



EoI for Design, Development, Manufacturing & Supply
of Electronic Systems for Defence and Aerospace Applications



BEML LIMITED

**BEML Soudha,
23/1, 4th Main, Sampangiramanagar, Bengaluru – 560027**

**Invitation for Expression of Interest (EoI)
from Indian companies (the Prospective Collaborator) for
Design, Development, Manufacturing & Supply of Electronic Systems for Defence
and Aerospace Applications (Ground-based and Airborne).**

Reference No: CTPAM/EoI/ES/2025

Due closing date: 25.03.2025

EoI response mail ID: bemleoi@bemltd.in

**Contact for
Clarifications: Gp. Capt. Chakrapani Mandela (Retd.),
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Issued by

BEML LIMITED

(Schedule 'A' Company under Ministry of Defence, Govt. of India)



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SECTION – 1

1. DISCLAIMER

The information contained in this Expression of Interest (Eol) document provided to the Prospective Collaborator(s), by or on behalf of BEML Limited or any of its executives or advisors, is provided to the Prospective Collaborator(s) on the terms and conditions set out in this Eol document and all other terms and conditions subject to which such information is provided.

- 1.1 The purpose of this Eol document is to provide the Prospective Collaborator(s) with information to assist the formulation of their proposal. This Eol document does not purport to contain all the information each Prospective Collaborator may require. This Eol document may not be appropriate for all persons, and it is not possible for BEML Limited, its employees or advisors to consider the business/investment objectives, financial situation and particular needs of each Prospective Collaborator who reads or uses this Eol document. Each Prospective Collaborator should conduct his own investigations and analysis and should check the accuracy, reliability and completeness of the information in this Eol document and wherever necessary, obtain independent advice from appropriate sources.
- 1.2 BEML Limited, its employees and advisors make no representation or warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of the Eol document.
- 1.3 BEML Limited may, in its absolute discretion, but without being under any obligation to do so, modify, amend or supplement the information in this Eol document.
- 1.4 This Eol does not imply that BEML Limited, is bound to select and shortlist the Prospective Collaborator. Even after selection of suitable Prospective Collaborator, BEML Limited is not bound to proceed ahead with the Project with the Prospective Collaborator and at no circumstances, the Prospective Collaborator shall be responsible or liable for any commercial and consequential liabilities in any manner whatsoever.
- 1.5 The Prospective Collaborator(s) shall bear all costs associated with the preparation, technical discussion/presentation and submission of response/proposal against this Eol. BEML Limited shall in no case be responsible or liable for these costs regardless of the conduct or outcome of the Eol process.



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- 1.6** Canvassing in any form by the Prospective Collaborator(s) or by any other agency on their behalf shall lead to disqualification of their EoI.
- 1.7** Notwithstanding anything contained in this EoI, BEML Limited, reserves the right to accept or reject any application and to annul the EoI process and reject all applications, at any time without any liability or any obligation for such acceptance, rejection or annulment and without assigning any reasons, thereof. In the event that BEML Limited rejects or annuls all the applications, it may at its discretion, invite all eligible Prospective Collaborators to submit fresh applications.
- 1.8** BEML Limited reserves the right to disqualify any applicant during or after completion of EoI process, if it is found there was a material misrepresentation by any such applicant or the applicant fails to provide within the specified time, supplemental information sought by BEML Limited.
- 1.9** BEML Limited reserves the right to verify all statements, information and documents submitted by the applicant in response to the EoI. Any such verification or lack of such verification by BEML Limited shall not relieve the applicant of his obligations or liabilities hereunder nor will it affect any rights of BEML Limited.



SECTION – 2

2. SCHEDULE OF Eol PROCESS & CONTACT DETAILS

2.1 Schedule of Eol process:

The schedule of activities during the Eol Process shall be as follows:

Sl. No.	Description	Date
01	Issue of Eol Document	4 th March 2025
02	Last date of Submission of Eol response/proposal	25 th March 2025

2.2 Contact details related to Eol:

Gp. Capt. Chakrapani Mandela (Retd.),
General Manager
Corporate Technology Planning & Alliance Management
BEML Soudha, BEML Ltd.,
Bengaluru, Karnataka, INDIA
Email: chakrapani.m@bemlltd.in
Mobile: +91 97315 61710

