

**BEML LIMITED,
BEML SOUDHA,
23/1, 4th Main
SAMPANGIRAMA NAGAR,
BENGALURU - 560027**

**Notice Inviting
Expression of Interest (Eol)
for Technology tie-up
For
Specialist Mobility Vehicle (SMV) for Indian Army**

Reference No: CTPAM/Eol/FPIIC/SMV/2025/305

Due closing date: 22.04.2025

Eol response mail ID: bemleoi@bemltd.in

**Contact for
Clarifications: Mr. Madhusudhan BH,
General Manager(O)-R&D
FPIIC, Bangalore Complex, BEML Ltd.,
Bangalore, Karnataka, INDIA
Email: madhusudhan.bh@bemltd.in
Mobile: +91-7406897591**

Issued by

BEML LIMITED

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

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SECTION-1

Disclaimer

The information contained in this Expression of Interest (Eol) document provided to the Prospective Collaborator(s), by or on behalf of M/s BEML Ltd., 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. 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 Ltd., its executives 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 where necessary obtain independent advice from appropriate sources.
2. BEML Ltd., its executives 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.
3. BEML Ltd., may, in its absolute discretion, but without being under any obligation to do so, modify, amend or supplement the information in this Eol document.
4. The issue of this Eol does not imply that BEML Ltd., is bound to select and shortlist any or all the Prospective Collaborator(s). Even after selection of suitable Prospective Collaborator, BEML Ltd., is not bound to proceed ahead with the Prospective Collaborator and in no case be responsible or liable for any commercial and consequential liabilities in any manner whatsoever.
5. The Prospective Collaborator(s) shall bear all costs associated with the preparation, technical discussion/presentation and submission of response against this Eol. BEML Ltd., shall in no case be responsible or liable for these costs regardless of the conduct or outcome of the Eol process.
6. Canvassing in any form by the Prospective Collaborator(s) or by any other agency on their behalf shall lead to disqualification of their Eol.

7. Notwithstanding anything contained in this Eol, BEML Ltd., reserves the right to accept or reject any application and to annul the Eol 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 Ltd., rejects or annuls all the applications, it may at its discretion, invite all eligible Prospective Collaborators to submit fresh applications.
8. BEML Ltd., reserves the right to disqualify any applicant during or after completion of Eol 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 Ltd.,
9. BEML Ltd., reserves the right to verify all statements, information and documents submitted by the applicant in response to the Eol. Any such verification or lack of such verification by BEML Ltd., shall not relieve the applicant of his obligations or liabilities hereunder nor will it affect any rights of BEML Ltd.,

SECTION-2

Schedule of Eol process & Contact details

A. Schedule of Eol process

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

SI. No.	Description	Date
01	Issue of Eol Document	21.03.2025
02	Last date of Submission of Eol response	22.04.2025

B. Contact Details related to Eol

Mr. Madhusudhan BH,
General Manager(O)-R&D
FPIIC, Bangalore Complex, BEML Ltd.,
Bengaluru, Karnataka, INDIA
Email: madhusudhan.bh@bemltd.in
Mobile: +91-7406897591

Note:

Submission of the Eol

The Eol shall be submitted **before 22.04.2025 through email only** mentioning Eol reference: CTPAM/Eol/FPIIC/SMV/2025/305 dtd 21.03.2025 in Subject to bemleoi@bemltd.in

Queries if any, may be forwarded to madhusudhan.bh@bemltd.in and bemleoi@bemltd.in

SECTION-3

ABOUT BEML LIMITED

- a. 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.
- b. 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.
- c. 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

More details about the entire range of BEML's products and operations can be viewed by visiting our web site www.bemlindia.in

SECTION-4

Details of Expression of Interest (Eol)

