

INTEGRATED HEADQUARTERS OF MINISTRY OF DEFENCE(NAVY)
DIRECTORATE OF ARMAMENT PRODUCTION AND INDIGENISATION (DAPI)

INVITATION FOR EXPRESSION OF INTEREST(EoI)

INDIGENOUS DEVELOPMENT OF EFFECTORS FOR ANTI TORPEDO
COUNTERMEASURE SYSTEM (5” MOBILE TARGET EMULATOR)

Reference : Defence Procurement Procedure 2016(DPP 16)

Appendices:

- Appendix ‘A’** : Indigenous Content aspect.
- Appendix ‘B’** : IPR of Government.
- Appendix ‘C’** : Association of Persons Agreement.
- Appendix ‘D’** : Technical Capability Assessment Criteria.
- Appendix ‘E’** : Information Performa
- Appendix ‘F’** : Certificate
- Appendix ‘G’** : Undertaking to comply with Indigenous Design

Introduction

1. Indian Navy has been focusing on developing indigenous platforms, equipment and systems/sub-systems/components towards achieving enhanced self-reliance. This **Expression of Interest (EoI) invites responses from eligible Indian Companies for indigenous development of Effectors for Anti Torpedo Countermeasure System (5” Mobile Target Emulator) here and after referred as MTE for Indian Navy.** The present proposal for development under ‘**Make-II**’ category is termed as ‘Project MTE’. **Project MTE is designed to provide certain operational capabilities to the Navy.** The Ministry of Defence (MoD), Govt of India, shall own Project MTE. The information regarding the project will be shared strictly on ‘Need to Know’ basis. The prototype development (Qty 02) of MTE has been approved as ‘Make-II’ category project. Subsequent procurement of 174 MTEs (@35 MTEs/ year for 4 years and 34 MTEs in 5th year) will be under the ‘**Buy (Indian-IDDM)**’ category. The project is reserved for MSMEs as stipulated in Para 7 of Chapter III-A of DPP 2016.

2. **Objective.** The objective of this EoI is to seek responses from eligible Indian industries and to shortlist potential companies. Responses to EoI should be evaluated as per the assessment criteria given in the EoI. Project shall be

progressed ahead even if only one Eol respondent is found meeting eligibility criteria. The responses submitted by the vendors would be quantified and assessed objectively.

Layout

3. The Eol has been covered under the following parts:-

- (a) Part I : General Information
- (b) Part II : Technical Requirements
- (c) Part III : Critical Technology Areas
- (d) Part IV : Guidelines for formation of Association of Persons (AoP) i.e. consortium
- (e) Part V : Eligibility Criteria
- (f) Part VI : Assessment Parameters
- (g) Part VII : Evaluation Criteria of Assessment Parameters
- (h) Part VIII : Documents to be submitted by Eol Respondents
- (j) Part IX : Queries and Clarifications
- (k) Part X : Miscellaneous

PART I: GENERAL INFORMATION

4. The project, i.e. **indigenous development of '5" Mobile Target Emulator (MTE)** has been approved under the 'Make-II' category for the prototype development of 02 numbers, for the purpose of Qualification Tests and Acceptance Tests, and for subsequent procurement of 174 numbers under the 'Buy(Indian-IDDM)' category as per DPP 2016. Details of the stages involved in the development process are enumerated in Chapter III-A of DPP 2016. The progress of the project will be monitored by the Project Facilitation Team(PFT) of Indian Navy/MoD constituted for this purpose. PFT will act as interface between India Navy and Industry during the design and development stage of the project. **No reimbursement of development cost is permissible under Make-II scheme.**

5. **Eligibility to Respond to an Eol as Individual Entity or as Consortium.**
The Eol can be responded to, at the option of an Eol recipient, by any of the following entities:-

- (a) Individual Eol Recipient; or

(b) **Association of Persons(AoP)** i.e., Consortium of Indian Companies consisting of two or more than two EoI recipients undertaking joint and several liability and an EoI recipient designated as the lead member through a '***Association of Persons(AoP)Agreement***'. All EoI recipients as the members of the AoP will sign the contract with MoD. This Agreement will be applicable for the entire project including but not limited to Production Phase and Lifecycle/Technology Refresh Contract placed by MoD, if any.

6. **Indigenous Content.** The products indigenously designed, developed and manufactured should have minimum of 40% Indigenous Content(IC) on cost basis of the total contract value; Or products having 60% IC on cost basis of the total contract value, which may not have been designed and developed indigenously. Apart from overall IC as detailed above, the same percentage of IC will also be required in (a) Basic Cost of Equipment; (b) Cost of Manufacturers' Recommended List of Spares(MRLS); and (c) Cost of Special Maintenance Tools(SMT) and Special Test Equipment(STE), taken together at all stages, including FET stage. For IC on cost basis, vendor should ensure compliance as detailed in **Appendix 'A'**.

7. **Intellectual Property Rights(IPRs).** Intellectual Property Rights of Government in "Make" projects are placed at **Appendix 'B'**. Development Agency/ Agencies(DA/DAs) shall retain title or ownership and all other rights in intellectual property generated during the development of project. However, the Government shall have March-in rights under which the Government can require the contractor to grant, or may itself grant license for, inter alia, the following reasons:-

- (a) Where health and safety requirements so require the Government to act in public interest;
- (b) For National Security Reasons;
- (c) To meet requirements for public use not reasonably satisfied by the contractor;
- (d) For failure of the contractor to substantially manufacture the products embodying the subject invention in India; or
- (e) For failure of the contractor to comply with any of the requirements laid down under these guidelines.

8. **Foreign Collaboration.** If the DA(s) collaborate(s) with a foreign firm as a technology provider in a certain technology area for the project, the nature of such collaboration and the technology areas being transferred must be clearly stated in the response. The contribution of the Indian industry in acquiring, developing and indigenising critical technologies shall be one of the key criteria in assessment of various proposals.

9. No component or any sub system of MTE shall be subjected to any type of inspection or audit by any Foreign Govt or Agency without prior approval of MoD, Govt of India.

10. A trusted supply chain that will include the engineering support requirements would be established for all components of MTE. All documents related to the MTE project are liable to be audited by Indian Govt or its nominated agency.

11. Detailed information about blacklisting of the company/consortium partners and foreign technology partner by any Govt Agency in India/ any other country would be provided as part of the response. Companies currently blacklisted by any Indian Govt Agency are ineligible for participation. Any such information not disclosed but revealed at a later stage would render the Company/Consortium ineligible for further participation.

12. **Time frames and critical activities.** The important time frames and critical activities for the project MTE are as follows:-

<u>Sr. No</u>	<u>Activity</u>	<u>Time in weeks from submission of Eol (T₀) in weeks</u>
(a)	Eol Response Submission	T ₀
(b)	Eol Response Evaluation	T ₀ + 5 (T ₁)
(c)	Issue of Project Sanction Order	T ₁ + 2 (T ₂)
(d)	Design & Development of prototype	T ₂ + 52 (T ₃)
(e)	Conversion of Preliminary Specifications to Specifications/ Solicitation of Commercial offer	T ₃ + 4 (T ₄)
(f)	User Trials & Staff Evaluation	T ₄ + 8-26

13. **Milestones of the Project.**

(a) **Evaluation of Eol Responses.** Eol responses will be evaluated in accordance with assessment parameters and evaluation criteria given in Part VI & VII of the Eol. All the shortlisted companies will be called Development Agencies(DAs). Project shall be progressed ahead even if only one Eol respondent is found meeting the eligibility criteria.

(b) **Project Sanction Order.** PFT will issue Project Sanction Order for the development of prototype with **Nil** financial implication for Indian Navy/MoD. In case of only single vendor having offered the prototype within timelines stipulated in the Project Sanction Order, not more than two time extensions will be accorded and thereafter the case is to be progressed as resultant Single Vendor Case(SVC).

(c) **Design and Development of Prototype.** PFT will act as the primary interface between the Indian Navy and the industry during the design and development stage under Make-II subcategory projects and facilitate the following:-

(i) Finalisation of trial methodology.

(ii) Provision of requisite professional inputs/documentation (if feasible/available with IN) to industry.

(iii) Providing clarifications related to functional or operational aspects of the store under development, as may be sought by the DAs from time to time, during the design and development of prototype.