2.3 In case any amendment/corrigendum to this Eol is issued, it shall be notified only at www.bemlindia.in



SECTION – 3

3. ABOUT BEML LIMITED & OBJECTIVES OF THE EoI

3.1 ABOUT BEML LIMITED:

- 3.1.1** BEML Limited is a leading multi-technology and multi-location company under the Ministry of Defence operating under three major Business verticals viz., Mining & Construction, Defence & Aerospace and Rail & Metro which are classified into 12 SBU's & 2 Micro SBU's. The three verticals are serviced by manufacturing units at four locations viz Bengaluru, Kolar Gold Fields (KGF), Mysuru and Palakkad.
- 3.1.2** BEML offers high-quality products for diverse sectors of economy such as Defence, aviation, coal, mining, steel, limestone, power, irrigation, construction, road building, metro & railways.
- 3.1.3** BEML has emerged as the forerunner of heavy engineering industry with a track record of growth and revenues for over Six decades. For further details please visit our website www.bemlindia.in

3.2 OBJECTIVES OF THE EoI

- 3.2.1** BEML Limited is looking for Prospective Collaborator(s), who are willing to be associated with BEML Limited for design, development, manufacture, testing and evaluation & supply of electronic systems for defence and aerospace (ground-based and airborne applications) related projects.
- 3.2.2** BEML Limited is looking for Prospective Collaborator(s) that pioneer in the following areas:
- i. Design Engineering of Control Systems
 - ii. Design Engineering of Navigation Systems
 - iii. Design Engineering of Sighting & Targeting Systems
 - iv. Design Engineering of Communication Systems
 - v. Embedded Software Development
 - vi. Development of software for custom GUI
 - vii. Power and Propulsion Electronics
 - viii. Payload and Warhead Electronics



SECTION – 4

4. SCOPE OF THE COLLABORATION

- 4.1** BEML is seeking Prospective Collaborator(s) for a strategic tie-up for design, development, manufacture, testing and evaluation & supply of electronic systems for defence and aerospace (ground-based and airborne applications) related projects, customer RFIs/RFPs/tenders, etc.
- 4.2** Prospective Collaborator(s) would be required to support BEML Limited during interactions with the various agencies in India for initial screening, participation in the customer RFI/ RFP / Tender and subsequent qualification process by way of deputing their experts and providing the required information and clarifications as required/sought by customer.
- 4.3** The outsourcing requirement/proposed scope of parties and specification for each project, customer RFIs/RFPs/tenders, etc., will be through definitive agreement(s) between the parties on case-by-case basis.
- 4.4** Prospective Collaborator(s) are required to confirm that in case of getting shortlisted as a result of this EoI process and being onboarded by definitive agreement for a project/customer RFP/tender, following support shall necessarily be provided to BEML Limited in order to enable BEML Limited to prepare and submit a techno-commercial bid to customers as per their terms in RFP / Tender (& other requirements as applicable) and also to successfully execute the contract in case of BEML Limited emerging as L1 bidder:
- 4.4.1** To provide costing elements required for preparation of BEML Limited offer against customer RFP/tender.
 - 4.4.2** To provide a price list with long term validity with Price Variation Clause for assemblies / subassemblies / components / spares / Manufacturer's Recommended List of Spares for 5 years, etc. for items to be sourced from Prospective Collaborator(s).
 - 4.4.3** Any other requirement felt necessary as per customer RFP/tender.
 - 4.4.4** Above mentioned requirements are only indicative in nature, however any other document/information/input required by BEML Limited for cost estimation and for preparation & submission of techno-commercial bid to customer shall have to be provided by the Prospective Collaborator(s).



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- 4.5** Prospective Collaborator(s) may also be required to enter into a long-term Supply Agreement and meet the expected delivery requirements and other Terms & Conditions of RFP / Tender to be issued by BEML Limited on cost basis.
- 4.6** Prospective Collaborator(s) should be willing to associate with BEML Limited and be an active participant for conducting the Field Evaluation Trials of developed electronic systems conducted by various agencies.
- 4.7** Prospective Collaborator(s) shall provide firm and irrevocable commitment to provide product support in terms of maintenance, materials and spares etc. for a minimum period of 15 years from the date of last supply to BEML Limited.
- 4.8** This EoI will be governed by DAP 2020 and Public Procurement Order Make in India order 2017 and its amendments.
- 4.9** On award of contract, Prospective Collaborator(s) will meet the Customers (i.e., MoD/DRDO/CSIR/ DPSU's etc) Contractual obligations on back-to-back basis as per DAP 2020 qualification criteria or mutually agreed terms & conditions in the definite agreement.



SECTION – 5

5. ELIGIBILITY CRITERIA

The following are the mandatory conditions to be fulfilled by the Prospective Collaborator(s) for responding to this Eol.