4.1 Introduction:

BEML invites Expression of Interest (Eol) from the Prospective Collaborator(s), who are willing to associate with BEML Ltd., through a License & Technology Collaboration Agreement (**TCA**) for joint development of Specialist Mobility Vehicle (SMV) for Indian Army to enable BEML Ltd., to Design, Engineer, Manufacture, Assemble, Test, Supply, Field Install, Commission, Repair, Service and Retrofit. Ministry of Defence, Govt of India intends to procure Specialist Mobility Vehicle (SMV) under Buy (Indian-IDDMM) Category of Chapter II of Defence Acquisition Procedure (DAP) 2020. Buy (Indian)-IDDMM Category refers to the acquisition of from an Indian vendor for the products that have been indigenously designed, developed and manufactured with a minimum of 50% Indigenous Content (IC) on cost basis of the base contract price i.e., total contract price less taxes and duties. The latest version of DAP 2020 can be accessed on GOI, MoD website: <https://mod.gov.in/dod/defence-procurement-proc--dap>.

4.2 Scope of Cooperation:

BEML Ltd., is seeking Expression of Interest(s) from Prospective Collaborator(s) through (TCA) for joint development of Specialist Mobility Vehicle (SMV) for Indian Army. The TCA shall enable BEML Ltd., to Design, Engineer, Manufacture, Assemble, Test, Supply, Field Install, Commission, Repair, Service and Retrofit Specialist Mobility Vehicle (SMV) for Indian Army. The Prospective Collaborator(s) meeting the Pre-qualification requirements (PQR) as specified in clause 4.3 below are invited to submit their response to this Eol, as per indicative scope of technology transfer given in **Annexure-1**. Upon receipt of response(s) against this Eol, BEML Ltd., will review the response(s) to ascertain suitability of the offer and shortlist Prospective Collaborator(s) for further discussions. Detailed discussions on commercial and other terms and conditions to finalize the TCA shall be held with shortlisted Prospective Collaborator(s). The detailed terms and conditions for said TCA shall be mutually agreed upon.

4.3 Pre-qualification requirements (PQR)

The Prospective Collaborator(s) shall meet following qualification requirements as on the date of submission of EoI (to be substantiated by a documentary evidence):

1. The Prospective Collaborator should have designed, engineered, manufactured, tested, supplied and commissioned similar vehicle (broad technical specifications at Annexure-3) and such equipment should have completed at least three (03) years of service as on date of closing of this EoI.

OR

2. The Prospective Collaborator should have designed similar vehicles (broad technical specifications at Annexure-3) and their designed equipment should have completed at least three (03) years of service as on date of closing of this EoI.

Note:

Prospective Collaborator (s) shall take the responsibility for transfer of know how in the area of Design, Engineer, Manufacture and testing of Specialist Mobility Vehicle (SMV) to BEML Ltd., within the specified timeframe.

4.4 Instructions:

4.4.1 The interested Prospective Collaborator(s) should submit their response(s) along with enclosed annexures on or before **22.04.2025**.

Annexure-1: Indicative Scope of Technology Transfer.

Annexure-2: Prospective Collaborator's Experience in the field of Specialist Mobility Vehicle (SMV) for Indian Army.

Annexure-3: General technical specifications of Specialist Mobility Vehicle (SMV) for Indian Army proposed for TCA.

Annexure-4: Reference List: The Prospective Collaborator's major supplies in last 15 years.

Annexure-5: EoI response format.

Annexure-6: Certificate as to Authorized Signatories.

Annexure-7: Declaration by the Prospective Collaborator regarding litigation.

Annexure-8: Declaration by the Prospective Collaborator regarding blacklisting.

4.4.2 The response shall necessarily be accompanied with following details:

1. Company background
2. Product Profile
3. Technical details
4. Reference list of customers
5. Annual Audited financial reports for last 3 (three) years.

4.4.3 Language: All correspondences and documents related to the Eol response shall be in English language, provided that any printed literature furnished by the Prospective Collaborator(s) 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.

4.4.4 The Prospective Collaborator(s) shall abide by the terms & conditions, as applicable, of the Eol.

4.4.5 All pages of the response against this Eol shall be duly signed by the authorised signatory. Over writing should be avoided. Copies of the credentials/ documents which are to be annexed must be self-attested and bear the signature and seal of the authorized signatory / authorised representative of the interested Entity/Firm/Company. The interested Entity/Firm/Company will be requested to produce the originals of all information / documents as and when so required by BEML.