(d) **Finalisation of Specification.** PFT will facilitate the finalisation of preliminary specification to final specification prior to commencement of user trials. The specification of the store would therefore be a part of the trial directives, and only the essential parameters as detailed in the specification will be tested.

(e) **Solicitation of Commercial offers.** A commercial Request for Proposal(RFP) for 'Buy(Indian-IDDM)' phase will be issued to all DAs for submission of their commercial offer prior to commencement of user trials. A User Trial Readiness Review (UTRR) will be conducted at all the firms' premises which are ready with the prototype, by the Project Facilitation Team in order to establish completion of development of prototypes along with test certificates in line with mandated specifications. This would include all destructive/ non destructive checks by the NABL/QA agencies on the prototype.

(f) **User Trials.** User trials would be carried out by Indian Navy/PFT to validate the performance of the store against the parameters/specifications approved after the development of prototype. Indian Navy will formulate the trial directives and constitute the Trial Team. The trial directive will specify the fundamental points that need to be addressed for validating the 'essential' parameters. The validation of the support system and maintainability trials, integral to and complementing the trial programme of the defence equipment/upgrades/product/system should be held simultaneously, wherever feasible. The user can recommend modification to the system for ease of handling and its maintainability. A total number of 2 prototypes are envisaged for prototype development including user trials. Documents regarding number of prototypes used for certain development may be produced to the UTRR team. The user trials is envisaged to be undertaken on a suitable platform where the efficacy of the MTE would be evaluated and will be informed prior trials. Safe to use certificate should be forwarded by the development agencies. The qualification and acceptance tests are to be completed in association with inspection agency prior conduct of user trials. No cost would be borne by the GoI during these tests.

(g) **Staff Evaluation.** Based on the User trials, the Indian Navy would carry out a Staff Evaluation, which gives the compliance of the demonstrated performance of the store vis-à-vis the specification. On the acceptance of Staff Evaluation report, the specification shall form the basis for the 'Buy(Indian-IDDM)' category of acquisition. If the prototypes of only a single firm/individual clears the trials, the project will be progressed as resultant single vendor.

(h) **Award of Contract.** Commercial offers of only those DAs/vendors will be opened whose store has been short-listed consequent to Staff Evaluation and the L1 bidder would be determined based on the provisions of the Commercial RFP and awarded the contract for manufacture.

14. Once the prototype is successfully validated, One Hundred and Seventy Four (174) such MTEs shall be procured by MoD, Govt of India under Buy(Indian-IDDM) category. Delivery of the MTE shall be in a phased manner.

15. Other successful DAs that have developed the prototype successfully but have not qualified as L1, would be issued a certificate by DDP indicating that product/system has been successfully trial evaluated.

16. **Multiple Technological Solutions.** Not Applicable.

PART II: TECHNICAL REQUIREMENTS

17. **Scope of the Project.** The scope of Project MTE includes:-

(a) Indigenous development of an effective and reliable MTE compatible with the overall operational characteristics of the Submarine Decoy System C303/S. The 5" Mobile Target Emulator is an underwater self-propelled decoy that simulates a target through the generation of echoes based on the acoustic emission of the attacking torpedo. It performs its deceiving actions by simulating a target when the attacking torpedo is operating in active mode and by simulating target radiated noise if the torpedo is operating in passive mode.

(b) **Functionality.** The MTE is programmable, prior to commencement of launch, as per countermeasure to deceive an attacking torpedo with an acoustic head operating in active or passive mode. For an attacking torpedo operating in active mode, it performs its deceiving actions by simulating a target and when the attacking torpedo is operating in passive mode, it simulates target radiated noise. The MTE should be designed to interface mechanically with the launching tube and electrically with the on-board system. The MTE should comprise of the following main assemblies:-

- (i) Acoustic Section.
- (ii) Battery(Thermal) Section.
- (iii) Electronic Section.
- (iv) Aft body Section(including Towed Hydrophone Assembly).
- (v) Dispenser Assembly.

(c) **System Specifications.** The system specifications are appended below:-

- (i) Vehicle Length (nose/ propeller) : 1100mm \pm 2mm
- (ii) Total Length with deployable receiver : 1203 \pm 2mm
- (iii) Total Length with deployed receiver : 11.2m (approx.)
- (iv) Maximum Diameter : 123 \pm 0.1mm
- (v) Weight (in air) : \leq 23Kg

(d) The 5" Mobile Target Emulator shall be designed to satisfactorily decoy an attacking torpedo with an acoustic head operating in active or passive mode. Upon launch 5" Mobile Target Emulator will:-

- (i) Simulate a target if the attacking torpedo is operating in active mode.
- (ii) Simulate target noise if the attacking torpedo is operating in passive mode.

(e) The indigenous 5" Mobile Target Emulator is to conform to the following characteristics:-

- (i) Storage Temperature : - 10° to + 65°C, at RH < 95%
- Operating Temperature : 0° to + 50°C
- (ii) Relative Humidity : \geq 95%
- (iii) Launch Conditions : PD(10 m) to at least 400 m
at platform speed 0 - 20 knots
- (iv) Sea State : up to 6
- (v) Salinity : > 35000 ppm
- (vi) Seawater Density : 1.012 - 1.034 gm/cc
- (vii) Activation Delay : \leq 2.5 sec
- (viii) Operating Conditions : Role & Pitch up to \pm 45°/ 8 - 10 sec,
List/Trim up to + 45°/ 15 minutes
- (ix) Operating Time : } Details will be shared during
- (x) Acoustic Features : } Project Sanction Order stage

- (f) **Design.** The design criteria is as follows:
- (i) The MTE should be designed to maintain watertight integrity in launcher and during operation.
 - (ii) The MTE should be so designed as to enable pre-setting of the initial turn angle via electromagnetic link prior launching in order to maximise the probability of deception on the incoming threat.
 - (iii) The MTE should be designed to produce, real time echoes with the same characteristics of a real target(cavitation noise of propeller, thickness and shape), and coherent with the torpedo acoustic head transmission time/frequency.
 - (iv) The MTE should be designed to interface mechanically with the launching tube and electrically with the onboard system through pre-setting box fitted on the launching tube.
 - (v) The mobility of MTE must include the capability to change depth and course(using rudder, tail planes, servo motors and navigational sensors) guided by electronic section.
 - (vi) The MTE should be capable to receive torpedo active transmission via towed hydrophone and modify transmission characteristics of acoustic section.
 - (vii) The capability of acoustic section to transmit echo and noise simultaneously to deceive active/passive/mixed mode torpedo.
 - (viii) The MTE should be designed in a way so that monitoring of health of MTE by user in idle state without powering-on the battery of MTE(e.g. Hydro Channel) can be done.
- (g) **Battery Section.** The thermal battery supplies the electronics, the acoustic parts and the propulsion motor. The battery is a thermal cell with high energy density consisting of a cylindrical body in stainless steel with 4 terminals and a percussion cap holder for the battery activation. It should be designed to mechanically activate on launch. The details of the thermal battery would be shared during Project Sanction Order stage.
- (h) **Modes of Operation.** The MTE should operate in the following functional modes:-
- (i) **Initialisation Phase.** This phase would begin after the MTE is made operative and would terminate with the switching on of the acoustic section.
 - (ii) **Activation Phase.** In this phase, motor is activated and the profile mission, pre-set & Offset data is loaded (in RAM).

(iii) **Stabilisation phase.** After 1.5 sec from the end of “Initialisation”, the MTE should switch into this phase, wherein, it carries out the necessary manoeuvres to stabilise itself on the horizontal plane.

(iv) **Clearing Phase.** After the MTE verifies that it is stable on the horizontal plane, it should switch to this phase to reach the foreseen condition of trim to reach distance from the submarine and towards the end, reach the foreseen height and selected course in the pre-set data.

(v) **Cruise Phase.** The MTE should execute the foreseen manoeuvres (e.g. Snake, Turns, Circular runs) of the mission, according to the selected profile in the preset data.

(vi) **Circular Phase.** This phase should foresee a fixed circular manoeuvre up to the end of time event or the mission and shall check that the actual time of mission is equal to one of the defined events for the mission profile.