- 5.1 The Prospective Collaborator(s) must be registered in India as required by law with minimum ten (10) years of continuous operation up to the date of publication of this Eol.
- 5.2 The Prospective Collaborator(s) should have good understanding and credentials for building safety architectures as per EN standards for safety, reliability and maintainability. The Prospective Collaborator(s) should have executed at least two contracts relating to products for defence and aerospace (ground-based and airborne applications) related projects.
- 5.3 The Prospective Collaborator(s) should have worked at least two projects with embedded controllers which have been qualified as per MIL /JSS 55555 standards and have been working for last 5 years for defence and aerospace (ground-based and airborne applications) related projects.
- 5.4 Average annual revenue of the Prospective Collaborator(s) during the last 3 (Three) Financial years up to the year ending 31st March of 2024, should be at least Rs. 100.00 (One Hundred) Crores.
- 5.5 In exercise of Para 16 of Public Procurement Policy for Micro and Small Enterprises Order 2012, the condition of prior turnover and prior experience may be relaxed with respect to Micro and Small Enterprises provided that all the quality and technical specifications are met.
- 5.6 The Prospective Collaborator(s) should have supplied/executed defence and aerospace (ground-based and airborne applications) related projects with supply order from last 5 years. Along with the list of documentary proof consisting of Contract Order / Agreement, along with its completion report or certification from reputed clients about the work executed should be submitted.
- 5.7 In case the Prospective Collaborator is a consortium, a document signed by all the Consortium members stating the name of the leader of the Consortium and the same must be submitted along with a notarized copy of Consortium Agreement. If the response/proposal to Eol is submitted by the Consortium, the same Consortium without change of members shall continue till completion of the project. In case of



unavoidable circumstances, if any member of the consortium required to be changed or the constitution of the consortium is required to be changed, the same shall be done with prior written consent of BEML Limited.

Prospective Collaborator may submit the response/proposal to EoI either in the capacity as an individual Party or as a part of Consortium. However, any Prospective Collaborator or its member /director/Partner, who is Party to a response/proposal submitted against this EoI, shall not be directly or indirectly party to any other response/ proposal to this EoI.

- 5.8** If the Prospective Collaborator is a consortium, all the members in the consortium shall be liable for the entire scope of work and risks involved thereof to the entire contract value and as per law. The Prospective Collaborator shall accept the scope of work in its entirety and partly acceptance shall not be entertained and the response/proposal submitted in contradiction to the above shall be summarily rejected without giving any opportunity for any further clarification.
- 5.9** The Prospective Collaborator should be a registered entity with good reputation and should not be on the restricted list for arms import by MoD. Dealers/ distributors/ agents/ representatives are not eligible to participate in this EoI.
- 5.10** Lack of complete information or furnishing of false information related to eligibility criteria and the documents submitted will lead to disqualification of the Prospective Collaborator.
- 5.11** The Prospective Collaborator shall accept that BEML Limited shall have the sole right to market the product in India for MoD/DRDO/CSIR/DPSU's/ military/ MHA. The export of the Products manufactured in furtherance to this EoI shall be on mutual consent of the Parties.
- 5.12** The Prospective Collaborator shall agree that BEML Limited will be entitled to hold joint IP rights for all technologies developed for the projects under definite agreement/s in furtherance to this EoI.
- 5.13** The interested Prospective Collaborator shall fill the required fields & submit the Eligibility Criteria while responding to this EoI enclosed at [Annexure-2](#) with supporting document/ certificate/undertaking letter wherever applicable.



SECTION – 6

6. GENERAL TERMS & CONDITIONS

- 6.1** This Eol document is for Design, Development, Manufacturing & Supply of Electronic Systems for Defence and Aerospace (Ground-based and Airborne) Applications by the Prospective Collaborator does not have any relation with respect to any of the previous Eol / RFI / RFP, if any, floated for similar purpose/ activities.
- 6.2** This Eol document is not an offer and is issued with no commitment. BEML Limited reserves its right to withdraw/Cancel the Eol or change or vary or modify full or any part thereof at any stage.
- 6.3** BEML Limited reserves its right and discretion to disqualify any Prospective Collaborator, should it be so necessary at any stage and the Prospective Collaborator shall have no right to contest/challenge such decision of BEML Limited.
- 6.4** Timeline and sequence of events resulting from this Eol shall ultimately be determined by BEML Limited.
- 6.5** By submitting response/proposal in response to this Eol, Prospective Collaborator shall deemed to be acknowledged that it has carefully read all the terms & conditions of this Eol document, and has fully understood and accepted all the terms and conditions.
- 6.6** The interested Prospective Collaborator shall compulsorily fill up the following to this Eol document and submit along with all supporting documents.
- 6.6.1** Operational requirement as per [Annexure-1](#)
 - 6.6.2** Compliance to Eligibility Criteria as per [Annexure-2](#)
- 6.7** The response shall necessarily be accompanied with following details/documents:
- 6.7.1** Prospective Collaborator's profile with Management structure and Group information if any.
 - 6.7.2** Product Profile
 - 6.7.3** Product Technical details
 - 6.7.4** Reference list of customers
 - 6.7.5** Annual Audited financial reports for last three (03) Financial years.
 - 6.7.6** Any other information which is relevant to business and requirement of BEML Limited and would make the **interested** Prospective Collaborator relevant for long term mutually beneficial relationship.



