

**INVITATION FOR EXPRESSION OF INTEREST (EOI) FOR
INDIGENOUS DEVELOPMENT OF FOLDABLE FIBREGLASS MAT
UNDER MAKE II PROCEDURE OF DPP 2016**

Reference:- Defence Procurement Procedure 2016 (DPP - 2016)

Appendices:-

- A** Preliminary Service Qualitative Requirements for Indigenous FFM.
- B** Standards/Specifications.
- C** Format for Eoi Response.
- D** Commercial and Technical Evaluation Criteria.
- E** Confidentiality Agreement
- F** Correctness Certificate.

Layout

1. The EoI comprises the following parts:-
 - (a) Part I : General Information
 - (b) Part II : Scope of Project
 - (c) Part III: Evaluation Criteria
 - (d) Part IV: Procedure for submission of response to the EoI
 - (e) Part V: Miscellaneous
2. The nodal officer for this project for all queries/clarifications/coordination will be Chairman, Project Facilitation Team, Indigenous FFM. Address and contact details of the nodal officer are given at Para 25 of the EoI.

PART I: GENERAL INFORMATION

3. Foldable Fiber Mats (FFM) is a rigid light weight composite material reinforced with specially developed Fibreglass polyester resin weaved and cut to shape. The mats can be used as Foreign Object Damage (FOD) covers over filled & rammed craters to make the damaged runway operational within the shortest possible timeframe. The aim of Airfield Damage Repair (ADR) with FFM is to recover Minimum Operational Surface (MOS) in shortest time frame for recommencement of Air Operations.

Objective

4. The objective of this EoI is to seek responses from eligible Indian Entity (criteria defined in Appendix A to Chapter III A of DPP 2016) for the development of prototypes of indigenous Foldable Fibreglass Mat for rapid runway repairs.

PART II: SCOPE OF THE PROJECT

5. **Phases.** The project involves following two phases:-
 - (a) **Prototype Development Phase.** This phase involves indigenous Design and Development of prototype for FFM. This phase will end upon approval of report of User Trial Readiness Review (UTRR) by Project Facilitation Team (PFT).
 - (b) **Procurement Phase.** This phase will commence with 'Solicitation of Commercial Offers' as per Chap-III A of DPP 2016.

6. **Categorisation.**

(a) **Prototype Development Phase.** 'Make-II (Industry Funded)' Sub Category of Make Category of DPP-2016.

(b) **Procurement Phase.** 'Buy (Indian-IDDM)' in accordance with Para 5 of Chapter IIIA of DPP-2016 from qualifying DA with minimum 40% IC.

7. **Quantities.**

(a) **Prototype Development.** Two Sets of FFM Mat Assembly (along with associated accessories & equipment).

(b) **Procurement.** Requirement of 301 sets of FFM Mat Assembly over five years (245 sets for IAF, 28 sets for ANC and 28 Sets for IN) (along with associated accessories/ equipment and documentation).

8. **Make-II Procedure.** Detailed guidelines on Make II Procedure (Chapter III A of DPP 2016) may be downloaded from MoD website for reference.

9. **Preliminary Service Qualitative Requirements (PSQR).** The PSQRs for Design and Development of Indigenous Foldable Fibreglass Mat (FFM) is attached as Appendix A. The Essential Requirements at Part II of the PSQRs must be met prior to conversion of PSQR to ASQR before User Trials.

Timelines & Milestones

10. **Stages.** Stages of the development and procurement process are as given at Para 9 of the Make-II Procedure of Chapter III A of DPP 2016.

11. **Milestones.** Major activities are as given below:-

SI No	Activity	Remarks	Timelines
(a)	Issue of EoI	By PFT	T ₀
(b)	EoI Response Submission	By EoI Respondents (Indian Vendors)	T ₀ + 06 weeks
(c)	EoI Response evaluation	By PFT	T ₀ + 11 Weeks
(d)	Issue of Project Sanction Order (PSO) for design & development of Prototype	To selected DAs	T ₀ + 13 Weeks
(e)	Design & development of prototype	By DAs	64 Weeks
(f)	User Trial Readiness Review (UTRR)	-	04 Weeks
(g)	Conversion of PSQRs to ASQRs	-	08 Weeks

(h)	Solicitation of Commercial Offer	-	04 Weeks
(j)	User Trials	-	08 Weeks
(k)	Staff Evaluation	-	04 Weeks
(l)	Cost Negotiation Committee (CNC) & Contract	-	08 Weeks

Development of Prototype and Trials

12. The indigenous FFM should be developed as per PSQRs at Appendix A. Any clarification related to functional or operational aspects of development as sought by the DAs will be provided by the Project Facilitation Team (PFT).