(vii) **End Mission Phase.** The MTE should end the run in this phase. The MTE should be designed in way that it can erase and destroy the programs during end of run sequence of MTE in this mode.

(viii) **Maintenance Mode.** In this mode, the MTE with the electronic section would be connected to a supporting Test Equipment for testing in the laboratory to assess the functioning.

(j) **Environmental Tests.** The MTE and all components should comply with Environmental Tests iaw JSS 55555: 2012 (environmental test method for electronic and electrical equipment) and MIL STD 810G (environmental engineering consideration and laboratory tests). The temperature and mechanical specification of the components are to be chosen in such a manner that the overall ET specifications are not degraded. No waiver for the ET specifications shall be accorded post placement of order. Function tests on test equipment and internal leak check at 0.2 bar for 30 minutes are to be carried out for the MTEs before and after each ET.

(k) **EMI/EMC & ESS Specification.** The design/development agency shall be required to formulate an EMI/EMC acceptance plan (EMI-AP) post placement of order for approval of IHQ MoD(N)/NEC (Mumbai). The emission levels, both conducted and radiated, of the MTE should be within limits indicated in the EMI-AP. The EMI/EMC testing shall be done on one prototype, as part of QTs, as per test plan vetted and stamped by NEC (Mumbai). ESS for the electronic components of the MTE is required to be carried out for 100% components, manufactured indigenously. The following ESS are to be carried out on the PCBs used in the MTE:-

<u>Ser</u>	<u>Description of Test</u>	<u>Levels and Duration</u>	<u>Remarks</u>
(i)	Random Vibration	Frequency 20 to 2000 Hz. Power Spectral density of 0.02g square/Hz, 10 min each in all axes.	For all PCBs
(ii)	Thermal Shock	-40° C for 60 min, +70° C for 60 min Change over to take place within 05 min. Number of cycles 06.	For all PCBs including mother boards.
(iii)	Endurance Test (burn in)	8 Hours endurance test. System will not be in normal packed condition for this test. Card cages will be separated and subjected to this test with all PCBs and mother boards mounted. External cooling with blowers or AC to be provided for the card cages during this test.	For all PCBs

(l) **Maintainability**. The following should be catered for the indigenous MTE:-

(i) Electronic components should facilitate replacement with new versions without modifications to other electronic components.

(ii) Maintenance routine/ replacement of components to the MTEs should not reduce the life of MTEs.

(iii) MTEs should be free of Trojans, worms, viruses and incorporate high level of resistance should the on board countermeasure system get affected.

(m) **Test Equipment**. The MTE must be accompanied with Test Equipment, with supporting documents, for testing of MTE in laboratory. Further, requirement of calibration of test equipment along with calibration equipment, periodicity and procedure to be provided.

(n) **Standards and Specification**. The specifications for design and development, operation and maintenance of the system should confirm to the latest MIL STD/IEEE or its equivalent. The following documents or their equivalent, but not restricted to, are to be referred for characteristics, design, manufacture and testing performance of the system:-

<u>Ser</u>	<u>Standard/Specification</u>	<u>Description</u>
(i)	NESS II/Shock Grade 'A'	Shock Standards
(ii)	MIL-Q-9858A	QA Program Requirements.
(iii)	MIL-STD-202	Test Methods for electronics and electrical component parts.

<u>Ser</u>	<u>Standard/Specification</u>	<u>Description</u>
(iv)	MIL-STD-242	Electronic Equipment Parts.
(v)	MIL-STD-454C (Ch2)	Standard General Requirements for Electronic Equipment.
(vi)	MIL-STD-461G	Electromagnetic Interference Characteristics requirements for Equipment.
(vii)	MIL-STD-470	Maintainability Program Requirements (for systems and equipment).
(viii)	MIL-STD-756A	Reliability Prediction.
(ix)	IEEE 12207	Software Standard, Configuration Management.
(x)	MIL STD 810 H	Environmental Tests for High Temperature, Low Temperature, Humidity, Salt, Mould Growth, Shock Standards, Vibration, Immersion and Sealing.
(xi)	MIL STD 2164	Environmental Stress Screening
(xii)	MIL STD 1686C	Electrostatic Discharge Control Program.
(xiii)	MIL STD 1377	Measurement of Effectiveness of Cable Connector, Weapon enclosure shielding and filters in precluding Hazards of EM radiation to ordnance.
(xiv)	MIL STD 882C Para 4	Standard Practice for System Safety.
(xv)	JSS 55555	Environmental Condition
(xvi)	MIL STD 464C	Electromagnetic Environmental Effects, requirements for systems.
(xvii)	JSG 0270	EMI/EMC Specification
(xviii)	MIL HDBK 344A	Environmental Stress Screening of electronic equipment.

(p) **MIL Grade Components.** Normally MIL grade components are to be used. However, industrial and commercial grade components could also be used. Whilst using industrial and commercial grade components, the various test standards and results being used in the manufacturing process are to be obtained from respective manufactures. These shall be scrutinised by inspection agency as part of inward raw material inspection. Component screening using ESS and electrical testing to identify marginal and defective components shall be carried out. The screening tests and the applicable test conditions shall be worked out depending upon the type, source and application of the components.

(q) **Qualification Test.** MTE and associated components should be capable of withstanding vibration, shock and corrosion as required for marine equipment. The proposed QT schedule is to be prepared by the manufacturer in consultation with inspection agency.

(r) **Acceptance Tests.** Additionally, the following tests would be undertaken as part of acceptance:-

(i) **Acoustic Test.** The setup for demonstration of Acoustic Test would comprise of test tank with reference hydrophone (simulating receiver head of torpedo) and MTE acoustic head. In addition, a test transducer (simulating the torpedo transmitter) with pre-amplifier would be connected. The acoustic parameters of the MTE would be monitored by instruments consisted of signal generator, oscilloscope and spectrum analyser. Further details would be shared during PSO stage.

(ii) **Battery Endurance Test.** The propulsion load and acoustic head would be connected to the battery terminals via the monitoring instruments. A suitable signal to simulate the depth is to be provided. The battery discharge endurance should meet the minimum operating time criteria.

(s) **Testing.** All the above, lab testing by the DA is to be undertaken by a NABL accredited lab/ Govt lab. DA is to forward draft test protocols of all tests for approval to ensure validation of essential parameters of specification. The DA would be required to provide Quality Assurance Plan(QAP), if necessary. DGNAI or his designated QA agency reserves the right to modify the QAP, if necessary. The MTE supplied by vendor would be accepted subject to inspection clearance by DGNAI or his representative. The DA would be required to provide all test facilities at his premises or premises of sub-vendor for acceptance inspection by DGNAI and also train their team.

(t) **Handling and Transportation.** General safety instructions would be applicable for handling and during transportation. The MTE should be required to be handled with care, avoiding any type of stress that may result in damage and impair operational exploitation. The MTE should be transportable by road, air and rail.

(u) **Packaging.** Each MTE should be delivered in hermetically sealed FRP packages or equivalent, capable of withstanding varied environmental conditions, thereby, preventing any damages during transportation and storage.

(v) **Safety Features.** The MTE should cater for suitable safeties to prevent the battery from accidental initiation during handling and storage.

(w) **Service Life.** Shelf life of the MTE ***should not be less than 10 years.***

(x) **Reliability.** Not less than 0.95 for the MTE as a system.

(y) **Documentation.** The documentation to be provided must include Technical Description, Maintenance & Operational Manual and any other document felt necessary. All requisite documentation are to be forwarded prior offering the prototype for UTRR.

PART III: CRITICAL TECHNOLOGY AREAS

18. The capability assessment of the DAs will largely depend on their ability to design and develop critical sub-components like acoustic section, battery section electronic section, afterbody and dispensing assembly. It is imperative that the project attains complete independence in providing Indian Navy with a MTE with high reliability, safety and assured shelf life of 10 years. **The contribution of the Indian industry in acquiring and developing technologies in critical areas, if any, shall be a key criterion in assessment of the proposal.**

19. The assessment of critical technologies for the Project MTE offered by the DA(s)/Consortium must be supported with all Rights and Licenses(IPR) as mentioned at **Appendix 'B'**.

