REQUEST FOR INFORMATION
LOITERING MUNITION (MEDIUM RANGE)

1. The Ministry of Defence, Government of India, intends to induct Loitering Munition (Medium Range) {LM (MR)} that is capable of sea based (ship mounted) operations. The MoD, GoI, intends to utilise the LM (MR) for operations from *IN* ships.

2. This Request for Information (RFI) for LM (MR) consists of three parts as indicated below:-

2.1. **Part I**. The first part of the RFI incorporates operational characteristics and features that should be met by the equipment. Important technical parameters of the proposed System are also mentioned.

2.2. **Part II**. The second part of the RFI states the methodology of seeking response of vendors. Submission of incomplete response format will render the vendor liable for rejection.

2.3. **Part III**. This part lays down the guidelines for framing Criteria for Vendor Selection/ Pre-Qualification in Buy Indian (IDDM), Buy (Indian) and Buy & Make (Indian) Cases.

PART – I

3. **Intended Use of the Equipment (Operational Requirements)**. The LM (MR) system is envisaged as a universal Loitering Munition system which is capable of operations from sea (ship mounted). These systems shall be utilised for targeting opportune targets at sea and on land.

4. **Important Operational and Technical Parameters**. The broad Operational Requirements (ORs) *iro* LM (MR) are placed at ***Appendix A***.

5. The vendors are to attach detailed technical specification of the equipment being offered as response to this RFI. **Compliance to the ORs should be submitted separately in a table**. Wherever possible, the technical specifications of the available system/ product along with the details of the equipment configuration should be mentioned.

6. Vendors should confirm that following conditions are acceptable: -

6.1. The solicitation of offers will be as per 'Single Stage – Two Bid System'. It would imply that a 'Request for Proposal (RFP)' would be issued soliciting the technical and commercial offer together, but in two separate sealed envelopes. The validity of commercial offers would be at least 18 months from the last date of submission of offers.

6.2. The technical offers would be evaluated by a Technical Evaluation Committee (TEC) to check the compliance of the RFP.

6.3. The equipment of all TEC cleared vendors would be put through a trial evaluation in India on a 'No Cost No Commitment' basis. A staff evaluation would be carried out by NHQ to analyse the result of field evaluation and shortlist the equipment for introduction into service.

6.4. Amongst the vendors cleared after Trial Evaluation, a Contract Negotiation Committee would decide the lowest cost bidder (L1) and conclude the appropriate contract.

6.5. Vendor would be bound to provide product support for time period specified in the RFP, which includes spares and maintenance tools/ jigs/ fixtures for field and component level repairs.

6.6. The vendors would be required to accept the general conditions of contract given in the Standard Contract Document at Chapter VI of DAP.

6.7. **Integrity Pact (if applicable)**. An integrity pact along with appropriate Earnest Money Deposit (EMD) is mandatory requirement in the instant case.

6.8. **Performance-cum-Warranty Bond**. Performance-cum-Warranty Bond both equal to 5% value of contract inclusive of taxes and duties is required to be submitted after signing of contract.

6.9. **Warranty**. The equipment shall be covered by warranty comprehensive for repair and replacement by the vendor for a period of two years from the date of completion of Joint Receipt Inspection (JRI).

6.10. **Product Support**. The inputs towards product support are required to ensure maintainability, performance and reliability throughout the operational life of the LM (MR) system.

6.11. **Training**. The vendor shall be responsible for the training of operators and maintainers. The training is to be conducted at *IN* establishments or at a mutually agreed location. The details of training schedule for the operators and maintainers are to be indicated accordingly.

6.12. **Documentation**. The vendor shall provide the Operator and Technical manuals as mentioned in the ORs.

6.13. **Upgradation of System**. The vendor shall give an undertaking to make available all future upgrades to the system hardware and software. As far as possible, such upgrades shall be possible with minimal change of system configuration.

PART - II

METHODOLOGY OF SEEKING RESPONSE OF VENDORS

7. **Procedure for Response**. The procedure for response is given at ***Appendix B*** along with the address to which the response is to be forwarded. The vendors are requested to follow the undermentioned guidelines: -

7.1. Vendor must fill the form of response as given in ***Appendix C*** of this RFI. Apart from filling details about company, details about the exact product meeting other generic technical specifications should also be carefully filled. Additional literature on the product can also be attached with the form. The details sought as per RFI questionnaire placed at ***Appendix D*** of this RFI be provided.

7.2. The filled form should be dispatched at under mentioned address:-

Directorate of Staff Requirements
Room No 206, D Block
Defence Offices Complex, Africa Avenue
Naval Headquarters
Ministry of Defence (Navy)
New Delhi 110023
Fax: 011-26771320
Email ID: dsr@navy.gov.in
PoC - CDR (SR) – Gunnery, Contact details 011-26771553

Planning Officer (Electronic System)
Dte Gen of Planning and Coordination, DDP
Ministry of Defence
Room No 516, C Block, Defence Offices Complex
KG Marg, New Delhi – 110001
Email ID: poes-ddp-mod.nic.in

7.3. Last date of acceptance of filled form is ***eight weeks*** from the date of posting of this RFI on MoD/ *IN* website. The vendors short listed for issue of RFP would be intimated.