4.4.6 Multiple proposals from the same Prospective Collaborator should not be submitted.

4.4.7 BEML Ltd., at its discretion shall inspect the Prospective Collaborator's works/office/reference site premises for the purpose of evaluation, as deemed necessary before selection of Collaborator. BEML Ltd., decision in this regard shall be final.

4.4.8 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 from participating in any of their project, as on date of submission of EoI, shall not be eligible to submit the EoI.

4.4.9 BEML Ltd., shall receive applications pursuant to this EoI in accordance with the terms set forth herein, as may be modified, altered, amended and clarified from time to time by BEML Ltd., and all applications shall be submitted in accordance with such terms on or before the date specified in this EoI for submission of applications.

In case any amendment/corrigendum to this EoI is issued, it shall be notified only at www.bemlindia.in, which shall form part of this EoI

4.4.10 Restrictions on Prospective Collaborator from a Country which shares a Land Border with India:

- a) Interested Prospective Collaborator from a country which shares a land border with India will be eligible to respond to this EoI only if interested Prospective Collaborator is registered with Competent Authority (Registration Committee constituted by the Department of Promotion of Internal Trade (DPIIT) of Govt. of India). Such registration should be at least valid for the entire period of EoI due date or any extension thereof.
- b) Interested Prospective Collaborator from a country which shares a land border with India means: a) An entity incorporated, established or registered in such country; or b) A subsidiary of an entity incorporated, established or registered in such country; or c) An entity substantially controlled through entities incorporated, established or registered in such country; or d) An entity whose beneficial owner is situated in such a country; or e) An Indian (or other) agent of such an entity; or f) A natural person who is a citizen of such a country; or g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

4.5 REJECTION: An Expression of Interest is liable to be rejected for any of the following conditions:

4.5.1 The Expression of Interest is not accompanied by required documentation and has failed to provide clarifications related thereto, when sought by BEML.

4.5.2 Misrepresentation, lack of proper documentation, fraud, coercion, undue influence, canvassing etc.

4.5.3 The Expression of Interest is received after the closing time and date. If any information which would have entitled BEML to reject or disqualify the applicant becomes known after the applicant has been qualified, it reserves the right to reject the applicant at that time or at any time after such information becomes known to BEML.

4.6. PROCESS TO BE CONFIDENTIAL:

Information relating to the examination, clarification, evaluation and comparison of Eol and recommendations shall not be disclosed to Prospective Collaborator(s). Any effort by Prospective Collaborator(s) to influence BEML Ltd., in processing of Eol or selection decisions may result in the rejection of the response against Eol.

4.7 GOVERNING LAWS & JURISDICTION:

The Eol process shall be governed by, and construed in accordance with the laws of India and the Courts at Bangalore (India) shall have exclusive jurisdiction over all disputes arising under, pursuant to and / or in connection with the Eol process. Foreign entity interested for collaboration with BEML for Specialist Mobility Vehicle (SMV) must have necessary clearance from their Govt. for Technology Sharing/ Transfer & Collaboration.

