation is under no obligation or compulsion in any manner whatsoever to release or publish the RFT, it may also change or replace or cancel any or all part of the bidding process.

I/We submit hereto my/our EOI as per the requirements and details specified in the EOI Document. I/We confirm that the information contained in these submissions or any part thereof, including the appendices, and other documents and instruments delivered or to be delivered to Surat Municipal Corporation, are true, accurate, verifiable and complete. These submissions include all information necessary to ensure that the statements therein do not in whole or in part mislead Surat Municipal Corporation in its EOI Process.

I/We fully understand and agree to comply that on verification, if any of the information provided here

is found to be misleading during/ after the EOI Process, I/we are liable to be disqualified from the pre/post EOI Process.

I/We agree for unconditional acceptance of all the terms and conditions set out in the EOI Document and also agree to abide by this EOI for a period of **120 days** from the last date of online submission.

I/We agree that you are not bound to accept any EOI you may receive. I/We also agree that you reserve the right in absolute sense to reject all or any of the EOI received as per the EOI Document and Advertisement.

It is hereby confirmed that I/We am/are entitled to act on behalf of my/our firm and empowered to submit this document as well as such other documents, which may be required in this connection.

Signature
Designation of Authorized Signatory:[•]
Address of the Agency :[•]
Telephone & Fax of the Agency :[•]
E-mail address of the Agency :[•]

# **ANNEXURE-B**

# Format for submission of offer/response to the EOI

- 1. Applicant details-
- a) Name of the Agency/Firm
- b) Authorized signatories-
- c) Contact details-
- d) Registered or local office address
- e) Passport size Photograph
- 2.0 Profile of the application-Brief description on qualifications, work experience etc.
- 3.0 Documents to demonstrate the work experience.
- 4.0 Description/details of similar assignments carried out previously.

Following details for each assignment must be provided with supportive documents:

- a) Name of the work.
- b) Name of the client and their contact details.
- c) Brief description of scope of assignment.
- d) Components of assignment.
- e) Any other details

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