8. The Government of India invites responses to this request only from Original Equipment Manufacturers (OEM)/ Authorised Vendors/ Government Sponsored Export Agencies (applicable in the case of countries where domestic laws do not permit direct export by OEMs). The end user of the equipment is Indian Navy.

9. The information is being issued with no financial commitment and the Ministry of Defence reserves the right to change or vary any part thereof at any stage. The Government of India also reserves the right to withdraw it, should it be so necessary at any stage. The acquisition process would be carried out under the provisions of DAP.

PART – III

GUIDELINES FOR FRAMING CRITERIA FOR VENDOR SELECTION/ PRE-QUALIFICATION IN BUY (INDIAN-IDDM)/ BY (INDIAN)

10. The guidelines prescribed for short-listing/pre-qualification of Indian vendors under Buy (Indian-IDDM) and Buy (Indian) cases are placed at ***Appendix E*** of this RFI.

Appendix A to RFI
(Refer Para 4)

OPERATIONAL REQUIREMENTS
LOITERING MUNITION (MEDIUM RANGE)

1. **Role**. The LM (MR) system is envisaged for operations from sea (ship mounted) and have the following capabilities: -

1.1. Provide all weather anti-ship and land attack capability against single and multiple targets.

1.2. Transfer of Loitering Munition (LM) control between multiple control stations on land and ships at sea.

1.3. Modular and scalable system architecture for installation and integration of additional sensors.

1.4. System should encompass G3N compatibility and be capable of undertaking operations in GNSS denied scenario.

2. **System Composition**. The basic configuration of LM (MR) shall be as follows: -

2.1. Loitering Munitions (LMs) in Canisters.

2.2. Mission Control Console (MCC) for mission planning and execution.

2.3. Ground Control Console (GCC) for launching of LMs.

2.4. Ground Data Terminal (GDT) for data link using RF and SATCOM.

2.5. Launchers.

2.6. Recording unit.

2.7. Embedded simulator (for operator training).

2.8. Capability of integration with Combat Management System.

3. **Operational Capability**. The LM (MR) system shall be capable of the following: -

3.1.	Maximum Range	-	≥ 1000 km.
3.2.	Loitering Time	-	≥ 9 hr.
3.3.	Loitering Speed	-	≥ 75 kn.
3.4.	Dive/ Attack Speed	-	≥ 200 kn.
3.5.	Ceiling Height	-	15000 ft.
3.6.	CEP	-	< 1 m.
3.7.	Data Link	-	RF and SATCOM Data Link.
3.8.	Dimensions of LM	-	≤ 2.5m (Length) x 3m (Wingspan)
3.9.	RCS	-	≤ 1 Sq m

4. **Flight Navigation**. The LM shall encompass the following capabilities for undertaking navigation during loitering: -

4.1. Navigation controlled by the operator through RF and/or SATCOM data link.

4.2. Auto navigation between multiple pre-decided coordinates that are pre-fed as mission planning parameter.

4.3. Auto return towards last known position of GDT, in the eventuality of a data link loss, until the data link is re-established.

4.4. Auto navigate to pre-decided termination point if the data link is not established, in the eventuality of data link loss.

5. **Mission Control Console**. The LM (MR) shall have a Mission Control Console (MCC) based on open architecture for modularity and scalability. Data from all sensors of LM (MR) system and ship borne sensors shall be integrated and fuzed at the MCC. The MCC shall enable the operator to undertake planning and execution of operational missions and monitor live status of LMs in air. The MCC shall enable

a single operator to manage and undertake operations for upto 10 LMs simultaneously.

6. **Ground Control Console**. The LM (MR) shall have a Ground Control Console (GCC) for launching of LMs. The GCC shall be capable of undertaking a fully automatic launch, post receiving the firing command. It shall provide dynamic display of the launch process with possibility of operator intervention.

7. **Ground Data Terminal**. The LM (MR) shall have a Ground Data Terminal (GDT) for communication between the MCC and LMs in air. The GDT shall enable the operator to send command, and, receive data and video from the LM.

8. **Control Transfer**. The LM (MR) system shall be capable of undertaking control transfer of LMs in air between multiple ships and vehicles installed with LM (MR) MCC and GDT. Accordingly, the ships/ vehicles fitted with MCC and GDT only (i.e. without GCC/ Launcher) shall be capable of taking over control and operating the LM launched from other ship/ vehicle.