Annexure-1

Indicative Scope of Technology Transfer

Sl. No.	Description
(a)	Licensing and transfer of state-of-the-art technology relating to Design, Engineer, Manufacture, Assemble, Test, Supply, Field Install, Commission, Repair, Service and Retrofit Specialist Mobility Vehicle (SMV) for Indian Army.
(b)	Transfer of improvements / modifications / developments / upgradations to be carried out by the Prospective Collaborator(s) during the period of TCA for taking care of new market requirements and obsolescence. Subsequent updates required due to component obsolescence or updates implemented by Prospective Collaborator(s) due to safety consideration would also be provided.
(c)	Assistance in planning & establishing the new manufacturing, assembly and testing facilities & processes / suitable augmentation at BEML Ltd.'s existing facilities / processes by way of expert advice in terms of identifying, sizing & selection and preparation of specification of equipment / machinery required for manufacturing, their layout and foundation etc. Deputation of Collaborator's expert for commissioning of the manufacturing facilities, design of special tools and dies, jigs & fixtures etc.
(d)	Support through engineering services from Collaborator's design office / manufacturing facilities for licensed products.
(e)	Training of BEML Ltd., engineers to Design- know-how knowledge transfer, Engineer, Manufacture, Assemble, Test, Supply, Field Install, Commission, Repair, Service and Retrofit the Specialist Mobility Vehicle (SMV) for Indian Army.
(f)	Deputation of Collaborator's experts to assist BEML Ltd., in absorbing the technology for licensed products.
(g)	Transfer of applicable Proprietary software / computer programs including logics and source code, if any.
(h)	During the field trials and regular operation, if any modifications / updates are carried out to improve the performance / reliability of the system the same shall also be transferred to BEML Ltd., with complete know-how.
(i)	Technology being proposed should be the latest / state-of-the-art being marketed by the Prospective Collaborator.
(j)	Transfer of information to enable BEML Ltd., to source/procure those items, which Prospective Collaborator sources from other vendors (as these are not manufactured by the Prospective Collaborator) for use in Specialist Mobility Vehicle (SMV) for Indian Army.
(k)	Manufacturing 2D drawings of all the developed components are to be prepared. Installation or Mounting drawings of off-the-shelf or proprietary components drawing may be received from the respective suppliers. 2D layout drawings are

	to be prepared for all sub assembly of components including system wise. Casting and forging drawings are to be prepared only for critical components.
(l)	Deputation of BEML engineers to work with collaborator design team in order to absorb the technology/process being followed for licensed products.
(m)	Collaborator should enter in to a joint agreement on Intellectual Property Rights (IPR) with BEML Ltd.

Annexure-2

Prospective Collaborator's Experience in the field of Specialist Mobility Vehicle (SMV) for Indian Army

Sl. No	Requirement	Prospective Collaborator's response YES/NO and remarks, if any
(a)	Whether the Prospective Collaborator is an Original Equipment Manufacturer (OEM) of proposed Specialist Mobility Vehicle (SMV) for Indian Army or similar Vehicle.	
(b)	Whether documentary evidence to substantiate the below PQRs has been submitted by Prospective Collaborator.	
(c)	<p>The Prospective Collaborator should have designed, engineered, manufactured, tested, supplied and commissioned similar vehicle (broad technical specifications at Annexure-3) and such equipment should have completed at least three (03) years of service as on date of closing of this EoI.</p> <p style="text-align: center;">OR</p> <p>The Prospective Collaborator should have designed similar vehicles (broad technical specifications at Annexure-3) and their designed equipment should have completed at least three (03) years of service as on date of closing of this EoI.</p>	
(d)	Whether information on market share has been enclosed.	
(e)	Whether Prospective Collaborator's detailed reference list have been enclosed.	
(f)	Whether Prospective Collaborator's annual audited financial reports for last 3 years have been enclosed.	
(g)	Whether the Specialist Mobility Vehicle (SMV) for Indian Army or similar Mobility Vehicle offered for technology collaboration is the latest being marketed by the Prospective Collaborator.	
(h)	Whether customers (end users) letters / documentary evidence for satisfactory operation of model for Specialist Mobility Vehicle (SMV) for Indian Army which is being offered to BEML Ltd., under this EoI have been enclosed.	