- 6.8** The **interested** Prospective Collaborator shall mandatorily abide by the terms & conditions of this Eol.
- 6.9** The person signing the response/proposal to this Eol should have due written authorization from the Prospective Collaborator to sign the response/proposal with documents. Errors or corrections in the response/proposal need to be duly authenticated authorised representative/signatory of the Prospective Collaborator. Overwriting should be avoided. All pages of the response/proposal to this Eol need to be signed by the authorised representative/signatory. Copies of the credentials/ documents which are to be annexed must be self-attested and should bear the signature of the authorized signatory / representative and seal of the Prospective Collaborator. The Prospective Collaborator may be called upon to produce originals of all the information / documents submitted along with the response/proposal as and when required by BEML Limited.
- 6.10** Multiple proposals from the same Prospective Collaborator shall not be entertained and will be rejected.
- 6.11** BEML Limited at its discretion may inspect the Prospective Collaborator's works/office/reference site premises for the purpose of evaluation, as deemed necessary before selection of Prospective Collaborator. The decision of BEML Limited in this regard shall be final.
- 6.12** Any Prospective Collaborator which has been declared insolvent, bankrupted, debarred /blacklisted by Central/State Governments of India or by any entity controlled by Central/State Governments of India, and such status continues as on the date of submission of response/proposal to Eol, shall not be eligible to submit response/proposal to this Eol.
- 6.13** Prospective Collaborator shall submit responses/proposal pursuant to this Eol in accordance with the terms set forth herein, as may be modified, altered, amended and clarified from time to time by BEML Limited and all responses shall be submitted in accordance with such terms on or before the date specified in this Eol for submission of responses.
- 6.14** Prospective Collaborator, after successful selection and signing of definitive agreement for specific project, customer RFI/RFP/tender, etc., shall not participate either directly or through its dealers, agents, representatives etc. in any other similar RFQ/ tender / requirements (including their after-sales support requirement) of,



6.14.1 Government/ Quasi Government/ State Government, state run organizations.

6.14.2 Customers/firms, other than above in India & abroad, of BEML Limited

6.15 The response/proposal to Eol and all correspondences and documents related to the Eol response shall be in English language, provided that any printed literature furnished by the Prospective Collaborator may be written in another language, as long as such literature is accompanied by a translation of its pertinent passages in English language in which case, for purposes of interpretation of the bid, the English translation shall govern. Provided that in case the English translation is found to be incorrect at a later stage, BEML Limited will have right to take appropriate action against the Prospective Collaborator as may be deemed fit

6.16 The Selected Prospective Collaborator should not subcontract the work related to the agreed scope of work without prior written approval from BEML Limited.

6.17 The Selected Prospective Collaborator shall provide the number of resources available required for development of the work during different phases with necessary technical capabilities.

6.18 The personnel of Selected Prospective Collaborator must adhere to all the safety guidelines while handling machinery, components etc. All the safety gadgets procurement and issue shall be within the scope of work and responsibility of the Selected Prospective Collaborator.

6.19 Governing Laws & Jurisdiction: This Eol and related actions and process shall be governed by, and construed in accordance with the laws of Republic of India. This Eol shall be subject to exclusive jurisdiction of the Courts at Bengaluru.

6.20 The terms and conditions as stated in this Eol document are not exhaustive and BEML Limited reserves the right to add /delete or modify any term and condition in the **definitive agreement to be entered into with the short-listed** Prospective Collaborator(s).

6.21 Interested Prospective Collaborator may refer the official website of BEML Limited (www.bemlindia.in) for BEML Limited general procurement terms & conditions from BEML Limited purchase manual.



6.22 Evaluation & Selection:

- 6.22.1** Upon receipt of response(s) against this EoI, BEML Limited will review the responses, shortlist the Prospective Collaborator (s) and invite the shortlisted Prospective Collaborator (s) for a presentation.
- 6.22.2** BEML Limited intends to shortlist Prospective Collaborator (s), who shall collaborate with BEML Limited on a phase wise approach, with responsibility of supplying components and providing technology support to BEML Limited with minimum 30% local content & then increasing the local content gradually over a period of time for Design, Engineer, Manufacture, Assemble, Test, Supply, Field Install, Commission, Repair and Service.
- 6.22.3** Post selection, BEML Limited and the selected Prospective Collaborator shall execute a Non-Disclosure Agreement & also a definitive Agreement detailing the roles and responsibilities of Parties, time-lines, exclusivity, financials etc.