13. After the prototype has been developed as per PSQRs given at Appendix A, the PFT would carry out User Trial Readiness Review of the prototype(s). If the prototype is assessed as ready for evaluation, the PSQRs would be converted to ASQRs, before conduct of User Trials. User Trials will be carried out to validate equipment performance against the ASQRs. Necessary technical literature pertaining to the design & material and verification of IC will be provided by the DAs for the User Trial Readiness Review and conduct of User Trials on the prototype.

14. DAs may be required to produce one or more of the following documents for vetting and approval by IAF, QA agencies and Design Certification Agency as per applicable Standards / Specifications. Some of the reference standards are attached as Appendix B.

- (a) Environmental Qualification Test Procedure (EQTP).
- (b) Detailed Specification Sheet.
- (c) Detailed drawings.
- (d) Manufacturing Process Document.
- (e) Quality Assurance Plans (QAP).
- (f) Acceptance Test Procedure (ATP).
- (g) User manual/Brochure containing the following:-
 - (i) Detailed drawings, specifications, standards & capabilities of Mat assembly, tools & equipment.
 - (ii) Detailed guidelines/procedure for filling of craters & deployment of mat assembly like transportation unpacking, unfolding, align, joining, anchoring, retrieval, repacking & storage of mat assembly.
 - (iii) Detailed procedure for fixing/retrieval of FFMs.

- (iv) Training documents.

15. Design & Development (including developmental testing/trials) of the prototype is to be undertaken by the Developmental Agencies (DAs). In case any IAF facility is required during trials, the vendor may provide a list of such facilities in his response (Para 24 of Appendix C refers).

Solicitation of Commercial Offers

16. A commercial Request for Proposal (RFP) for 'Buy (Indian-IDDM)' phase would be issued to EoI Respondent(s) prior to commencement of User Trials to solicit their commercial offers and additional technical information/ documentation, as may be necessary.

Deliverables

17. The project is envisaged to have the following deliverables. The details of procurement phase will be further amplified in the Commercial Request for Proposal (RFP):-

- (a) **Prototype Development Phase.** Two Sets of FFM Mat Assembly (along with associated accessories & equipment).
- (b) **Procurement Phase.**
- (i) A total of 301 sets of FFM Mat Assembly along with associated accessories/ equipments.
- (ii) Tools, Testers and Ground Equipment (TTGE), requisite training, Technical literature including user handbook, operations & technical documents and manuals.

Intellectual Property Rights (IPRs)

18. Policy on IPRs is mentioned at Para 42 of the Chapter III A of DPP-2016 for Make-II Procedure.

PART III : EVALUATION CRITERIA

Commercial and Technical Evaluation Criteria

19. **Eligibility.** Indian Entity satisfying criteria given at Appendix A of Chap-III A to DPP 2016 is considered as an eligible "Indian Entity" for the project.

20. EoI respondents will be evaluated for compliance to commercial and technical criteria as per Appendix D.

Indigenous Content (IC)

21. Indigenous Content of minimum 40% is to be ensured at prototype stage and during procurement stage. After successful development of prototype(s), further

procurement will be as per the 'Buy (Indian-IDD)' procedure in accordance with DPP-2016. IC content will be assessed as per guidelines at Appendix A to Chapter I of DPP 2016. All relevant deliveries made under contract shall be accompanied by a certificate of IC issued by the Chief Financial Officer (CFO) of the prime/main contractor. 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.

22. **Foreign Collaboration.** If the EoI Respondent is collaborating/plans to collaborate with a foreign technology provider, the nature of such collaboration and the technology areas being transferred must be stated in the response (please refer Paras 13 & 23 of Appendix C).

PART IV: PROCEDURE FOR SUBMISSION OF RESPONSE TO THE EoI

23. **Guidelines for Submitting EoI Responses.**

(a) The responses should be submitted as per format placed at Appendix C. Should a vendor need to mention any other information, a separate column/row/additional pages may be added.

(b) All responses as per Appendices should be submitted in a single file/folder. Supporting documents/additional references should be submitted in a separate folder with proper reference mentioned against each parameter/sub parameter in respective appendices.