(i)	Whether the Prospective Collaborator owns the IPRs for the technology being proposed for transfer under the Technology Collaboration Agreement (TCA) or have an unencumbered right from the owner of the IPRs to sub-license the technology, if applicable. If yes, whether list of such IPRs is enclosed.	
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Signature & Seal:

Authorised Signatory of the Prospective Collaborator

Annexure-3

**General technical specifications of Specialist Mobility Vehicle (SMV)
for Indian Army proposed for TCA**

Kerb Weight	Less than 2600 Kgs.
Crew	Minimum 09 personnel including driver.
Braking	Front and Rear Disc brake.
Operating Range	250-300 KM on full fuel.
Suspension	Independent Front and Rear suspension.
Maneuverability	<p>Maximum Speed Hard Soil Terrain: 40 km/h. Desert Terrain: 25-30 km/h. Marshy Terrain: 20 km/h. Snow Terrain (1ft snow): 15-20 km/h.</p> <p>Gradeability Hard Soil Terrain: 30° Dessert Terrain: 25° Snow Terrain: 20°</p> <p>Side Slope Maximum 20°</p>
Vertical Step	1 meter.
Trench	750 mm.
Turning Radius	On Spot Skid Turning.
Operating Altitude	Up to 14500 Ft with full payload.
Operating Temperature	<p>(a) Plain and Desert Terrain</p> <ul style="list-style-type: none"> • Minimum Operating Temperature: Between 0° to 05° C. • Maximum Operating Temperature: Between 40° to 45° C. <p>(b) High Altitude & Mountain Terrain</p> <ul style="list-style-type: none"> • Minimum Operating Temperature: Between (-)35° to (-)10° C. • Maximum Operating Temperature: up to 40° C.
Fording Capability	Minimum depth of water at which fording is possible for the vehicle is 2 Ft.
Miscellaneous	<p>To be Weapon Mounted. Specify the type of weapon that can be mounted (LMG / MMG).</p> <p>Ground Clearance: More than 550 mm.</p> <p>Towing Capacity: Up to 2000 kg.</p> <p>Winch Mechanism: 2000- 3000 kgs.</p> <p>Lighting: LED headlights.</p> <p>Tyres/ Wheels: Tubeless type with provision of CTIS and RFS system. Tyre Pressure Monitoring System is provided.</p>

	<p>Compliance certificate with respect to tyres and rim as per Indian regulation is provided.</p> <p>Cargo System: Yes, metal racks with quick rail system for loading of vehicle is provided.</p> <p>Camouflage: Yes.</p>
Transportability	The vehicle can be transported by Air, Rail and Road.
Safety Arrangement	<p>Vehicle: ROPS, fire extinguisher, and first aid kit.</p> <p>Passengers: Seat Harness for all occupants.</p>
Accessories	Yes, Will provide after specification finalization.
Engine Capacity	Power >190HP.
Drive Mode	4 X 4, Yes it can switch mode on fly.
Power to Weight Ratio	>20 HP/Ton.
Transmission	Automatic Transmission.
Side Slope	Not less than 17°.
Gradient	Not less than 30°.
Steering	Electro-Hydraulic power steering system.
Wheeled	Wheeled, Spare Tyre - One per vehicle.
Payload capacity	>1Ton.
Maximum Speed	>40 kmph on rd.
Operating in all-weather	Yes.
Emission Standards	BS IV or above.
Floatation	Should have floatation capability with speed not less than 05 kmph in water.
Cold Start System	To be provided with the integrated cold engine start system and HVAC.
Service Life	Minimum 10 years.
Roll Cage	Certified Roll Over Protected System in the SMV.
FOL and Batteries	Type and grade of FOL and Batteries should be easily available commercially in India.
Transmission	Capable of moving cross country and across water body.
Display	Digital Display available in the driver's console of SMV. The equipment is GNSS based Navigation system to include NAVSTAR, GLONASS and IRNSS.
Software	<p>The system should have indigenous software. Free software upgrades to be provided as and when available.</p> <p>Artificial Intelligence: Yes, AI based Drive Fatigue Monitoring System can be incorporated.</p>
Industry Standards	<p>It complies with the mentioned standards</p> <ul style="list-style-type: none"> (i) ISO 9001 2008/2015. (ii) ISO 2000 for service management. (iii) ISO 27000 for Information Security. (iv) AS:9100 certification which is the latest international