9. **Seeker**. The LM shall encompass an EO/IR seeker as main payload for navigation, surveillance, detection and attacking the opportune targets at sea and on land. The EO/IR seeker shall be capable of operating during day and night and encompass the following: -

9.1. Forward Looking Infra Red (FLIR) with MWIR capability.

9.2. Day camera with SWIR capability.

9.3. Three axis stabilisation for unhindered tracking.

9.4. Support remote control operation using the RF and SATCOM data link.

9.5. Automatic tracking.

10. **Warhead**. The warhead of the LM (MR) shall be installed in the forward section.

11. **Canister**. The LM shall be stored onboard the ships in a LM canister. The canister is envisaged to be maintenance free except during maintenance/defect rectification. The LM canister shall serve the following functions: -

11.1. Marine environmental protection.

11.2. Transportation and handling of LM.

11.3. LM storage onboard the ship prior launch when operationally deployed).

11.4. Facilitate launch of the LM.

12. **Propulsion**. The LM (MR) shall have a suitable propulsion system to enable operation upto maximum range and time as mentioned at Para 3 above. Further, the LM shall also have a booster to enable launch from the canister. The LM shall have the capability of fueling prior loading in canister, to enable stowage in de-fueled condition.

13. **Power Supply System**. The LM shall have a suitable onboard power supply system to enable operation of all onboard sensors throughout the flight duration.

14. **Environmental Conditions**. The LM (MR) along with its associated subsystems shall be able to undertake all operations without degradation under the following environmental conditions: -

14.1. Relative humidity - 95% at 40ºC.

14.2. Wind speed - upto 50 knots.

14.3. Temperature - - 20ºC to + 60ºC

15. **Shipboard Interfaces**. The LM (MR) is to be interfaced with ship's sensors through the Ship's Data Network (SDN), which should include, but not limited to the following: -

15.1. Combat Management System (CMS).

15.2. Ships House Hold data {GNSS (NAVIC capable), Gyro, Anemometer, Time Reference Server (TRS), etc}.

15.3. ESM systems.

15.4. Surveillance and early warning radars.

15.5. COTS radars.

15.6. Ship's Weapon Interlock and Safety System (SWISS).

16. **Integration of Sub-systems**. The sub-systems of LM (MR), as mentioned at Para 2 above, shall be capable of being physically displaced onboard *IN* ships and be interfaced with the MCC (located in appropriate internal compartment).

17. **Emergency Jettison**. The LM (MR) shall have the provision of undertaking emergency jettison of LMs from the launcher, to facilitate immediate discard in case of any emergency situation. Provision for emergency/ backup power supply to undertake the emergency jettison shall be factored.

18. **Recording Unit**. The LM (MR) system shall be capable of recording and logging all operational activities using an internal Recording Unit (RU) connected to the system network.

19. **Design**. The LM (MR) system shall be of modular design and open architecture including plug and play feature to interface other user defined equipment/hardware.

20. **Power Supply.** The LM (MR) system shall be capable of functioning on power supply of 380 to 415V which shall be provided from ship's power source.

21. **EMI/EMC Hardening**. The LM (MR) system shall be capable of operating in dense EM environment onboard ships and electromagnetically compatible with all the equipment of the ship.

22. **Data Link Antenna Alignment.** The data link antenna of LM (MR) shall not require any alignment after its shipboard installation. The alignment procedures and facilities shall be simple, documented and provided.

23. **Service Life**. All critical components of the LM (MR) system shall have a service life of at least 10 years. This life should be extendable upto further 10 years.

24. **System Redundancy**. The LM (MR) system shall have redundancies to avoid single point failure.

25. **Environmental Stress Screening Test**.

25.1. **Indigenous Equipment**. Environmental Stress Screening Test (ESS) for indigenous equipment shall be carried out as per DQAN guidelines promulgated vide letter no 66301/ Policy – 07/DQA(N)/QA-07 dated 14 Jun

13. Endurance test shall be carried out as per DQAN guidelines 66301/Policy – 10/DQAN/QA-10 dated 14 Jun 13.

25.2. **Imported Equipment**. All imported electrical, electronic equipment and modules shall undergo ESS test on 100% items as per MIL HDBK2164A/ MIL HDBK 344A.

26. **Standards and Specifications**. The under mentioned standards will be applicable. Test certificates of compliance with the standards along with the necessary test reports from authorised test agencies are to be provided.

Ser	Standard a.	Description b.
1	MIL HDBK 454 B	General Guidelines for Electronic Equipment
2	MIL STD 242 G	Electronic Equipment Parts Selected
3	MIL STD 202 G	Test Methods for Electronics and Electrical Component Parts
4	MIL STD 461 G	Requirements for control of EMI/ EMC
5	MIL STD 1686C	Electrostatic Discharge Control Programme
6	MIL STD 2164 A	Environmental Stress Screening
7	MIL STD 810 H/ JSS 55555:2012/ JSG 0102	Environmental Tests
8	MIL DTL 23659 F	Initiators, electric, general design & specifications
9	MIL STD 1751 A	Safety and performance tests for qualification of Explosives (HE, Propellants and pyrotechnics)
10	MIL STD 1901 A	Safety Criteria for Munition rocket and missile motor ignition system design
11	IEEE 12207: 2017	Software Standard, Configuration Management & Documentation
12	JSS 0251: 2002 (Rev)	Documentation
13	MIL Q 9858 A	Quality Assurance Program Requirements
14	MIL STD 470 B	Maintainability Program Requirements (for systems and equipment)
15	MIL STD 756 B	Reliability Modelling Prediction
16	MIL STD 882 E	Standard Practice for System Safety
17	NSS Grade II/ MIL STD 901D	Shock requirements