(c) Any supporting document/evidence without any reference to specific parameter of criteria will not form part of assessment. Such document may be used only at discretion of review committee/ person.

24. **Rejection Criteria for Selection as EoI Respondent.** The following may lead to rejection of EoI response:-

(a) Failure to meet the Commercial and Technical Evaluation Criteria given at Appendix D.

(b) Failure to offer compliance to any of the terms and conditions given in the EoI.

(c) Failure to agree with the project timelines.

(d) Failure to offer desired indigenous content.

(e) Any other parameter of the response considered inadequate.

25. The envelopes shall be addressed as under:-

Chairman, Project Facilitation Team
 Indigenous Foldable Fibreglass Mat (FFM)
 Air Cmde (AF Works) (Room No. 130)
 Air HQ (Vayu Bhawan)
 Rafi Marg, New Delhi-110001
 Telephone/ Fax: 011- 230601777
E-Mail ID: roomno130@gov.in

26. The response to this EoI must be submitted by **3:00 PM on 27 December 2019 (Six weeks from issue of EoI)** at the address mentioned above.

27. The Company will be required to sign and honor the 'Confidentiality Agreement' with MoD, Govt of India. The 'Confidentiality Agreement' will be furnished by each EoI respondent at the time of submission of EoI responses as per format given at Appendix E.

PART V: MISCELLANEOUS

28. **Pre EoI Response Meeting.** Companies may submit written queries/clarifications/ amplifications on specific issues within 10 days of the issue of EoI. A pre-response meeting will be held in about three (3) weeks after the issue of EoI to clarify issues / queries raised by the participating firms to facilitate submission of response. Date of pre-response meeting will be promulgated by the PFT.

29. Guidelines for penalties in business dealings with entities as promulgated by Government from time to time will be applicable on procurement process & bidders.

30. The Pre-Contract Integrity Pact (PCIP), listed as detailed in Para 92 of Chapter II of DPP 2016, shall apply mutatis mutandis to 'Buy (Indian-IDD) phase of the project.

31. Respondents would be subject to disqualification if they make false, incorrect, or misleading claims in their response to this EoI. A 'Correctness Certificate' as per the format at **Appendix F** will be furnished as part of the response.

32. Please acknowledge the receipt of this invitation for EoI.

File No: **Air HQ /36341/New Tech/FFM/ACE (L)**

Date : **15 Nov 2019**

-Sd/-
 (Sameer Bhatia)
 Colonel
 Secretary, PFT
 Project FFM
 for Chairman PFT

PRELIMINARY SERVICES QUALITATIVE REQUIREMENTS FOR DESIGN AND DEVELOPMENT OF INDIGENOUS FOLDABLE FIBREGLASS MATS FOR RAPID RUNWAY REPAIR UNDER MAKE II PROCESS

PART I - INTRODUCTION

During hostilities, the damaged runways need to be quickly repaired to sustain air operations. This document lays down Preliminary Staff Qualitative Requirements (PSQR) for Design and Development of an Indigenous Foldable Fibreglass Mat (FFM) System for rapid repairs to a damaged runway. The Design & Development will be undertaken under the revised Make II procedure of DPP 2016.

The document contains the following parts:-

- (a) Part I - Introduction
- (b) **Part II - Essential Operational Requirements.** These are the minimum essential requirements that must be met before conversion of PSQRs to the ASQRs before commencement of User Trials.
- (c) **Part III - Technical Characteristics.** These are technical characteristics of the FFM for guidance to the Development Agencies (DAs). Depending on the chosen technical solution by the DA, these will vary. These characteristics will be converted to ASQRs based on review of their compliance during User Trail Readiness Review (UTRR).

PART II – ESSENTIAL OPERATIONAL REQUIREMENTS

1. **Definition of FFM.** The Foldable Fibreglass Mat (FFM) system will comprise one or more mats made out of composite fibreglass material suitably reinforced with appropriate resins to provide a smooth Foreign Object Damage (FOD) free operating surface area over a damaged runway crater. In addition to the mats, the FFM system may comprise additional items such as joining panels, trims, hinges, locks, grouts, plates, pins, anchors, bushings, shims, bolts, nuts, screws, as well as tools and equipment for assembly, disassembly, installation, removal, fixing and removal of the FFM.