6.23 Rejection: A response /proposal to EoI is liable to be rejected for any of the following reasons:

- 6.23.1** EoI is not accompanied by required documentation and has failed to provide clarifications related thereto, when sought for by BEML Limited.
- 6.23.2** Misrepresentation, lack of proper documentation, fraud, coercion, undue influence, canvassing etc. by the Prospective Collaborator
- 6.23.3** Response/proposal to EoI is received after the closing time and date.
- 6.23.4** If any information, which otherwise would have reason for BEML Limited to reject or disqualify the Prospective Collaborator, came to the knowledge of BEML Limited after the Prospective Collaborator has been qualified, BEML Limited will have the right to reject such Prospective Collaborator at any time after such information becomes known to BEML Limited.

6.24 The Prospective Collaborator should not be restricted under **GFR Rule 144(xi) as may be amended from time to time.**

6.25 The Prospective Collaborator should agree to sign the “**Integrity Pact**” with BEML Limited committing that the persons / employees of the parties, shall not involve in any corrupt practices on any aspect of the EoI or Selection, or joint working / future contract in pursuance to the EoI *as per the provisions of the BEML Limited Purchase Manual*



SECTION – 7

7. PRESENTATIONS ON PROPOSED COLLABORATION / METHODOLOGY

The Prospective Collaborator shortlisted, based on the eligibility criteria claimed, may be invited either physically or through video conference to make a presentation at a date, time and location notified by BEML Limited. The purpose of the presentation would be to allow the Prospective Collaborator to present its collaboration /methodology, experience, capabilities, infrastructure, and other key points, if any.

SECTION – 8

8. SUBMISSION OF RESPONSE/PROPOSAL TO EoI

8.1 The response/proposal to EoI to be submitted online through email, mentioning EoI reference: CTPAM/EoI/ES/2025 in the Subject, to bemleoi@bemlltd.in, stating compliance to each point, along with the enclosures to be forwarded by interested reputed Prospective Collaborator.

8.2 Submission of Responses to this EoI shall have the following documents:

- a) Covering letter referring this EoI.
- b) Operational Requirement as per **Annexure-1**
- c) Eligibility Criteria format as per **Annexure-2**
- d) EoI response format as per **Appendix' A**
- e) Certificate as to Authorized Signatories as per **Appendix' B**
- f) Declaration by the Prospective Collaborator as per **Appendix' C**
- g) Declaration by the Prospective Collaborator as per **Appendix' D**

The declarations / additional documentary proof as may be required by BEML Limited shall be submitted by the Prospective Collaborator as and when called for to impress upon any averment or claim etc.



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		<i>Annexure-1</i>
SI. No.	Operational Requirement	Prospective Collaborator's Response**
	<i>** The Prospective Collaborator shall fill & submit their response with supporting documents / certificates / undertaking letters</i>	
1	Whether Prospective Collaborator is capable of designing, developing and supplying ARM/Intel/Freescale/other similar processor based embedded control system hardware boards for electronic controllers and Man Machine Interface (MMI) for defence and aerospace (ground-based and airborne applications) related projects. (essential)	
2	Whether Prospective Collaborator is capable of designing and developing algorithms as per functional requirements and develop software for embedded systems using low-level or high-level languages for implementation on embedded hardware. (essential)	
3	Whether Prospective Collaborator is capable of designing, developing and supplying Sighting & Targeting Systems consisting of sensing payloads such as Electro-Optical / Infrared (EO/IR) Gimballed Camera, Laser rangefinder, AI/Computer Vision Modules, etc. (desirable)	
4	Whether Prospective Collaborator is capable of designing, developing and supplying Communication Systems for long-range communication requirements (with LOS of 150 km and beyond). (essential)	
5	Whether Prospective Collaborator is capable of designing, developing and implementing GUI-based software used for communication and manual intervention. (essential)	
6	Whether the Prospective Collaborator is capable of designing and developing a Navigation System capable of high-precision navigation with GPS-denied capability. (essential)	
7	Whether the Prospective Collaborator is capable of designing, developing and supplying power electronic systems such as power distribution systems, auxiliary power units, etc. (desirable)	
8	Whether the Prospective Collaborator is capable of designing, developing and supplying other payload and warhead electronics consisting of fuzing and arming circuitry for safe deployment and control, detonation control systems for remote detonation and autonomous targeting. (essential)	