Ser	Standard a.	Description b.
18	JS55555/ equivalent	Environmental Standard
19	MIL-HDBK-217F	Reliability predictions of electronic system

27. **Documentation.** The documentation of LM (MR) system shall be IETM Level 5 and include the following: -

27.1. **Technical Documents**.

27.1.1. Technical description of complete system.

27.1.2. Operation Instructions.

27.1.3. Interface Control Documents (ICDs).

27.1.4. Function diagrams, block diagrams, schematic circuit diagrams for all electronic models and schematic drawings for mechanical parts.

27.1.5. Maintenance Manuals.

27.1.6. Software documentation providing details of software loading and reloading methods and diagnosis of software faults.

27.1.7. Training videos with voice overlay.

27.2. **Other Documents**.

27.2.1. Installation procedures.

27.2.2. Alignments, adjustment and testing of units and assemblies of system.

27.2.3. System connection diagram.

27.2.4. Power Cables, Signal Cables, Cooling Hoses etc.

28. **Tools, Accessories and Test Equipment**. The designer/ supplier shall provide complete sets of tools, test jigs and equipment for carrying out the testing/repairs of LM (MR) system and its associated equipment.

29. **Obsolescence Management**. The designer/ supplier shall make an obsolescence management plan which outlines the aspects of handling components, technologies or sub-systems becoming obsolete over time. The plan must also include the approach for sourcing replacement spare parts and updating software, so as to ensure that the system remains operational and current despite the changes in technology.

Appendix B to RFI
(Refer Para 7)

REQUEST FOR INFORMATION: PROCEDURE FOR RESPONSE

Request for Information for Procurement of LM (MR)

1. The Ministry of Defence, Government of India, intends to induct LM (MR) for addressing adversary targets at sea and on land. The OEMs/ Authorised Vendors are requested to forward information on the product which they can offer. The parameters/ broad specifications of the item are mentioned in the ORs at ***Appendix A*** and questionnaire at ***Appendix D***. In addition the vendors are required to furnish details as per Proforma at ***Appendix C*** of this RFI.

2. Apart from the information as per the Appendices, the vendors may also forward technical details/ product brochures/ literature etc pertaining to the items in question.

3. The required information/ details may please be forwarded at the following address within ***eight weeks from the date of posting of this RFI on MoD website***:-

3.1. **User/ Procurement/ Planning Directorate.**

Directorate of Staff Requirements
Room No 206, D Block
Defence Offices Complex, Africa Avenue
Naval Headquarters
Ministry of Defence (Navy)
New Delhi 110023
Fax: 011-26771320
Email ID: dsr@navy.gov.in

3.2. **ADG Acquisition Technical.**

O/o Technical Manager (M & S)
Room No 5, D-2 Wing
Ground Floor, Sena Bhawan
Rajaji Marg
New Delhi 110011
Tel: 011-23011540,
Fax: 011-23017684

Appendix C to RFI
(Refer Para 7.1)

VENDOR INFORMATION PROFORMA

1. **Name of the Vendor/Company/Firm.**

_____

_____

(Company profile including Share Holding pattern, in brief, to be attached)

2. **Type (Tick the relevant category).**

Original Equipment Manufacturer (OEM) Yes/No

Authorised Vendor of foreign Firm Yes/No (attach details, if Yes) others (give specific details)

_____

_____

3. **Contact Details.**

Postal Address. _____
City. _____ State. _____
Pin Code. _____Tele. _____
Fax. _____URL/Web Site. _____
Email. _____

4. **Local/ Branch/ Liaison Office/Agent (if any) at New Delhi.**

Name & Address. _____
Pin Code. _____Tel. _____ Fax. _____
Email. _____

5. **Financial Details.**

5.1. Category of Industry (Large/Medium/Small-scale). _____

5.2. Earlier contracts with Indian Ministry of Defence/ Government agencies

Contract No.	Equipment	Qty	Cost

6. **Certification by Quality Assurance Organisation.**

Name of Agency	Certification	Applicable from (Date &Year)	Valid till (Date &Year)

7. **Details of Registration.**

Agency	Registration No	Validity (Date)	Equipment
GeM			
DGQA/DGAQA/DGNAI			
OFB			
DRDO			
Any other Government Agency			