2. **Weight Capability.** The FFM should be able to support a maximum take-off aircraft weight of 65,000 Kg, without any damage or deformation to its shape or size.
3. **Operational Life.** When installed on a runway, the FFM system should provide a minimum life of 15 days without any damage to its operating surface, with an average of 100 sorties per day.
4. **Surface and Finish.**
 - (a) The upper surface of the installed FFM System should have the texture defined by the underlying woven weave pattern, which shall not be smoothed over by use of excess resin.
 - (b) The installed FFM system should be contiguous with adjoining runway surface. Difference in edge matching height should not exceed one half centimetre (0.5 cm) with adjoining surfaces of runway.
 - (c) The joining panels (which term shall include other panels such as overlap panels, finishing panels, edge trim panels, or other trim panels) shall have the same minimum mechanical properties as the rigid mat panels.
5. **Operating Temperatures.** The FFM should be able to sustain aircraft operations within an operating temperature range from **-30°C to +55°C**.
6. **Crater Repair Size.** One FFM system should be able to repair a crater size of 12m diameter with likely 2.5m heaves and cracks on external sides of the crater.
7. **Transportation Requirements.** It should be possible to transport the complete FFM System in a Commercial Vehicle with a Gross Kerb Weight not exceeding 7,500 Kg. For the purposes of transportation, the FFM System may be dismantled, folded, stowed, packed in a manner to fit inside and within the weight carrying limitations of a Commercial Vehicle.
8. **Installation/Commissioning Time.** Using a maximum gang size of **twenty men**, it should be possible to repair a crater completely in 90 minutes (the time includes, offloading the FFM System, its unloading, preparation for installation, its installation and finishing steps, if any).

PART III – TECHNICAL CHARACTERISTICS

9. **Physical Properties.**
 - (a) **Dimensions.**

SI No.	Specifications	Characteristics
(i)	Weight of FFM assembly	3400 Kg or less
(ii)	Operational FFM (two)	Each 30 Feet (L) x 54 Feet (B)
(iii)	Joining Panels (Two each)	(aa) 24 feet (L) x 2 feet (B) (ab) 30 feet (L) x 2 feet (B)
(iv)	Fibreglass panels	Each 06 feet wide, 30 feet long & 0.24 inches thick
(v)	Elastomer Hinges (08 hinges per mat panels)	3 inch wide
(vi)	Mat assembly (when folded)	6 feet wide, 30 feet long & 1.50 feet thick (approx)
(vii)	Resulting size of mat assembly for large crater	60 feet (L) x 54 feet (W)
(viii)	Thickness of Mat (Nominal)	0.20 inch approx
(ix)	Thickness of mat around perimeter (reinforced)	0.30 inch approx
(x)	Anchoring holes at four corners	Min 2 feet apart

(b) **Material.**

(i)	Rigid mats and joining panel	Fibreglass reinforced polyester resin composite
(ii)	Flexible hinges	Polyester reinforced polyurethane elastomer composite
(iii)	Requirements of one year weathering data	(aa) Fulfilled by testing sample laminates which have been exposed to artificial Ultraviolet (UV) light for 30 days. (ab) The UV-conditioned laminate must retain 75 percent of its initial flexural strength and retain 75 percent of its initial tensile strength.

(c) **Hinge Area Elastomer.**

(i)	Stability of elastomer in temp. Range	(-) 10 ⁰ C to 50 ⁰ C
(ii)	Minimum ultimate tensile strength of unreinforced elastomer	1000 psi
(iii)	Minimum elongation of unreinforced elastomer	(aa) 800% of the original dimension. (ab) After accelerated ageing

		at 50° C and 95% relative humidity continuously for 120 days, the unreinforced elastomer should retain at least 75% of its original tensile strength and elongation.
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(d) **Fiberglass Reinforcement.**

(i)	Woven roving	Constructed by weaving in plain weave fibreglass roving into a pattern consisting of four rovings per inch in the warp by two double rovings per inch in the fill.
(ii)	Average weight of woven roving	1.38 ± 0.08 kg per square meter
(iii)	Average diameter of the fibre type shell	0.00051 inch
(iv)	Average diameter of the other type shell	0.00040 inch
(v)	Weight of chopped fibre	0.61 ± 0.06 kg per square meter
(vi)	Length of randomly oriented fibres in chopped fibre	1.5 to 2.5 inches
(vii)	Minimum thickness of the ply	0.10 inch approx
(viii)	Nominal weight of a ply	02 Kg per square meter
(ix)	Additional hinges reinforcing material	Woven polyester cloth, 0.30 Kg/Square meter specially manufactured and sized (treated) for use with thermosetting polyester resins in the production of composite materials.