PART IV: GUIDELINES FOR FORMATION OF ASSOCIATION OF PERSONS(AoP) OR CONSORTIUM

20. Where an AoP/Group of Eol recipients("Consortium") comes together to implement the project in accordance with the mechanisms outlined under Para 5(b) above, there must exist, at the time of responding to Eol, an '**Association of Persons(AoP) Agreement**' to form an AoP i.e. Consortium to execute and implement the complete 'Make' project.

21. Where the Eol Respondent is an AoP/Consortium, it shall, while responding to the Eol, comply with the following additional requirements:-

- (a) Number of members in a Consortium shall not exceed 05(five).
- (b) The Eol Response should contain requisite information for each member of the AoP/Consortium.
- (c) Members of the AoP/Consortium shall nominate one member as the Lead Member(the 'Lead Member').
- (d) The Eol Response should include a description of the roles and responsibilities of individual members, particularly with reference to production arrangements in India and R&D activities for which IPRs will vest with MoD as per **Appendix 'B'**.
- (e) An individual Eol respondent cannot at the same time be member of an AoP/Consortium responding to the Eol. Further, a member of a particular responding AoP/Consortium cannot be member of any other Consortium responding to the Eol.
- (f) Members of the AoP/Consortium shall enter into a legally binding Agreement, substantially in the form specified at **Appendix 'C'** for the

purpose of responding to the EoI. The Agreement to be submitted along with the EoI Response, shall, *inter alia*:

- (i) Form the basis for the AoP members to enter into a contract and perform all the obligations of the DA in terms of the contract, in case a development contract to undertake the 'Make' Project is awarded to the Consortium;
- (ii) Clearly outline the proposed roles and responsibilities, if any, of each member;
- (iii) Include a statement to the effect that members of the AoP/Consortium shall be liable jointly and severally for all obligations of the DA in relation to the 'Make' Project as required under these Guidelines.

Change in Membership of a Consortium

22. Change in the composition of an AoP/Consortium will not be permitted after the submission of EoI responses until the award of a Development Contract for Prototype Development.

23. Where the EoI Respondent is an AoP/Consortium, change in the composition of a Consortium AoP may be permitted by the Authority after the award of a development contract only where:-

- (a) The Lead Member continues to be the Lead Member of the AoP/ Consortium and shall not be changed under any circumstances;
- (b) The non-lead substitute member(s) shall continue to meet eligibility criteria for membership of an AoP/ Consortium;
- (c) The new Member(s) expressly adopt(s) the EoI Response and the Development Contract already made on behalf of the AoP/Consortium as if it/ they were a party to it originally and is/are not a Member of any other Consortium short-listed for the 'Make' Project, while undertaking the joint and several or joint liabilities(as applicable) of the member it/they are replacing.

24. Any change in the composition of an AoP/Consortium shall require prior approval of MoD/ DDP.

25. The approval to such changes shall be at the sole discretion of MoD/ DDP and must be approved by them in writing for the approval to take effect.

26. The modified AoP/Consortium/Partners shall submit a revised 'Association of Persons Agreement'.

Miscellaneous Provisions

27. Any violation of any of the guidelines by any company shall render it liable to initiation of proceedings for suspension and/or banning of business dealings as per the Guidelines for Putting on Hold, Suspension, Debarment and any other penal action on the Entities dealing with the Ministry of Defence, as promulgated by Government from time to time, will be applicable on procurement process and bidders.

PART V: ELIGIBILITY CRITERIA

28. Indian entity satisfying all of the following criteria shall be considered as eligible 'Indian Vendor' for issue of EoI by PFT:-

(a) Public limited company, private limited company, partnership firms, limited liability partnership, one Person Company, sole proprietorship registered as per applicable Indian laws. In addition, such entity shall also possess or be in the process of acquiring a license as per DIPP's licensing policy.

(b) The entity has to be owned and controlled by resident Indian citizens; entity with excess of 49% foreign investment will not be eligible to take part in 'Make' category of acquisition.

29. Start-ups recognised by the DIPP are eligible for the project. Start-ups registered under the following categories and industry domains are eligible:-

(a) Categories.

- (i) Engineering
- (ii) Manufacturing
- (iii) Research
- (iv) Government

(b) Industry Domains.

- (i) Aeronautics/Aerospace & Defence
- (ii) Technology Hardware

30. This EoI is being published on MoD/DDP website inviting Companies to participate in the 'Make-II' project and also issued to the potential vendors who have indicated willingness during the Feasibility Study to participate in the development of MTE.

31. **Vendors are required to be compliant to Chapter III-A of DPP 2016 published in www.makeinindia.gov.in**

PART VI: ASSESSMENT PARAMETERS

32. The assessment of the EoI responses would be based on the Evaluation Criteria, details of which are elaborated in the succeeding paragraphs:-

33. **Technical Capability Criteria**. The Project MTE is a store which will require sound knowledge of hardware technology, explosive characteristics and qualification methodologies. The DA should have a good understanding of Project Management, required for the development of MTE. The contribution of the DA in acquiring and developing technologies in critical areas shall be an important criterion in assessment of the proposal. The respondents to this EoI(including start-ups) are required to furnish information about their technical capabilities as per **Appendix 'D'**.

PART VII: EVALUATION CRITERIA OF ASSESSMENT PARAMETERS

34. **Evaluation Criteria for All Entities Other Than 'Start-Ups'**. The responses to this EoI will be evaluated based on the assessment parameters given at **Appendix D** to identify Companies/Consortia with proven R&D, Indigenisation and Technical strengths and capabilities. The weightage for each of the criteria and sub-criteria at **Appendix D** would be finalised by the Project Facilitation Team.

35. **MoD, Govt of India reserves the right to modify these criteria at any time before the responses are opened for evaluation.** MoD, Govt of India also reserves the right to disqualify a respondent/consortium if he/they fail to comply with specific criteria at any stage of the evaluation process by the PFT. **No amendment/change in response to EoI will be accepted under any circumstances once the EoI response is submitted.**

PART VIII: DOCUMENTS TO BE SUBMITTED BY EoI RESPONDENTS

36. Following documents are required to be submitted by EoI respondents:-

- (a) Annexure I of Appendix 'A'.
- (b) Appendix 'C', if applicable
- (c) Appendix 'D' (Technical Criteria).
- (d) Information Performa as per Appendix 'E'.
- (e) Certificate as per Appendix 'F'.
- (f) Documents in proof of Evaluation Criteria(i.e. Technical capability).

(g) MSME certificate, if claiming to be MSME. Start-ups are to submit their certificate in specified domain registered with DPITT.

37. The Eol respondents shall submit three(03) copies of response to Eol, clearly marking one copy as 'Original Copy' and the remaining two as 'Copy No 2 & 3'. The respondents are also required to submit a soft copy of the response to Eol in a CD/ DVD. In the event of any discrepancy between the content in copies of documents submitted, the contents in the 'Original Copy' shall govern/prevail. Each page of the response will bear the signatures of the authorised signatory of the Company/Lead Member in a Consortium.

38. **Guidelines for Submitting Eol Responses.**

(a) The responses should be submitted strictly as per the formats given in respective appendices. Should a Vendor/Consortium need to mention any other information, a separate column may be added as the last column only.

(b) All response appendices should be submitted in a single file/folder. Supporting documents/additional reference should be submitted in a separate folder with proper reference mentioned against each parameters/sub parameters/sub sub parameters in respective appendices.

(a) Any supporting document/evidence without any reference to specific parameter of criteria will not form part of the assessment.

39. The envelopes shall be addresses as under:-

Chairman, PFT
Project MTE
Directorate of Armament Production & Indigenisation
IHQ MoD (Navy)
West Block-V(FF), Wing-5
RK Puram
New Delhi 110 066 Email : dapi.ihq@navy.gov.in Ph: 011-26107491

40. The response to this Eol must be submitted by **1600 hrs** on **19 Nov 2020** at the address mentioned above.

41. A Company/Consortium can submit only one response to this Eol. If a Company submits more than one response, then all responses of the Company will be rejected and the Company/Consortium, to which the Company belongs, would not be assessed further.

42. MoD, Govt of India at its discretion can extend this deadline for the submission of responses to Eol and the same shall be notified in writing.

PART IX: QUERIES AND CLARIFICATIONS

43. Following aspects will govern the procedure for queries and clarifications:-

(a) **Companies/Consortium may submit written queries/clarification/amplifications on specific issues by 22 Oct 2020.** Consolidation and examination of the queries received will be carried out by the PFT and clarification will be given to all the industries during the pre-response meeting.