8. **Membership of FICCI/ ASSOCHAM/ CII or other Industrial Associations.**

Name of Organisation **Membership Number**

_____ _____

9. **Equipment/Product Profile (to be submitted for each product separately).**

9.1. Name of Product. _____
(IDDM Capability be indicated against the product)

9.2. Description (attach technical literature). _____

9.3. Whether OEM or Integrator. _____

9.4. Name and address of Foreign collaborator (if any). _____

9.5. Industrial License Number. _____

9.6. Indigenous component of the product (in percentage). _____

9.6.1. Overall IC (in percentage). _____

9.6.2. IC for material/ components/ software manufactured in India (in percentage). _____

9.7. Status (in service/design& development stage). _____

9.8. Production capacity per annum. _____

9.9. Countries/agencies where equipment supplied earlier (give details of quantity supplied). _____

9.10. Estimated price of the equipment (with detailed breakdown). _____

10. Indigenously produce subsystems, Line Repair Units, software and critical spares of the product. _____

11. Devices / Line Repair Units for which Input / Output Protocols are indigenously available for enabling replacement by indigenous equivalents or interfacing with equipment of own choice. _____

12. Capability for carrying out Comprehensive Maintenance, Repair and Overhaul, calibration and obsolescence management of the equipment / platform / system along with associated jigs, fixtures and test setups, during the designed service life of the equipment within India. _____

13. Alternatives for meeting the objectives of the equipment set forth in the RFI. _____

14. Any other relevant information. _____

15. **Declaration**.

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

15.2. It is certified that in the past _____ (name of the firm) has never been banned/ debarred for doing business dealing with MoD/ GoI/ any other Government Organisation and that there is no inquiry going on by CBI/ ED/ any other Government agency against the firm.

(Authorised Signatory)

Appendix D to RFI
(Refer Para 7.1.)

REQUEST FOR INFORMATION: QUESTIONNAIRE

Ser	Specifications/ Parameters a.	Reply b.
1.	Do you comply with complete Operational Requirements (ORs) mentioned in Part I of RFI? Please provide feature wise compliance in a tabular format? Also specify the maximum capability of the system being offered	
2.	Any new specifications/ features/ technology development not included in ORs and are being offered by the OEM?	
3.	Will you provide complete support for software and hardware issues?	
4.	Will you provide the LM (MR) system under Buy (Indian-IDDM) (Indigenous Design & IC content ≥ 50 %)/ Buy (Indian) categorisation (IC content ≥ 60%) *iaw* DAP 20?	
5.	What will be the maximum IC % offered for LM (MR)	
6.	Have you supplied LM (MR) to Indian/ Foreign Armed Forces? Its performance and difference vis-à-vis ORs in Part I?	
7.	What is production capacity ? (no. of system manufactured per annum)	
8.	What is the status of LM (MR) Technology Readiness Level (TRL) with your firm?	
9.	Is the LM (MR) capable of operations in GNSS denied/ spoofed environment?	
10.	Specify the Anti-Jamming/Anti Jamming Capabilities available with your system ?	
11.	What are the dimensions of the LM (with canister), LM Launcher, Mission Control Console (MCC), Ground Control Console (GCC) and Ground Data Terminal (GDT)?	
12.	Please provide details of area (foot print of launchers/ launch frame) required for undertaking launch of LM (MR) onboard ship?	
13.	What is the effect of weather conditions experienced at sea on the upper deck fittings pertaining to LM (MR) onboard *IN* Ships.	

Ser	Specifications/ Parameters a.	Reply b.
14.	What will be type of launch mechanism of LM (MR)?	
15.	What are the various modes of operations of MCC of LM (MR) ?	
16.	Give details of component configuration of equipment?	
17.	For ship based operations: - 17.1. Upto what sea state can the LM (MR) system be operated for launching of LM, without operational degradation? 17.2. Upto what sea state can the LM (MR) systems maintain its structural integrity without damage (survivability)?	
18.	Specify capability of EO/IR seeker ?	
19.	During the attack/dive phase what will be the angle of attack ?	
20.	Specification of the warhead (wt, NEQ etc) ?	
21.	Does LM (MR) have swarming capability ?	
22.	Elaborate on the Swarming Capability ? (No of LM that can be controlled, Methodology of control, Payload variations etc)	
23.	What is the equipment readiness time from powering up till launch?	
24.	What is the specification of equipment to ensure protection from weather/ marine environment?	
25.	Details of COTs, MOTs and MIL STD component be provided?	
26.	Utilisation of Indigenous Military Material and Indigenous Software, indicating plan for material sourcing *iaw* Para 11 and 13 of Ch II of DAP 20 be indicated.	
27.	Details regarding repairable LRUs/ Shop Replaceable Unit (SRUs)/ Modules/ Blocks which shall be repaired upto component level at the repair facility offered for the system indicating all critical and high population module.	
28.	Cost estimate including taxes and duties is to be provided.	
29.	Mode of Acceptance Trials (Physical trials/ documentation/ certification/simulation) and trial methodology as per parameters in ORs, including parameters for product evaluation is to be provided.	
30.	Vendor information and relevant documents *wrt* vendor being MSME and/or startup to be provided *iaw* Para 23, Chapter II of DAP 20.	