(e) **Properties of Rigid Mat and Hinge Area.**

	Location	Test	Requirement
(i)	RIGID MAT PANEL	(aa) Tensile Strength	> 17500 psi
		(ab) Flexural Strength	> 35000 psi
		(ac) Ignition Temp	Greater than 235°C
		(ad) Punch Shear	> 9000 psi

		(ae) Thermal Expansion	Less than 3.5×10^{-5} in/in/ $^{\circ}$ C
		(af) Hardness Top	>45
		(ag) Hardness Bottom	>25
(ii)	HINGE AREA	(aa) TC LP (Toxicity Characteristic Leaching Procedure) Test	Acceptable contaminates* [Should be below the max limit of 'D' listed wastes as per Environmental Protection Agency(EPA)]
		(ab) Ignition Temp	Greater than 235 $^{\circ}$ C
		(ac) Tensile Strength	> 29000 Kg/m

10. Joining Panels.

SI No.	Specifications	Characteristics
(a)	Dimensions Finished joining panel size	(i) 24 inches \pm 0.5 inch wide (ii) Panels shall be fabricated in two lengths, 30 feet and 24 feet (iii) Minimum panels thickness at any point shall be 0.20 inch \pm 0.05 inch
(b)	Material Construction of joining panels	(i) Open mould construction
	Joining panel reinforcement	(ii) The reinforcement should extend slightly over the edges of the mould and trimmed to proper dimension or it may be laid out to exactly 24 inches wide if the panel mould has edges that are built up with a lip.
(c)	Surface Texture	The upper surface of the panel shall have a texture defined by the woven roving weave pattern which shall not be smoothed over by use of excess (neat) resin.
(d)	Holes and Bushings	(i) The joining panel shall have 1.5 inch diameter holes in two rows. (ii) Each row of holes shall be placed along a common centreline with the rows 12 inches \pm 0.25 inches apart. (iii) A joining panel lower bushing shall be attached to the panel at each hole using two stainless steel rivets. (iv) The rivet head shall extend no more than

		0.125 inch above the surface and shall have no sharp edges or damage allowed. (v) The base of the rivet may extend below the surface of the joining panel lower bushing no more than 0.25 inch.
(e)	Physical Properties	The joining panel shall have the same minimum mechanical properties as the rigid mat panels.

11. Anchor Bolts.

SI No.	Specifications	Characteristics
(a)	Concrete Anchor Bolts	5 to 6 inches long and $\frac{3}{4}$ to 1 inch diameter.
(b)	Asphalt Overlay Anchor Bolt	9 to 9 $\frac{1}{2}$ inches long and $\frac{3}{4}$ inch diameter for use on 3 inch asphalt overlay of concrete runway.
(c)	Upper Joining Bushing	To comprise of steel bushing, plated, with bolt installed for joining folded fibreglass mat panels
(d)	Anchor Bushing	To comprise of steel bushing, plated, for anchoring joined folded fibreglass mat to runway.
(e)	FFM Lifting Bar	(i) To consist of steel lifting bar (spreader bar) to assist in handling Folded fibreglass mat set with one 10 tonne forklifter. (ii) Provide the ability to easily handle FFM with one forklift with a solid, stable, non-bending, non-flexing load lifting bar be such that it greatly reduces the possibility of damaging mats through dropping or dragging mat ends along the ground and reduce time and effort in moving FFM (iii) To be provided with five 11 feet nylon straps one for each cross bar.
(f)	Storage	Protective Fiberglass packaging panels are required to protect mats from physical and UV light damage during shipping and to provide additional protection during storage. The panels shall be fabricated with at least one ply of reinforcement. The panels shall be approximately 30 feet (L) x 6 feet (B)

STANDARDS/ SPECIFICATIONS

Ser No	Specifications	Description
1.	MIL-DTL-32265	Detail Specification Sheet – FFM Fabrication & Packaging
2.	MIL-Y-1140	Yarn, Cord, Sleeving, Cloth and Tape – Glass Resin, Polyester, Low Pressure Laminating Mats, Reinforcing, Glass Fiber
3.	MIL-R-7575	Resin, Polyester, Low-Pressure Laminating
4.	MIL-M-43248	Mats, Reinforcing, Glass Fiber
5.	MIL-STD-129	Marking for shipping and storage