(b) **Pre-Response Meeting.** A pre-response meeting is scheduled on **27 Oct 2020 at 1430 hrs at Directorate of Armament Production & Indigenisation**, West Block-V(FF), Wing-5, RK Puram, New Delhi 110 066 to clarify the issues/queries raised to facilitate submission of response.

(c) If deemed necessary, a written reply may be given to all respondents after the meeting.

PART X: MISCELLANEOUS

44. This EoI is being invited with ***no financial commitment*** on part of the Govt. of India/ MoD. Govt of India reserves the right to withdraw or change or vary any part thereof at any stage. MoD, Govt of India also reserves the right to disqualify any company should it be so necessary at any stage on grounds of national security.

45. Respondent/consortium would be disqualified if they make false, incorrect, or misleading claims in their response to this EoI. A certificate as per the format at **Appendix 'F'** would be furnished as part of the response, including respective consortium partners, where applicable.

46. Respondent/consortium should furnish an undertaking (format attached at **Appendix 'G'**) for their claim to indigenous design.

47. **Note.** The above guidelines are to be read in conjunction with the guidelines under Chapter III-A of DPP 2016.


(S Dutt Roy)
Commander
Secretary, PFT
Project MTE
28 Sep 20

Enclosure:-Appendices 'A' to 'G'

Distribution: - Shortlisted vendors & hosted on MoD/DDP website

INDIGENOUS CONTENT ASPECTS

Definitions.

1. 'Indigenous Content'(IC) for an equipment or an item shall be arrived at by excluding from the total cost of that equipment/item the following elements at all stages(tiers) of manufacturing/production/assembly:
 - (a) Direct costs(including freight/transportation and insurance) of all materials, components, sub-assemblies, assemblies and products imported into India.
 - (b) Direct and Indirect costs of all services obtained from non-Indian entities/citizens.
 - (c) All license fees, royalties, technical fees and other fees/payments of this nature paid out of India, by whatever term/phrase referred to in contracts/agreements made by vendors/sub-vendors.
 - (d) Taxes, duties, cess, octroi and any other statutory levies in India of this nature.
2. Further, "on cost" basis for 'Buy (Indian IDDM)' shall imply that IC is required as specified under Para 6 of Chapter I of DPP 2016, read with additional specific requirements in this regard, if any, mentioned in the EoI/RFP.

Reporting Requirements.

3. IC as defined in Para 1 and 2 above shall be mandatorily reported by all stages (tiers) of manufacturing/production/assembly to their higher stages(tiers). All stages(tiers) are required to aggregate IC based on certifications and inputs from lower tiers, as well as on the basis of their own procurement actions and manufacturing activities undertaken. The final aggregation of IC shall be undertaken by the prime(main) contractor with whom an acquisition contract is signed by the Ministry/SHQ.
4. All contracts, sub-contracts, agreements and MoUs made by prime(main) contractors (and their lower tier suppliers/vendors) with their business partners/suppliers, insofar as these contracts, agreements or MoUs relate to the main acquisition contract, shall mandatorily incorporate the definition and reporting requirements for IC in terms of Para 3. Similarly, these business partners/suppliers shall sequentially incorporate these definitions and reporting requirements with their next levels of business partners/suppliers and so on, till the lowest tier in the manufacturing/production/assembly chain.

Audit.

5. The Ministry of Defence can exercise its right to conduct an audit of all certifications and costs relevant to IC at all or any stages(tiers) of manufacturing/production/assembly, starting from the prime(main) contractor downwards. The audit(s) could be conducted by the Ministry itself and/or by an agency/institution/officer(s) nominated by the Ministry, as may be decided by the Ministry.

6. All contracts, sub-contracts, agreements and MoUs made by prime(main) contractors (and their lower tier suppliers/vendors) with their business partners/suppliers, insofar as these contracts, agreements or MoUs relate to the main acquisition contract, shall mandatorily incorporate the right of Ministry of Defence to conduct an audit in terms of Para 5. Similarly, these business partners/suppliers shall sequentially incorporate these definitions and reporting requirements with their next levels of business partners/suppliers and so on, till the lowest tier in the manufacturing/production/assembly chain.

Certification.

7. All relevant deliveries made under contract shall be accompanied by a certificate of IC issued by the Chief Financial Officer(CFO). All final deliveries under contract shall be accompanied, in addition to the certificate issued by the CFO of the prime(main) contractor as aforesaid, by its Company Auditor's certificate. An Indigenisation Plan for Buy (Indian-IDDM) will be required to be submitted by the vendor to meet the requirement of IC as specified in Para 6 Chapter I of DPP 2016. Further, the equipment offered for trial shall be accompanied with a certificate of IC issued by the CFO of the prime(main) bidder. The format for certification of IC by the CFO/ Company Auditor shall be as per **Annexure I to this Appendix.**

8. In case mandatory IC is not achieved by a vendor and/or if a false certificate is furnished by a vendor/sub-vendor, the Ministry can initiate proceedings for banning or suspension of business dealings with the erring Indian vendor/sub-vendor and its allied firms for all future contracts for a period up to 5 years. This right can be exercised by the Ministry at any point of time; and initiation of banning or suspension proceedings, if ordered, shall be in addition to any other action that may be taken/ordered by the Ministry against the erring vendor/sub-vendor under any law(s) in force.

Miscellaneous.

9. In the event of non-incorporation of the definitions and/or audit requirements laid down under Para 1 to 6 in contracts or agreements vendors with next tier at any stage (tier) of manufacturing/production/assembly, it shall be presumed that items/services provided by that stage/tier to the next(tier) have no IC for the purposes of the DPP. Similarly, in the event of non-certification of IC at any stage(tier) as required herein, it shall be presumed that items/services provided by that stage/tier to the next stage(tier) have no IC for the purposes of the DPP. In such cases, the Ministry of Defence can take any of the steps under Para 8 above against erring vendors/sub-vendors.

Annexure I to Appendix A

(Refers to Para 7)

FORMAT FOR CERTIFICATION OF INDIGENOUS CONTENT

This is to certify that we, _____ (Name of Prime/Main Vendor) have achieved/are offering the following IC in the accompanying delivery under contract/equipment being offered for trials/prototype, as defined under the Defence Procurement Procedure and as required under the RFP/Contract (tick whichever is applicable) No. _____ dated _____.

Description of Supplies and Indigenous Content Therein:

Sl. No.	Description of Supplies	IC achieved/ being offered	IC required to be achieved/ offered as per RFP/Contract
1			
2			

Signed by:

1. CFO

----- (Name of Prime/Main Vendor)

2. Statutory Auditor(if required under Appendix A)

----- (Name of Prime/Main Vendor)

INTELLECTUAL PROPERTY RIGHTS OF GOVERNMENT
IN 'MAKE' PROJECTS

Guiding Principles.

1. The Government shall retain only a license in the Intellectual Property being generated under contract; and the contractor retains title or ownership and all other rights in intellectual property that are not granted to the Government, subject to conditions prescribed herein.

2. During the development of prototype, if any technology/product is developed, which the Government considers to be sensitive or classified and needs to be restricted for use in other purposes or for export, the Government through PFT or any other expert or body may identify such technology/product and shall retain the full ownership of IPRs in respect of such technology/product.

3. All technology licensing is divided up between two mutually exclusive categories of deliverables: (a) Technical Data(TD)¹ and (b) Computer Software(CS)². The Government shall also have certain rights to subject inventions and patents generated under the 'Make' contract.

4. The EoI shall contain details of (a) the delivery requirements, storage formats and storage medium; and (b) the associated data rights, in all technologies required to be developed or delivered under the 'Make' contract. Officials connected with award of 'Make' projects shall ensure that all such delivery requirements are clearly stated in the EoI and the 'Make' contract signed, if any, including delivery and form in which source code is required as a contract deliverable.