Ser	Specifications/ Parameters a.	Reply b.
31.	Inputs on alternatives to meet the same/ better operational requirements is to be provided?	
32.	Any dependency on Foreign OEM for critical component/ technology along with long term plan for indigenisation of such foreign components/ technology?	
33.	Inputs on compliance and/or conformity to various industrial and military standards as applicable as per ORs, related to operations and safety be provided.	
34.	Undertaking is to be provided stating that "The vendors/ firms (name) have never been banned/ debarred from doing business dealing with MoD /GoI/or any other Govt organisation.	
35.	Confirmation is to be provided *wrt* submission of PCIP, EMD and all BGs at the rate as promulgated by MoD at the time of tender submission.	
36.	How will the vendor enhance indigenisation and setup dedicated manufacturing line, including design, integration and manufacturing processes in India, in case of a joint venture with foreign OEM?	
37.	What is the depth of ToT envisaged?	

38. **After Sale Support**. The following details will be provided by the vendor:-

38.1. Repair methodology being proposed.

38.2. What kind of Engineering Support Package (ESP) and life time support can be provided along with financial implications?

38.3. How are similar kind of systems being maintained by the vendor?

38.4. Will the requisite spares, SMT/ STE be provide by the vendor for carrying out component level repairs?

38.5. What would be the training mechanism for operators and maintainers?

38.6. Proposal for CMC/ RRC with cost implications.

39. **Product Support and Upgradability**. The vendor shall indicate and give details of the information sought listed below:-

39.1. All major repairs and overhaul facilities for major assemblies and component level owned by the vendor India.

39.2. Base overhaul facilities and availability of infrastructure in India.

39.3. Management of repairs and spares post warranty.

39.4. Upgrade for software (as applicable).

39.5. Upgradability of hardware for enhanced performance features or due to modifications required to obviate recurring defects.

39.6. Vendor shall indicate conformity to submission of Manufacturers Recommended List of Spares (MRLS), Illustrated Spare Part List and Technical Manuals including for STEs.

39.7. Vendor shall indicate compliance to Tangible Obsolescence Management Plan and plane for upward compatibility with latest modules.

39.8. Vendor shall provide details of vendors/ sub-vendors and readiness/ lead time towards provisioning of spares.

40. **Manufacturing and Production Aspects**.

40.1. Vendor shall provide details of all R&D and manufacturing infrastructure.

40.2. **Indigenisation**. Vendor shall give out ability and willingness to supply the product to meet the requirements of **Buy (Indian-IDDM) and/ or Buy (Indian)** to meet the aim of indigenisation as per the provisions and spirit of DAP 2020.

40.3. **Production Capacity**. Vendor will give out his current and planned annual production capacity and proposed delivery schedule of the equipment. The timeline required to deliver required quantity of the equipment for trials and post contract, time required to deliver the equipment. Vendor shall obtain necessary export/ import clearances in due time to ensure expeditious production

40.4. Vendor should indicate willingness to participate in trials as per DAP 2020 in India on NCNC basis.

40.5. Vendor should give details on use of indigenous military material and software indicating plan for sourcing material and cost implications vis-à-vis foreign sourcing of material.

41. **Test Standards**. Inputs on test standards adopted for similar equipment type be indicated. Equipment procured by Indian Navy has to undergo environmental test and other relevant checks by nominated DQA (N) as per MIL STD requirements mentioned in ORs.

42. **Certification**. Parameters for which certifications can be made applicable and provided in lieu of trials evaluation. Details of parameters of the equipment which can be certified from NABL accredited labs will be indicated.

43. **Financial Aspects**. Vendor shall intimate the cost of LM (MR) system as mentioned in Part I of RFI, inclusive of taxes and duties. Details of cost should also include product support package, training and additional details as deemed appropriate.

44. **Compliance with Provisions of DAP 20**. The Vendor should indicate compliance with all provisions of DAP-20. If not, which Para/ Clause of DAP-20 not agreed with reasons be indicated.

45. Vendor should also indicate willingness for option clause as per DAP 2020.

46. **Training**. Vendor shall indicate ability and willingness to offer following: -

46.1. Training aggregate for conduct of training, such as but not limited to technical literature, slides, blow up diagrams, training work modules, brochures and Computer Based Training package.

46.2. Vendor shall indicate the facilities available at Vendor's premises to conduct training. Vendor should also indicate training for user, maintainers, and QA personnel.

46.3. Recommended training period for users, maintainers and QA personnel.

46.4. Availability and cost of simulators.

46.5. Availability of willingness of the vendor to provide hard and soft copies of documentation *iaw* ORs.

47. If vendor is MSME and/ or Startup, relevant information and supporting documents are to be provided.

48. Vendors to specify the protocols/ security features being followed to maintain cyber security of the transmitter. Please indicate acceptability and implementation of provisions with respect to security/ malicious codes as per DAP-20.