	<p>Quality Management System standard for the Aviation, space and Defence (AS&D) Industry, created by the IAG.</p>
<p>Engineering Support Package to be provided</p>	<p>(i) Providing 'Engineering Support Package' (ESP) for lifetime sustenance of equipment for various echelons of repairs to include the following:</p> <p>(aa) <u>Special Maintenance Tools/Special Test Equipment (SMTs/STEs)/Test Jigs/Inspection Gauges.</u></p> <p>(aaa) Special Maintenance Tools (SMTs) for maintenance and repair related tasks.</p> <p>(aab) Special Test Equipment (STEs) / Test Jigs for diagnostics to support maintenance and repair tasks.</p> <p>(aac) Inspection gauges to check serviceability standards/tolerances.</p> <p>(ab) Spares, to include subassemblies as well as spares for Component Level Repairs (CLR).</p> <p>(ac) Technical literature to include Illustrated Spare Part List (ISPL) and manuals covering all aspects related to operation, maintenance, diagnostics and repairs at various echelons.</p> <p>(ad) Training aggregates/aids for training of operator, quality assurance and maintenance personnel.</p> <p>(ae) Inspection standards to ascertain serviceability of equipment as well as its modules/comments.</p> <p>(af) A handheld device / laptop based on Board Diagnostic (OBD) scanner shall be provided to access the data log and reset option. For preventive maintenance, the inputs maybe collected from on board sensors and shall provide residual life and reliability status to operator.</p> <p>(ii) Classroom Trainer must be developed at the OEM for interactive Electronic Technical Manual which would be provided for technical literature.</p> <p>(iii) Periodic calibration of any Special Maintenance Tool/Special Test Equipment (SMTs/STEs) / Gauges to be provided as part of Engineering Support Package.</p>

Additional technical specifications of Specialist Mobility Vehicle (SMV)

Operating Temperature	Provide if the vehicle requires any special modification kit for operation at specific altitude and temperature.
Maneuverability	<ul style="list-style-type: none"> (i) Provide the maximum speed of the SMV while negotiating water bodies during fording. (ii) Provide the details of the capability for gradient manoeuvrability, if it would be affected by varied types of terrain conditions. (iii) Provide the details of the capability for side slope gradient manoeuvrability, if it would be affected by varied types of terrain conditions.
Fording Capability	Provide the maximum speed of water current at which fording can be carried out.
Floatation Capability	<ul style="list-style-type: none"> (i) Describe if the vehicle has floatation capability in canals, static water bodies and sea (near the shore). (ii) Provide the maximum bank angle which the vehicle can negotiate while entering and exiting the water body.
Tyres / Wheels	Specify the size of tyres and wheels (in mm) provided in the vehicle.
Engine Capacity	<ul style="list-style-type: none"> (i) Provide if there is any de-rating of the engine with increase in altitude. If yes, provide the maximum altitude beyond which the de-rating of the engine commences for SMV. Provide the percentage of de-rating of engine with corresponding increase in operating altitude per 1000ft. (ii) Provide the life of the engine in terms of both engine hours and kilometres. (iii) Provide the time required for the vehicle to commence operation after ignition.
Fuel, Oils and Lubricants (FOL)	<ul style="list-style-type: none"> (i) Provide the type and grade of FOL used for operating the SMV. (ii) Provide the fuel capacity (in litres) of the SMV.
Cold Start System	<ul style="list-style-type: none"> (i) Provide the temperature at which the Cold Start System is required to be activated to start the vehicle engine. (ii) Provide the time required for the Cold Start System to warm up the engine to function optimally in cold conditions.