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		Annexure-1
SI. No.	Operational Requirement	Prospective Collaborator's Response**
9	<p>Whether the Prospective Collaborator is capable of developing electronic systems with real-time operating capability, by virtue of features such as: (essential)</p> <p>i. Deterministic real-time processing, which ensures accurate execution of critical tasks (e.g., missile alignment, firing sequence) within strict timing constraints.</p> <p>ii. Low latency communication, which enables seamless integration with sensors, command systems, and launch mechanisms.</p> <p>iii. High-speed data acquisition capable of getting data from sensors in real time and have it stored in a time-series database for Analytical workload and Predictive Maintenance.</p>	
10	<p>Whether the Prospective Collaborator is capable of developing modular software architecture which provides: (essential)</p> <p>i. Scalability</p> <p>ii. Quick upgrades or replacements of system components without significant downtime via plug-and-play design</p> <p>iii. Interoperability supporting multiple communication protocols (e.g., Ethernet, MIL-STD-1553, CAN Bus, RS232, RS485).</p>	
11	<p>Whether the Prospective Collaborator is capable of providing Cyber Security and Safety features such as: (essential)</p> <p>i. Protection against unauthorised access and tampering via Secure Boot and Encryption</p> <p>ii. Resilience to cyber threats through robust intrusion detection and recovery mechanisms.</p> <p>iii. Ensuring safe operation during system failures using fail-safe mechanisms like controlled shutdown or redundant backup controls among other security features.</p>	
12	<p>Whether the Prospective Collaborator will take responsibility of technical documentation for the developed electronic system/sub-systems as per the tender requirements (essential)</p>	



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		<i>Annexure-1</i>
SI. No.	Operational Requirement	Prospective Collaborator's Response**
	<i>** The Prospective Collaborator shall fill & submit their response with supporting documents / certificates / undertaking letters</i>	
13	<p>Whether the Prospective Collaborator is capable of developing electronic systems with Enhanced Maintenance and Diagnostics providing: (desirable)</p> <p>i. Proactive Health Monitoring for predicting and alerting potential system failures through real-time diagnostics.</p> <p>ii. Developed software tools for diagnostics and troubleshooting purpose.</p> <p>iii. Automated Updates enabling remote software upgrades and patch deployment.</p>	
14	<p>Whether the Prospective Collaborator is capable providing Advanced Artificial Intelligence features such as: (desirable)</p> <p>i. Predictive Maintenance using advanced algorithms to understand sensor data and correlate different sensors to predict chances of failure of devices.</p> <p>ii. Anomaly Detection to predict failures before they happen.</p> <p>iii. Dynamic Reconfiguration which adapts to changing environmental conditions (e.g., weather, electronic interference)</p>	
15	<p>Whether the Prospective Collaborator is capable of developing and providing Simulations and Training Support through an AI based Embedded Simulation Module allowing for operator training and scenario testing without live missile firing. The simulator learns user training patterns and rewards them with tougher challenges during training. (desirable)</p>	
16	<p>Whether the Prospective Collaborator is capable of Open Architecture Design which future-proofs the system by allowing integration of new technologies, such as enhanced AI algorithms, UI/UX designs. (essential)</p>	
17	<p>Whether the Prospective Collaborator is capable developing advanced Human-Machine Interface (HMI) which simplify operations with user-friendly dashboards and real-time data visualisation, and in training mode learns user behaviours based on login and provides visual hints to guide them. (essential)</p>	



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Annexure-1		
SI. No.	Operational Requirement	Prospective Collaborator's Response**
18	<p>** The Prospective Collaborator shall fill & submit their response with supporting documents / certificates / undertaking letters</p> <p>Whether the Prospective Collaborator is willing to comply with Industry Standards for aforementioned electronic systems, laid down by various governing agencies like CEMILAC, ADE, BIS, etc., such as: (essential)</p> <p>i. Mission-Critical Standards like MIL-STD-1553B, DO-178C, DO-254, MIL-STD-498, etc., which ensures adherence to standardized communication, software safety, flight-critical and other defence-specific protocols.</p> <p>ii. Environmental and EMI/EMC compliance with standards like MIL-STD-810G/H, MIL-STD-461G, JSS 55555, etc, to ensure electronic system's reliability in harsh operational conditions.</p> <p>iii. and any other certifications/standards required by the customer RFIs/RFPs/Tenders.</p>	
19	<p>Whether the Prospective Collaborator has experience required to prototype aforementioned electronic systems and whether it has relevant facilities or tie-up with relevant testing agency in this regard.</p>	
20	<p>Whether the Prospective Collaborator has experience in Testing and Quality Control of aforementioned electronic systems and whether it has relevant facilities or tie-up with relevant testing agency in this regard.</p>	
21	<p>Whether the Prospective Collaborator has relevant facilities or tie-up with relevant testing agency for Software Testing for aforementioned electronic systems and whether it has relevant facilities or tie-up with relevant testing agency in this regard.</p>	
22	<p>Whether the Prospective Collaborator is willing to maintain Consolidated Indigenous Content (IC) Certificate of Prime Vendor and applicable Tiers vendors as per the format enclosed in DAP 2020 and make it available on demand for verification by BEML Limited and/or the prospective customers.</p>	