49. **Undertaking on Debarment**. Vendor should provide an undertaking that it was never banned/ debarred from doing business dealing with MoD/ GoI/ or any other Govt organization.

50. Indicate if same or similar system has been supplied to any other customer along with details of deviation in capabilities and cost, if any.

51. **Miscellaneous**.

51.1. Extract of relevant technology perspective, and capability roadmap to be included.

51.2. Any futuristic plans for modification and or modernization plans for the equipment being offered.

51.3. Vendor may consider RFI as advance information to obtain requisite government clearances.

Appendix E to RFI
(Refer Para 10)

GUIDELINES FOR FRAMING CRITERIA FOR VENDOR SELECTION/ PREQUALIFICATION IN 'BUY (INDIAN-IDDM)' 'BUY (INDIAN)' AND 'BUY & MAKE (INDIAN)' CASES

1. The guidelines prescribed for short-listing/ pre-qualification of Indian vendors are enumerated in the succeeding paragraphs. **Para 2** below deals with the parameters that may be considered for short-listing of vendors, whereas **Para 3** amplifies the process for applying selected parameters to the process of vendor short listing.

2. **Parameters**.

2.1. **General Parameters**.

2.1.1. Applicant Entity should be an Indian Vendor as defined at Paragraph 20 of Chapter 1 of DAP 2020.

2.1.2. Business dealing with applicant Entity or any of its allied entities should not have been suspended or banned, by MoD/ SHQ or any Government Department or organization(as defined in Guidelines for Penalties in Business Dealings with Entities issued vide Ministry of Defence, D (Vigilance) MoD ID No 31013/1/2006-D (Vig) Vol II dated 21 Nov 2016). None of the Promoters and Directors of applicant entity should be a wilful defaulter.

2.1.3. "Entities" will include companies, with whom the Ministry of Defence has entered into, or intends to enter into, or could enter into contracts or agreements.

2.1.4. "Applicant entity" may be a company, subsidiary, an associate company (as defined in the Companies Act, 2013) a consortium or a Joint Venture (JV).

2.2. **Technical Parameters**.

2.2.1. Vendor should be a manufacturing entity or a system integrator of defence equipment and not a trading company, except in case where the OEM participates only through its authorized Vendors.

2.2.2. Minimum two Years' experience in broad areas like manufacturing/ electronics etc as applicable in the instant procurement case. If not, then cumulative experience of at least three years in above areas, resulting in gaining of competence for manufacturing the proposed product.(In case the SHQ feels that for a particular equipment a lesser experience could be accepted, then the same should be got approved by the competent authority before including the same in the RFP).

2.2.3. Where product involves integration, previous experience **of not less** than one year/one project in integration of systems/equipment shall be required.

2.2.4. **ICT Cases**.

2.2.4.1. Certification to be included if linked to scope of work – Gartner Quadrant/ ISO 9001/ CMMi3 or more (specifying development/ service/ acquisition models)/ ISO 27001. For information security and large value projects, preferably CMMi5 may be specified.

2.2.4.2. Compliance with IEEE/ ITU standards depending on nature/ type of project or solution required.

2.3. **Financial Parameters**.

2.3.1. **Average Annual Turnover**. Minimum average annual turnover for last three financial years, ending 31st March of the previous financial year, should not be less than 30% of estimated cost of the Buy (Indian-IDDM) and Buy (Indian) project.

2.3.2. **Net Worth**. Net worth of entities, ending 31st March of the previous financial year, should not be less than 5% of the estimated cost of the Buy (Indian-IDDM) and Buy (Indian) project.

2.3.3. **Insolvency**. The entity should not be under insolvency resolution as per Indian Bankruptcy Code at any stage of procurement process from the issuing of RFP to the signing of contract.

2.3.4. **Credit Rating (Desirable Financial Parameter)**. Long term credit rating equivalent to CRISIL rating on Corporate Credit Scale as

CCR-BBB or better, and **SME-04 or better for SMEs** issued by credit rating agencies recognized by SEBI. Credit rating should be as on 31st March of the previous financial year.

{**Note 1**. All the above financial parameters, except Para 2.3.3. above (insolvency) will not be applicable for capital acquisition cases where estimated cost is Rs. 150 Cr and below. However, net worth of entities should not be negative. For recognized startups/ registered MSMEs, refer 4 and 5 of this Appendix.

Note 2. The turnover and net worth of the vendor shall be rounded off to the nearest lower ten/ hundred crores so as to keep the estimated cost of the procurement confidential}.

2.4. **Other Parameters**.

2.4.1. **Industrial License (IL)**. Vendors should be either holding a valid defence industrial license or should have applied for the same before responding to RFP. In any case the vendor must confirm holding of IL before commencement of FET. (Items requiring IL will be as per DIPP Press Note 3 of 2014 as amended from time to time).