	<p>(iii) Provide details of cabin temp maintained at ambient temperature as under:</p> <p>(aa) Minimum Temperature (-) 35° C (ab) Maximum Temperature 45° C.</p>
Software	<p>(i) Provide the software security measures and the debugging procedures.</p> <p>(ii) Provide the adequate security available in the software package which makes it not vulnerable to viruses and/or hacking.</p>
Artificial Intelligence	Provide any other artificial intelligence systems that can be incorporated.
Engineering Support Package (ESP).	<p>(i) Provide a brief on your MRO philosophy, aligned to following levels of repairs (Refer Appendix B of Schedule I to Chapter II of Defence Procurement Procedure (DAP 2020):</p> <p>(aa) Unit (Organizational 1 (01)) Level. Repairs carried out in the Unit holding the equipment, involving replacement of minor components/subassemblies, which do not require any Special Maintenance Tools (SMTs).</p> <p>(ab) Field (Organizational 2 (02)) Level. Repairs by a field workshop, involving replacement of components/major subassemblies, which may require Special maintenance Tools (SMTs) supported by diagnostics using Special Test Equipment (STEs)/Test Jigs/Built In Test Equipment (BITE) facility.</p> <p>(iii) Provide the period for which you commit the product support for sustenance of equipment in terms of supply of spares/AMC/calibration etc.</p> <p>(iv) Provide the details on how many sub vendors involved in manufacturing of product. Specify if the product support from all sub vendors also assured for the same period, as committed by you.</p> <p>(v) Provide the engineering support package being offered. Specify if the maintenance free battery be provided.</p> <p>(vi) Provide the details on the ESP which would be provided by the OEM itself or would it be outsourced from sub-vendors.</p>
Repair & Maintenance	<p>(i) Provide is the provision for repair and maintenance of SMV.</p>

	<ul style="list-style-type: none"> (ii) Provide the details if the system is required to be routed back to the vendor for repairs, and what would be the total down time for such systems (including transportation to earmarked collection points). (iii) Provide if the vendor has major repair and overhaul facility for major assemblies and component level repair. (iv) Provide the details of the kind of Component Level Repairs being offered by the vendor. (v) Specify the levels of repair i.e., Operator Level, Field Level and Base Level Repairs. Also, specify the scope of repairs at each level. (vi) Specify and provide the details if there is any major infrastructure facility required at Field level to repair/replace the components. (vii) Give inputs on aspect related to such as time between overhauls / repairs, life time maintenance & spares support, Obsolescence Management support etc. (viii) Provide the repair & maintenance philosophy of the OEM to include periodicity of midlife interventions, intent towards establishment of maintenance hubs etc.
<p>Equipment Specific Inputs</p>	<ul style="list-style-type: none"> (i) Provide the details if the equipment is modular in construction to facilitate repairs in field by replacing defective module. Specify the Mean Time to Repair (MTTR) for repairs through replacement. (ii) Specify the Mean Time Between Failure (MTBF) for equipment and its main assemblies. (iii) Specify the expected life of your equipment and main assemblies like engine, txn, gear box, axles & rotables like alternator, compressor, self-starter etc. (as applicable) in terms of usage. (iv) Provide the details if your equipment has Built In Test Equipment (BITE) to support diagnostics and repair through modular replacement. If yes, specify the types of BITE facilities and up to what levels are these facilities being provided with the system (module/sub-assembly). (v) Provide the details if there is there any software applicable to your equipment. If yes, specify if it can be restored in field in case of any fault. In addition to this, specify if it is upgradable and whether open paper

	<p>license is available.</p> <p>(vi) List out the equipment or any of its sub system that have counter to display cumulative usage to facilitate usage-based preventive/periodic maintenance.</p> <p>(vii) Provide Indian origin generators and batteries with equipment where applicable.</p> <p>(viii) Prescribe the details of Indian equivalents of oils & lubricants used with equipment.</p> <p>(ix) Vehicle should preferably be right hand drive. Specify if it is adjustable driver/co-driver seat provided.</p> <p>(x) List all the items to be provided in instrument cluster. Specify if the instrument cluster is water proof.</p> <p>(xi) Provide the quantity of numbers of windshield, wiper, type of head light, tail light & fog lamps provided. Specify if there are rear view mirrors, side indicators, reverse light/alarms/battery charging indicator, inspection lamp connector, altimeter and horn provided in the vehicle.</p> <p>(xii) Prescribe the type of arrangement for glove box provided.</p>
Product Support	<p>(i) Specify the kind of 'Product Support' ensured for SMV. Provide the 'Time Period'.</p> <p>(ii) Specify if life time product support can be provided with SMV.</p>
Spares	<p>(i) Give details of vendors, sub vendors especially those with establishments in India as also readiness/Lead time towards spares provisioning.</p> <p>(ii) Specify the philosophy for management of repairs and spares post contract.</p> <p>(iii) Specify if the OEM / vendor has base overhaul facilities and availability of Infrastructure for the same in India.</p>
Product Support for Codification	<p>Provide acceptance to either provide existing NATO Stock Number (NSNs) of the OEM or codify the items supplied under the contract as per part list (including MRLS) in consultation with the MoD/Directorate of Standardisation in a time bound manner.</p>
Training Aspects of	<p>(i) List the training facilities available at the OEM/Vendor premises to conduct training of the Crew, Maintenance</p>