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Annexure-2		
Sl. No.	Eligibility Criteria	Prospective Collaborator's Response**
	<i>** The Prospective Collaborator shall fill & submit their response with supporting documents / certificates / undertaking letters</i>	
1	The Prospective Collaborator must be registered in India as required by law with minimum ten (10) years of continuous operation up to the date of publication of this EoI.	<i>Submit company registration certificate</i>
2	The Prospective Collaborator should have manufacturing and/or operations with at least five (5) years of infrastructure set up in India.	<i>Submit list of machineries, manufacturing facilities, Testing facilities & their photos with specifications, brochures etc,</i>
3	The Prospective Collaborator should have demonstrable experience and proven solution of more than five (5) years in ARM / Freescale / Intel processor based embedded hardware boards along with various control and communication systems.	<i>Submit relevant supply order copy/acceptance letter from competent authority</i>
4	The Prospective Collaborator should have good understanding and credentials for building safety architectures as per EN standards for safety, reliability and maintainability. Should have executed at least two products for defence and aerospace (ground-based and airborne) applications.	<i>Submit relevant credential documents/certificates from the competent testing authorities</i>
5	The Prospective Collaborator should have executed at least two projects with embedded controllers which have been qualified as per MIL /JSS 55555 standards and have been working for last 5 years for defence and aerospace (ground-based and aerospace applications) related projects.	<i>Submit supporting documents / certificates / Undertaking letters</i>
6	The Prospective Collaborator should have supplied/executed defence and aerospace (ground-based and airborne applications) related projects with supply order from last 5 years. Along with the list of documentary proof consisting of Contract Order / Agreement, along with its satisfactory completion report or certification from reputed clients about the work executed should be submitted.	<i>Submit relevant supply order copy/acceptance letter from competent authority / certificates / Undertaking letters</i>



Eol for Design, Development, Manufacturing & Supply
of Electronic Systems for Defence and Aerospace Applications



Annexure-2		
Sl. No.	Eligibility Criteria	Prospective Collaborator's Response**
	<i>** The Prospective Collaborator shall fill & submit their response with supporting documents / certificates / undertaking letters</i>	
7	The response shall necessarily be accompanied with following details: i. Prospective Collaborator's profile with Management structure and Group information if any. ii. Product Profile iii. Product Technical details iv. Reference list of customers v. Annual Audited financial reports for last three (03) years. vi. Any other information which is relevant to business and requirement of BEML Limited and would make the Prospective Collaborator relevant for long term mutually beneficial relationship.	<i>Submit supporting documents / certificates / Undertaking letters</i>
8	Average annual revenue during the last 3 years up to year ending 31 st March of 2024, should be at least Rs.100.00 Crores.	<i>Submit supporting documents / certificates</i>
9	Proof of the Prospective Collaborator being a MSME (as applicable)	<i>Submit MSME certificate</i>
10	Prospective Collaborator should be a registered Entity in India with good reputation and not placed on the restricted list for arms import by Indian MoD. Dealers/ distributors/ agents/ representatives are not eligible to participate in this Eol. <i>As per Appendix-C & Appendix-D</i>	<i>Submit Appendix-C&D</i>
11	Lack of complete information or furnishing of false information related to the eligibility criteria and the / documents submitted will lead to disqualification of the Prospective Collaborator.	<i>Submit Undertaking letter</i>
12	The Prospective Collaborator shall accept that BEML Limited shall have the sole right to market the product in India for MoD/DRDO/CSIR/DPSU's /military/MHA. The export of the Products manufactured in furtherance to this Eol shall be on mutual consent of the Parties	<i>Submit Undertaking letter</i>