2.4.2. **Registration**. Registered for a minimum of two years (one year for SMEs). Minimum number of years not applicable for JVs constituted specifically for a project.

2.4.3. **Maintenance, Repair & Overhaul**. Vendors should be capable of carrying out comprehensive Maintenance, Repair & Overhaul, calibration and obsolescence management of the equipment/ platform/ system indigenously, along with associated jigs, fixtures and test setups, during the designed service life of the equipment.

2.4.4. **Input / Output Protocols**. Vendors should be able to provide indigenously, the Input / Output Protocols of devices / Line Repair Units envisaged to be replaced by indigenous equivalents or interfaced with equipment of own choice.

3. **Stipulations for Applying Parameters**.

3.1. Areas like manufacturing/electronics/explosive etc. referred to at Para 2.2.2 above should be defined in each case of procurement.

3.2. In case the Applicant Entity is unable to meet the Financial Parameters by itself, it may rely on its **Holding Company** (as defined in the Companies Act, 2013 and amendments thereof) ("Companies Act") for fulfilment of the Financial Parameters, in which case reliance must be placed on the Holding Company towards fulfilment of **ALL** the Financial Parameters.

3.3. In case the Applicant Entity is unable to meet one or more of the Technical parameters by itself, it may rely on a Group Company (ies) for fulfilment of the Technical parameters. A Group Company in relation to the Applicant Entity may be:-

3.3.1. A Company of which the Applicant Entity it is an Associate Company such company should have ownership, directly or indirectly, of at least 26% of the voting shares of the Applicant Entity.

3.3.2. A Company which is an Associate Company of the Applicant Entity. The Applicant Entity should have ownership directly or indirectly, of at least 26% of the voting shares of such Associate Company.

3.3.3. A Company with whom the Applicant Entity is commonly owned, directly or indirectly, for at least 26% of the voting shares by another company. For example: An Applicant Company A is an Associate Company of Company B, in which B holds at least 26%. Further, C is also an Associate Company of B, in which B holds at least 26%. In this case the Applicant Company may use the credentials of C as well.

3.3.4. The Holding Company and Subsidiary companies (as defined under the Companies Act) of the Applicant Entity.

3.4. The Applicant entity may be a single entity or a group of entities (the "consortium") coming together to implement the project. In such case:-

3.4.1. The credentials of only those members of their related entities may counted, who have at least 26% equity stake in the Consortium.

3.4.2. Each Consortium should have a designated **Lead Member.**

3.4.3. For Technical Parameters, **any of the consortium members of their Group Companies** may meet the criteria.

3.4.4. For Financial Parameters. The Turnover and Net Worth of the Consortium Member shall be reckoned **proportionate to Consortium Member's equity stake** in the Consortium, and each Consortium member should meet the other criteria pertaining to Insolvency and Credit Rating. In case the Consortium Member relies on its Holding Company for any one of the above-mentioned Financial Parameters, then reliance must be placed on the Holding Company for meeting a**ll** the **financial Parameters.**

3.5. Vendors should provide all necessary self-authenticated document in support of their achievement of criteria. Such documentation should inter-alia include:-

3.5.1. Details of projects/supply orders successfully executed in the last two years.

3.5.2. Annual reports for three years of applicant entity, parent and associate companies, consortium and JV partners.

3.5.3. Details of shareholders, promoters, associated, allied and JV companies.

3.5.4. Details of vigilance action, *viz* ongoing investigation and suspension/ debarment/ blacklisting actions against the applicant entity or any of its allied entities, parent company or consortium and JV partners, if any by any Department/agency of Central Government.

3.5.5. A Certificate from CA/ CS indicating the financial parameters for the last three years as per Para 2.3. above.

(**Note**. If a vendor is already a supplier to MoD and/ or has already provided the above documents in such cases, is should be necessary for the vendor to re-submit only such documents as is necessary to update the above.)

3.6. Any vendor furnishing false information will be liable for action as per existing guidelines.

4. **Start-Ups/ MSMEs**. The Start-Ups would be defined as per G.S.R 127 (E) dated 19 Feb 19 (as amended time to time). For procurement cases where the estimated cost is not exceeding Rs.100 Cr/ years based on delivery schedule at the time of seeking AoN or Rs.150 Cr, whichever is higher, to encourage the Start-Ups/ MSMEs and build industrial ecosystem, the recognized Start-Ups/ MSMEs in the relevant fields may be considered for issue of RFP without any stipulation of financial parameters, except Para 2.3.3. (insolvency) and with general and technical parameters to be decided on case to case basis.

(Note. The Start-Ups are not to be confused with New Entrant who may be High/ Mid-sized groups having financial support and manufacturing experiences and now venturing into Defence Production).

5. The criteria for vendor selection shall be clearly stipulated in RFPs so as to maintain transparency. Care shall be taken to ensure that the stipulated criteria are not open to subjectivity and arbitrary interpretation.