5. The Government's standard license rights in (a) subject inventions and associated data; and (b) all other data generated under the 'Make' contract, including technical data

¹'Technical data' means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

²(a)'Computer software' means computer programs, source code, source code listings, object code listings, design details algorithms, processes, flow charts, formulae and related material that would enable the software to be reproduced, recreated or recompiled. Computer software does not include computer data bases or computer software documentation. (b) 'Computer program' means a set of instructions, rules, or routines recorded in a form that is capable of causing a computer to perform a specific operation or series of operations. (c) 'Computer software documentation' means owner's manuals, user's manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software. (d) 'Computer data base' means a collection of data recorded in a form capable of being processed by a computer. The term does not include computer software.

and computer software whether associated with such subject inventions or otherwise, shall be 'Government-Purpose Rights' (GPR). In respect of subject inventions, the Government shall hold a non-exclusive, non-transferable, irrevocable, paid up(royalty-free) license to practice, or have practiced for on its behalf, the subject invention throughout the world.

6. These guiding principles shall apply at both the prime and subcontract levels; i.e., the prime DA(s) shall incorporate the rights of the Government as prescribed in this Annexure in all their subsequent sub-contracts and agreements insofar as technology development under 'Make' projects is concerned.

Government Rights

7. The Government shall have 'Government-Purpose Rights' and 'Unlimited Rights' as explained below:-

8. For all subject inventions³ under the 'Make' contract, including technical data and computer software associated with such subject inventions, the Government shall hold GPRs, in that it shall hold a non-exclusive, non-transferable, irrevocable, paid up(royalty-free) license to practice, or have practiced for on its behalf, the subject invention throughout the world. These GPRs shall automatically convert to 'Unlimited Rights' as defined under this section upon the expiry of ten years.

9. For the purpose of all technical data and computer software, whether related to subject inventions or otherwise, GPRs shall imply the right to use such technical data and computer software within the Government without restriction and the right to authorise any other entity for any government purpose including re-procurement. More specifically, GPRs include the rights to:-

- (a) Use, modify, reproduce, release, perform, display, or disclose technical data within the Government without restriction; and
- (b) Release or disclose technical data outside the Government and authorise persons to whom release or disclosure has been made to use, modify, reproduce, release, perform, display, or disclose that data for Government purposes.
- (c) Form, Fit and Function data and Manuals or instructional and training materials for installation, operation, or routine maintenance and repair;
- (d) Computer software documentation required to be delivered under the 'Make' contract;

³'Subject Invention' implies any invention of the contractor conceived or first actually reduced to practice in the performance of work under a Government Contract. 'Invention' implies any invention or discovery that is or may be patentable or otherwise protectable under the Patent Laws in force in India.

(e) Corrections or changes to computer software or computer software documentation furnished to the contractor by the Government;

(f) Computer software or computer software documentation that is otherwise publicly available or has been released or disclosed by the contractor or subcontractor without restrictions on further use, release or disclosure other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the software to another party or the sale or transfer of some or all of a business entity or its assets to another party;

10. For the purposes of these guidelines, 'Government Purpose' means an activity in which the Government of India is a party, including cooperative agreements with international or multinational Defence organisations, or sales or transfers by the Government of India to foreign Government or international organisations. Government purposes include competitive procurement, but do not include the rights to use, modify, reproduce, release, perform, display, or disclose technical data for commercial purposes or authorise others to do so.

11. In addition to standard GPRs, Government rights in computer software to be delivered under contract shall also include the right to:-

(a) Use of a computer program with Government computer(s);

(b) Transfer to another Government computer;

(c) Make copies of computer software for safekeeping; backup or modification purposes;

(d) Modify computer software;

(e) Disclose to service contractors;

(f) Permit service contractors to use computer software to diagnose/correct deficiencies, or to modify to respond to urgent or tactical situations; and

(g) Disclose to contractors or any other third-parties for proposes of emergency repair and overhaul.

March-In Rights.

12. The Government shall have 'March-In' rights for all items covered under its 'Government-Purpose Rights'. 'March-In' Rights shall include the right to work the patent, either by itself, or by another entity on behalf of the Government, in case the contractor fails to work the patent on its own within a specified and reasonable period of time.

13. Under its march-in rights, the Government can require the contractor to grant, or may itself grant license for, inter alia, the following reasons:-

- (a) The contractor fails to work the patent towards practical application within a reasonable time; or
- (b) Where health and safety requirements so require the Government to act in public interest;
- (c) For National Security Reasons;
- (d) To meet requirements for public use not reasonably satisfied by the contractor;
- (e) For failure of the contractor to substantially manufacture the products embodying the subject invention in India; or
- (f) For failure of the contractor to comply with any of the requirements laid down under these guidelines.

Miscellaneous

14. The contractor is required to have a timely and efficient disclosure system in place for reporting of intellectual property generation under the 'Make' contract to the Ministry of Defence. Failure to disclose in timely manner, or failure on part of the contractor to invoke his/her default right of ownership, shall imply that all IPRs shall ab-initio vest in the Government of India. The contractor may elect to retain title of any invention made in the performance of work under a contract. If the contractor does not elect to retain title, the title shall ab-initio vest in the Government as stated above and the contractor shall only be entitled to a license on such terms and conditions that the Government may deem it fit. Such license to the contractor shall usually be (a) revocable, non-exclusive and royalty-free; (b) extend to its domestic subsidiaries and affiliates; and (c) include the right to sublicense; but (d) shall not be transferable without prior approval of the Government.

15. The contractor shall also be required to submit periodic reports about commercialisation and manufacturing activities undertaken for products embodying the subject invention under 'Make' contracts.

16. The Government's IPRs shall flow down from the prime contractor to all sub-contractors at all tiers; that is, every sub-contractor will have the same obligations vis-à-vis the Government as applicable to the prime contractor under the main procurement contract. To this end, the subcontractors shall have limited contractual privity with the Government solely for the purposes of their IPR obligations to the Government.

17. The ownership of any rights by the contractor does not include an absolute right to transfer of any software, product or documentation; and such transfer, including export thereof, shall continue to be governed by and be subject to the Export Policy, Export Guidelines and all applicable laws, rules, regulations, orders and instructions of the Government of India. All such transfers and exports shall require prior and explicit approval of the Ministry of Defence.

18. Where the DA is not a consortium, ownership rights in intellectual property(IP) being generated under the 'Make' contract shall vest with the Government upon dissolution of such DA. Where the DA is a consortium, the ownership rights in the IP generated under the 'Make' contract, upon dissolution of the consortium, shall vest amongst the partners as per their agreement on the subject contained in the joint partnership agreement of the consortium, without government rights as licensee being adversely affected in any manner.

Appendix 'C'

(Refers to Para 21(f) & 36(b))

ILLUSTRATIVE: 'ASSOCIATION OF PERSONS AGREEMENT'

THIS ASSOCIATION OF PERSONS (AOP) AGREEMENT is entered into on this _____ day of 20.....

AMONGST

1. { Limited, a company incorporated under the Companies Act} and having its registered office at (herein after referred to as the 'First Part' which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

2. { Limited, a company incorporated under the Companies Act} and having its registered office at(hereinafter referred to as the 'Second Part' which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

3. { Limited, a company incorporated under the Companies Act and having its registered office at(hereinafter referred to as the 'Third Part' which expression shall, unless repugnant to the context include its successors and permitted assigns)}

AND

4. { Limited, a company incorporated under the Companies Act and having its registered office at(hereinafter referred to as the 'Fourth Part' which expression shall, unless repugnant to the context include its successors and permitted assigns)}The above mentioned parties of the FIRST, SECOND, {THIRD and FOURTH} PART are collectively referred to as the 'Parties' and each is individually referred to as a 'Party'.

WHEREAS,

(a) The Ministry of Defence, Government of India(hereinafter referred to as the 'Buyer' which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) has invited responses(the 'responses')to its Expression of Interest No..... dated..... (the 'Eoi') for short-listing of bidders for development of- Project (the 'Project').

(b) The Parties are interested in jointly bidding for the Project as an Association of Persons ('AoP') in accordance with the terms and conditions of the EoI document and other documents in respect of the Project and

(c) It is a necessary condition under the EoI document that the members of the AoP shall enter into an Association of Persons Agreement and furnish a copy thereof with the Response.

NOW IT IS HEREBY AGREED as follows:

1. Definitions and Interpretations.

In this Agreement, the capitalised terms shall, unless the context otherwise requires, have the meaning ascribed thereto under the EoI.