EoI for Design, Development, Manufacturing & Supply
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Annexure-2		
Sl. No.	Eligibility Criteria	Prospective Collaborator's Response**
	<i>** The Prospective Collaborator shall fill & submit their response with supporting documents / certificates / undertaking letters</i>	
13	The Prospective Collaborator shall agree that BEML Limited will be entitled to hold joint IP rights for all technologies developed for the project under definite agreement/s in furtherance to this EoI.	<i>Submit Undertaking letter</i>
14	Enclose EoI Response Format as per Appendix-A	<i>Submit Appendix-A</i>
15	Enclose Certificate as to Authorized signatories as per Appendix-B	<i>Submit Appendix-B</i>
16	Brief description on profile of the Prospective Collaborator covering the below aspects: <ol style="list-style-type: none">1. Prospective Collaborator's registration certificate2. Brief write-up on Prospective Collaborator's Products profile, core capability3. Auditor certified statements of Annual turnover of the Prospective Collaborator for the last 3 financial years.4. Board of directors/ Managing Body of the Prospective Collaborator.5. Head Quarters.6. Infrastructure Capabilities7. Quality Management, ISO certificates or equivalent8. Subsidiaries / JVs or related entities.9. Strategic alliance with other Entities (In India and abroad)10. Contact details of the Single Point of Contact.	<i>Submit supporting documents / certificates / undertaking letters for each aspect</i>



Appendix' A

{To be printed and submitted on Prospective Collaborator's official letterhead}

EoI RESPONSE FORMAT

To,
Corporate Purchase
BEML Limited
SR Nagar, Bangalore 560027
E-mail: bemleoi@bemltd.in

Dear Sir,

Ref: Expression of Interest to collaborate with BEML Limited for Design, Development, Manufacturing & Supply of Electronic Systems for Defence and Aerospace (Ground-based and Airborne) Applications.

Having examined the Expression of Interest (EoI) document dated _____, downloaded from the BEML Limited website, i.e., www.bemlindia.in, we, the authorised signatories of the Prospective Collaborator, intend to submit the response/proposal to the aforesaid EoI document.

We attach hereto the response/proposal to EoI as required as per the EoI document, which constitutes our response to EoI.

Primary and Secondary contacts for our company are:

	Primary Contact	Secondary Contact
Company Name:		
Name:		
Title:		
Address:		
Phone:		
Mobile:		
Fax:		
E-mail:		



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We confirm that the information contained in this response or any part thereof, including its exhibits, and other documents and instruments delivered or to be delivered to BEML Limited are true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead BEML Limited in its short-listing process nor suppressed any material facts.

We fully understand and agree that on verification, if any of the information provided herein is found to be false /misleading, our response / proposal is liable to be disqualified / rejected from the selection process or termination of the definitive agreement, if the Prospective Collaborator is selected, besides other action as may be required as per the BEML Limited Purchase Manual.

We agree to the unconditional acceptance of all the terms and conditions set out in the Eol document.

It is hereby confirmed that I / We are entitled and duly authorised to act on behalf of the Prospective Collaborator and empowered and authorised to sign this document as well as such other documents, which may be required in this connection.

Dated this

(Signature)

(In the capacity of)

(Name)

Duly authorized to sign the Eol Response for and on behalf of:

(Name and Address of the authorised representative/signatory with Seal / Stamp of the Prospective Collaborator)

Witness Signature:

Witness Name:

Witness Address:



Appendix' B

{To be printed and submitted on Prospective Collaborator's official letterhead}

CERTIFICATE AS TO AUTHORIZED SIGNATORIES

I,, the
(Company Secretary/Managing Partner/ CEO etc.,) of M/s
....., do hereby certify that
Mr..... who signed the response/proposal
to the above EoI for Design, Development, Manufacturing & Supply of Electronic Systems for
Defence and Aerospace Applications (Ground-based and Airborne) is authorized to do so
and bind the company by authority of its (board / governing body).

Signature with date of Authorized signatory

Name: _____

Designation: _____

Firm's Seal: _____



Appendix' C

{To be printed and submitted on Prospective Collaborator's official letterhead}

DECLARATION BY THE PROSPECTIVE COLLABORATOR

This is to certify that we M/s _____, (Name of the Prospective Collaborator) herein does not have any litigation, arbitration cases or any litigation against BEML Limited pending before any Court / Tribunal / Statutory Authority in connection with any contract / tender issued by BEML Limited.

Signature with date of Authorized signatory

Name: _____

Designation: _____

Firm's Seal: _____



Appendix' D

{To be printed and submitted on Prospective Collaborator's official letterhead}

**DECLARATION BY THE
PROSPECTIVE COLLABORATOR**

This is to certify that _____ (Name of the the Prospective Collaborator) has not been banned / black listed / debarred from Trade by BEML Limited or any Central / State Govt. Dept. / Autonomous Institution / PSUs in India as on the date of submission of the response to the EoI.

I / we hereby certify that all the information given above are true and correct.

Signature with date of Authorized signatory

Name: _____

Designation: _____

Firm's Seal: _____