<p>Specialist Mobility Vehicle (SMVs)</p>	<p>and DGQA personnel.</p> <p>(ii) Describe how the vendor will assist/facilitate conduct of training for User, DGQA and Maintenance personnel in India and for what duration.</p> <p>(iii) Specify if there is any skill set desired for the trainee.</p> <p>(iv) Specify if there is any need for a special infrastructure required for the training. Confirm whether Simulators/Training Aids for the equipment are available and can be provided by the vendor.</p> <p>(v) Provide the details if the vendor will be able to provide Computer Based Training packages, soft copies of User Handbook and Training Manuals and IETMs for the training and specify the likely costs of each.</p> <p>(vi) Describe what type of user and technical description manuals likely need to be provided by the vendor and what are the likely costs of each.</p>
<p>Miscellaneous</p>	<p>(i) Provide the details if the OEM/Vendor operated the SMV to verify its performance at different altitudes and temperatures. Specify the temperatures and altitudes of the locations where the vehicle has been operated and indicate the range and endurance achieved.</p> <p>(ii) Provide the details if the vehicle been operated in high altitude areas/desert/terrains. Specify if there are any special maintenance schedules required for operation in such areas.</p>
<p>Monitoring cum Diagnostic Equipment</p>	<p>Specify if there is a handheld device/ laptop based On Board Diagnostic (OBD) scanner that shall be provided to access the data log and reset option. For preventive maintenance, the inputs maybe collected from on board sensors and shall provide residual life and reliability status to operator.</p>

Signature & Seal:

Authorised Signatory of the Prospective Collaborator

Annexure-4

Reference List: The Prospective Collaborator shall furnish a summary of their product reference as detailed below for major supplies in last 15 years

SL No	Name of Country where Specialist Mobility Vehicle (SMV) for Indian Army or similar Vehicle was supplied	No. of unit supplied	Year of Supply

Annexure-5

{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 Notice Inviting Expression of Interest (Eoi) for technology tie up for Specialist Mobility Vehicle (SMV) for Indian Army**

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:		

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:

Annexure-6

{To be submitted in the letter head of the Prospective Collaborator}

CERTIFICATE AS TO AUTHORIZED SIGNATORIES

I,, the Company Secretary
of, the
Prospective Collaborator herein do hereby certify that Mr./Ms
..... Who signed the EoI floated by
BEML for technology tie up Specialist Mobility Vehicle (SMV) for Indian Army is
authorized to do so and bind the company by authority of its board / governing body.

Date:

Signature:

(Company Seal)

Annexure-7

{To be submitted in the letter head of the Prospective Collaborator}

DECLARATION BY THE PROSPECTIVE COLLABORATOR

This is to certify that we, _____, the Prospective Collaborator herein do not have any litigation, arbitration cases or any litigation against BEML Ltd pending before any Court / Arbitrator in connection with any contract / tender issued by BEML Ltd.

Signature of Prospective Collaborator
(with Seal /Company Seal)

Annexure-8

{To be submitted in the letter head of the Prospective Collaborator}

DECLARATION BY THE PROSPECTIVE COLLABORATOR

This is to certify we _____ have not been banned /
black listed / debarred by BEML / Central / State Govt. Dept. / Autonomous
Institution / PSUs in India at the time of bid submission.

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: _____