2. Association of Persons/Consortium.

(a) The Parties do hereby irrevocably constitute an Association of Persons/Consortium (the 'Consortium') for the purposes of jointly participating in the bidding process for the 'Make' Project and executing and implementing the complete 'Make' Project up to the completion of the Production Phase or any subsequent Lifecycle Support or technology Refresh/Upgrade Contract that MoD places on the Lead Member of AoP before completion of the Warranty Period, whichever is later.

(b) The Parties hereby undertake to participate in the 'Make' Project only through this AoP Agreement and not individually and/or through any other AoP/ Consortium constituted for this Project, either directly or indirectly or through any of their Associates.

3. Covenants.

The Parties hereby undertake that in the event the AoP is declared the selected Development Agency and awarded the project, the parties shall enter into a Contract with the Buyer for performing all its obligations as the Development Agency in terms of the contract for the Project.

4. Role of the Parties.

The Parties hereby undertake to perform the roles and responsibilities as described below:-

(a) Party of the First Part shall be the Lead member of the Consortium for and on behalf of the Consortium during the bidding process and until the Appointed Date under the Contract.

- (b) Party of the Second Part shall be responsible for
- (c) Party of the Third Part shall be responsible for
- (d) Party of the Fourth Part shall be responsible for

5. Joint and Several Liabilities.

The Parties do hereby undertake to be jointly and severally responsible for all obligations and liabilities relating to the Project and in accordance with the terms of the EoI and subsequently in accordance with the development contract, if and when awarded.

6. Lead Member.

Without prejudice to the joint and several liabilities of the parties, each party agrees that it shall communicate with the MoD in matters of the EoI and the Development and Production Contract, as applicable through the Lead Member and the Buyer shall be entitled to communicate with such Lead Member as the representative of all the members. Each party agrees and acknowledges that:-

- (a) The Lead Member shall take prior written consent by all participating AoP members before sending any communication regarding a decision(including without limitation, any waiver or consent), action or omission, before communicating the same to MoD. The AoP Members shall send their responses to the Lead Member and ensure that stipulated timelines of MoD are met with by the Lead Member;
and;
- (b) Any decision(including without limitation, any waiver or consent), action, omission communicated by the Lead Member on any matters related to the Contracts shall be deemed to have been on its behalf and shall be binding on it. The Buyer shall be entitled to rely upon any such action, decision or communication from the Lead Member;
and;
- (c) Any notice, communication, information or documents to be provided to the Development Agency shall be delivered to the authorised representative of the Development Agency(as designated pursuant to the Contract) and any such notice, communication, information or documents shall be delivered to all the Parties by the Lead Member.

7. AoP Bank Account/ Payments.

The Parties will open a separate single bank account('AoP Account') for payments to be received from the Buyer in the name of the AoP which account shall be operated jointly by all the AoP members. Each of the Parties shall raise separate invoices on Buyer, which will be presented to the Buyer by the Lead Member under a Covering Letter. The Buyer shall make the payment(s) into the designated AoP account and the Buyer shall not in any manner be responsible or liable for the inter se allocation of payments, works etc. among the Parties. Disbursal of the amount lying in the AoP account to each of the Parties shall be made directly to such Party, from the AoP Account. Each Party shall be responsible for ensuring the Invoice and the accompanying documentation is complete and accurate.

8. Representation of the Parties.

8.1 Each Party represents to the other Parties as of the date of this Agreement that:

(a) Such Party is duly organised, validly existing and in good standing under the laws of its incorporation in India and has all requisite power and authority to enter into this Agreement;

(b) The execution, delivery and performance by such Party of this Agreement has been authorised by all necessary and appropriate corporate or governmental action and a copy of the extract of the charter documents and board resolution/power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Consortium Member is annexed to this Agreement and will not, to the best of its knowledge:-

(i) Require any consent or approval not already obtained;

(ii) Violate any Applicable Law presently in effect and having applicability to it;

(iii) Violate the memorandum and articles of association, by-laws or other applicable organisational documents thereof;

(iv) Violate any clearance, permit, concession, grant, license or other governmental authorisation, approval, judgment, order or decree or any mortgage agreement, indenture or any other instrument to which such Party is a party or by which such Party or any of its properties or assets are bound or that is otherwise applicable to such Party; or

(v) Create or impose any liens, mortgages, pledges, claims, security interests, charges or Encumbrances or obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects or business of such Party so as in all matters before the Buyer, signing and execution of all contracts and undertakings consequent to acceptance of the Consortium's proposal and generally dealing with the Buyer in all matters in connection with or relating or arising out of the Project.

9. Termination.

This Agreement shall be effective from the date hereof and shall continue in full force and effect until completion of the 'Make' project and in accordance with the contract, in case the Project is awarded to the Consortium. However, in case the Consortium is either not prequalified for the Project or does not get selected for the award of the Project, the Agreement will stand terminated or upon return of the Bid Security, if any, by the Buyer to the Bidder, as the case may be. Upon completion of the Development Contract, this Agreement may be terminated by the Parties upon written mutual consent, if the AoP fails to win Contract from MoD, during the implementation of the 'Buy(Indian-IDDm)' Project.

10. Miscellaneous.

(a) This Agreement shall be governed by the laws of India.

(b) In the event of a dispute, the Parties shall attempt to amicably resolve the same, failing which the dispute shall be referred to arbitration which shall be resolved in accordance with the Arbitration & Conciliation Act, 1996. The venue for dispute resolution shall be New Delhi, India. The arbitration proceedings shall be conducted in English language. The arbitration award shall be final and binding upon the Parties.

(c) The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of the Buyer.

IN WITNESS WHEREOF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED For and on behalf of Lead Member by:

(Signature)
(Name)
(Designation)
(Address)

SIGNED, SEALED AND DELIVERED For and on behalf of SECOND PART

(Signature)
(Name)
(Designation)
(Address)

SIGNED, SEALED AND DELIVERED For and on behalf of THIRD PART

(Signature)
(Name)
(Designation)
(Address)

SIGNED, SEALED AND DELIVERED For and on behalf of FOURTH PART

(Signature)
(Name)
(Designation)
(Address)

In the presence of: 1.
 2.

Appendix 'D'
(Refers to Para 33, 34 & 36(c))

TECHNICAL CAPABILITY ASSESSMENT CRITERIA

Name of the vendor:

<u>Sl. No</u>	<u>Criteria and Sub- Criteria</u>	<u>Vendor Submissions</u>				<u>Remarks, if any</u>
		<u>Lead Bidder</u>	<u>Partner 1</u>	<u>Partner 2</u>	<u>Partner 3</u>	
(i)	Execution of similar projects for military users in India and abroad					
(ii)	Execution of similar projects for other users in India and abroad					
(iii)	Execution of projects pertaining to critical technology area					
(iv)	Adherence to timelines, minimization of slippages, cost overruns					
(v)	Approach to meet user functionalities. Specific areas where assistance of Academia/ other industries where the resident expertise is not available with the respondent is to be indicated. Nature of partnership/ assistance to be sought is to be indicated.					
(vi)	Proposed system configuration. Approach to meet the specifications stipulated giving details of methodology to be adopted					
(vii)	Approach to address assembly and inter-operability issues.					

Station:
Date:

Signature

Company Seal

INFORMATION PERFORMA: FOR RESPONDENTS OTHER THAN START-UPS

1. Name of the Company
2. Name of CEO with Designation
3. Address of the Registered Office
4. Address of the Factory/Factories
5. Company Website(s)
6. Date of Incorporation
7. Brief History of the Company
8. Category of Industry(Large Scale/Medium Scale/Small Scale)
9. Nature of Company(Public Limited/Private Limited)
10. Nature of Business(Please give broad product range against each)
 - (a) Manufacturer
 - (b) Trader
 - (c) Sole Selling or Authorised Agent
 - (d) Dealer
 - (e) Assembler
 - (f) Processor
 - (g) Re-packer
 - (h) Service Provider
11. Details of Current Products
 - (a) Type/Description
 - (b) Licensed/Installed Capacity
 - (c) Annual Production for preceding 3 Years

12. Details of Bought Out Items
 - (a) Main Equipment
 - (b) Component/Assembly/Sub Assembly/Processes
 - (c) Name and Address of the Sub-Contractor

13. Sources of Raw Materials
 - (a) Imported/Indigenous
 - (b) Brief Description
 - (c) Estimated CIF Value
 - (d) Percentage FE Content in Final Product

14. Details of Foreign Collaborations
 - (a) Product
 - (b) Name and Address of Collaborator
 - (c) Year of Collaboration
 - (d) Current Status of the Collaboration(whether expired or current)

15. Technology Received from Abroad and Assimilated

16. Technology Transfer MoUs Signed/Under Negotiation

17. Products Already Supplied
 - (a) To Indian Army/Air Force/Navy
 - (b) PSUs
 - (c) DRDO and its Laboratories
 - (d) Ordnance Factories
 - (e) Any other Defence Organisation
 - (f) To other Principal Customers

18. Details of Registration Certification held(along with product details)
 - (a) DGQA
 - (b) DGAQA/DGNAI
 - (c) CEMILAC
 - (d) DGS&D

- (e) Other Defence Departments
 - (f) Other Government Department
19. Details of ISO Certification(Attach certificate, if any)
20. Details of Pollution Control Certificate(Attach certificate, if any)
21. Latest Certificate of Incorporation by the Registrar of Companies(RoC), if any
22. Details of Credit Rating Certificate(Attach certificate, if any)
23. Details of Patent/IPR certificates(Attach certificate, if any)
24. Details of Permanent Man Power(with the details of qualifications)
- (a) Technical
 - (b) Administrative
25. Total Area of Factory
- (a) Covered(sq. mtrs)
 - (b) Uncovered(sq. mtrs)
 - (c) Bonded Space Available(sq. mtrs)
26. Electric Power
- (a) Sanctioned
 - (b) Installed
 - (c) Standby
27. Details of Important Facilities
- (a) Production (including Heat Treatment, Dies, Jigs and Fixtures)
 - (b) CAD, CAM, ROBOTS and Other Advanced Technology Tools
 - (c) Environmental Test Facilities.
 - (d) Tool Room, Metrology and Test Equipment and Facilities
 - (e) Type of Instrument
 - (f) Make and Model
 - (g) Date of Purchase
 - (h) Frequency of Calibration

28. Details of Developmental Facilities
 - (a) R&D Facilities Available
 - (b) Number of Technical Manpower
 - (c) Inspection and Quality Control of Raw Material, Components and Finished Products.
 - (d) Assistance from Central Agency/Agencies for Testing/Calibration
 - (e) Laboratory and Drawing Office Facility
 - (f) Percentage of Total Turn-Over Spent on R&D during the Last Three Years
29. Area of Interest for Future Expansion/Diversification (please provide adequate details)
30. Future Plan(if any) in respect of Expansion Program, Installation of Additional Machines/Test Facilities
31. Turn-Over during the last three Financial Years(Attach relevant documents, if any).
32. Present Net Worth of the Company(Attach relevant documents, if any)
33. Any other Relevant Information
34. Contact Details of the Executive Nominated to co-ordinate with the Assessment Team(please provide telephone, mobile and e-mail address).

ADDITIONAL INFORMATION

35. Outline features of the proposal.
36. Recommended stages/phases of development with priorities and time schedules.
37. Milestones that can be clearly demonstrated to facilitate project monitoring.
38. Estimated capital expenditure for prototype development.
39. Roles Responsibilities and expertise details of consortium members, if any.
40. Role of foreign technology provider, if any, including the agreement intended to be entered into on being shortlisted.

41. Requirement of specialised testing assistance where facilities are available only with DRDO/DGQA/DGQAQ/DGNAI.
42. Indicate the minimum order quantity for execution after the successful completion of the project(prototype development).
43. Undertaking to furnish the cost of the final product during evaluation stage itself, once the final configuration of the end product under development is frozen.
44. Details of the proposed facilities being created for MTE.
45. Any existing facility proposed to be used for production/ manufacture of MTE components.

INFORMATION PROFORMA: FOR START-UPS

1. Name of the Vendor/Company/Firm
2. Brief about the Company(Nature & category of company)
3. Contact Details
4. Local Branch/Liaison Office/Contact in Delhi
5. Details of Registration Certification held(along with product details). Attach certificate, if any
 - (a) DGQA
 - (b) DGAQA/DGNAI
 - (c) CEMILAC
 - (d) DGS&D
 - (e) Other Defence Departments
 - (f) Other Government Department
6. Membership of FICCI/ASSOCHAM/CII or other Industrial Associations. Give Name of Organisation and Membership number.
7. Credit rating of the company.
8. Details of Prototype/product to be developed
 - (a) Name of product

- (b) Description(attach technical literature)
- (c) Specification of Material
- (d) Technical Specifications
- (e) Dimensions/Weight of the product
- (f) Type of tests planned to be carried out post manufacturing
- (g) Proposed methodology for evaluation
- (h) Conformance to MIL grade/international manufacturing standards
- (j) Details of inspection agency/Accredited Lab planned to be involved
- (k) Details of safeties to be incorporated
- (l) Interface requirement
- (m) Indigenous Content
- (n) Product life
- (p) Guarantee/Warranty
- (q) Whether proposed product being offered is an invention/improvement/innovation? Please elaborate
- (r) Tentative cost of the product
- (s) Proposed timeline for development of prototype, and if successful, production and delivery timelines, along with the cost breakup
- (t) If the price varies with the number of procurement, please indicate cost breakup vis-à-vis number

9. Details of products developed earlier

10. Products Already Supplied

- (a) To Indian Army/Air Force/Navy
- (b) PSUs
- (c) DRDO and its Laboratories
- (d) Ordnance Factories
- (e) Any other Defence Organisation
- (f) To other Principal Customers

11. Execution of similar projects for military users in Indian and abroad

12. Execution of similar projects for other users in Indian and abroad

13. Execution of projects pertaining to critical technology area
14. History of successful supply orders(Attach relevant documents, if any)
15. History of past non-performing contracts(Attach relevant documents, if any)
16. Pending litigation/Litigation history(Attach relevant documents, if any)
17. Capital Asset of the Company
18. Turn-over during last three Financial Years(Attach relevant documents, if any)
19. Present Net Worth of the Company(Attach relevant documents, if any)
20. Net profit in the last five years
21. Any other relevant information

Declaration. It is certified that the above information is true and any changes will be intimated at the earliest

CERTIFICATE

It is certified that information submitted in the documents as part of the response to Expression of Interest for Project MTE is correct and complete in all respects. It is acknowledged that the company and/or all consortium members will be disqualified from further participation if any information provided is found to be incorrect.

Signature with Company Seal

Company No 1 Company No 2 Company No 3 Company No 4 Company No 5

UNDERTAKING TO COMPLY WITH INDIGENOUS DESIGN

We, _____("Name of Vendor"), do hereby certify, undertake and confirm that:

1. The Design of _____("Named Product"), as claimed by us in response to the EoI is owned partly or wholly by us/by an Indian entity.

2. Further, we confirm that the Design of the Named Product, as claimed by us, has not been licensed from a foreign third party except for standard software licences such as, but not limited to OS / Database / _____(Strikeout / Specify as applicable).

3. The ownership of the Design, as claimed by us, enables us to manufacture, realise, sell, provide through Life Support, modify and upgrade the Named Product without any encumbrances, except as specified below: (If any form of encumbrances exist on the product or any of its subsystems these should be elaborated here)

4. We further claim that we own the following IP Rights in relation to the design of the Named Product: (Specify any Patents, Registration of Designs, if any, held by the Vendor)

5. We also undertake to permit MoD/MoD appointed Specialists Committee, to inspect/carry out technical audit at our premises of the applicable documents, such as Design Reports, Drawings, Specifications, Software Documents & Codes, Gerber files, etc, as may be reasonably necessary and required to prove the above claim of ownership of the Design of the Named Product. (Examination on site at company's premises only. Documents, in any form, are not be sought nor required to be submitted for examination outside the Company's premises)

6. Failure on our part to prove the ownership of the Design of the Named Product by us/by an Indian entity or submission of any false undertaking or claim as indicated in the response at any post contract stage of the intended procurement may make us liable to forfeiture of the PWBG to the extent of any direct losses or damages suffered by the MoD as a consequence of such false undertaking or failure to prove the ownership of the Design.