NON – GOVT PUBLICATIONS**AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)**

Ser No	Specifications	Description
1.	ASTMG 154	Standard Practice for Operating Fluorescent Light Apparatus for UV exposure of Non metallic materials
2.	ASTM D123	Standard Terminology Relating to Textiles
3.	ASTM D696	Standard Test Method for Co-efficient of Linear Thermal Expansion of Plastics between -30° C and 30° C with a vitreous silica dilatometer
4.	ASTM D732	Test for shear strength by punch tool
5.	ASTM D790	Standard Test Methods for Flexural Properties of un-reinforced and reinforced plastics and electrical insulating materials
6.	ASTM D1929-96	Standard Test method for determining ignition temperature of plastics
7.	ASTM D4389	Standard specifications for finished glass fabrics woven from rovings – used instead of ASTM D 2410 test method for finish content of woven glass fabric, cleaned and after-finished with chrome complexes, for plastic laminates (withdrawn 1988)
8.	ASTM D2565	Standard practise for Xenon Arc Exposure of Plastics intended for outdoor
9.	ASTM D2583	Standard Test Method for Indentation Hardness of rigid plastics by means of a Barcol Impressor
10.	ASTM D3039/M	Standard Test Method for Tensile properties of polymer matrix composite
11.	ASTM D3950	Standard specification for strapping, non-metallic (and joining methods)
12.	ASTM D4801	Standard specification for polyethylene sheeting in thickness of 0.25mm (0.010 in.) and greater
13.	ASTM B633-07	Standard specification for Electro deposited coatings of zinc on iron and steel

FORMAT FOR EOI RESPONSE

PART I – VENDOR DETAILS

1. Name of Case: **Indigenous design and development of foldable fibreglass mat for rapid runway repair.**
2. Name of EoI Respondent:
3. Mailing Address/Contact/Phone/Email/Website (If factory site is located differently, indicate address of the same):
4. Name/Particulars of CEO:
5. Date of incorporation:
6. Brief history of company:
7. Nature of Company:
(Public/Private/Limited/Sole proprietorship etc)
8. Category of Industry:
(Large/Medium/Small/Micro/Start Up)
9. Nature of business *(Manufacturer/ Trader/ Sole Selling or Authorised Agent/ Dealer/ Assembler/ Processor/ Re packer/ Service Provider):*
10. Average Turn Over of the last three financial years:
11. Net worth of the company, as on 31 Mar of last FY (should be positive).
12. Details of current products:-
(Type/ Description, Licensed/ Installed Capacity, Annual Production for Preceding 3 Years):
13. Details of foreign collaboration(s), if any, related to execution of the project.
(Include details related to name(s) of the entity, work share planned – during design, development, as well as manufacture):
14. Have you supplied any product/services to MoD, Indian Army/Indian Air Force/ Indian Navy/ Indian Coast Guard/ DPSUs/ DRDO labs/Ordnance Factories, any other defence organisation etc.? (Provide indicative list, if applicable)

15. Details of permanent manpower:-
 - (a) Technical:
 - (b) Administrative:
16. Total Area of Factory:
 - (a) Covered area (Sq M):
 - (b) Uncovered area (Sq M):
 - (c) Any other space available (Sq M):
17. Is the factory space adequate to undertake design, development and manufacture of the FFM?
18. Any other information, relevant to the case.

PART II: PROJECT SPECIFIC INFORMATION

19. Outline proposal of the company to undertake prototype development.
20. Stages/phases of development, with indicative time schedules.
21. Milestones that can be demonstrated to facilitate project monitoring
22. Role, responsibility and expertise details of the firm, if any, and if applicable.
23. Role of foreign technology provider, if any.
24. Requirement of specialised testing assistance, where such facilities are available only with Armed Forces/DRDO/DGAQA/DGQA/DGNAI or any other Govt facility. (Please provide a list of such facilities, with time period for which required).
25. Information to prove design/developmental capacity:-
(Any past examples of indigenous design and development, R&D facilities available in house, if any; Technical/ R&D manpower/expertise available, institutional tie ups, MoU, laboratory and drawing office facility, CAD/CAM facility, percentage of total turnover spent on R&D during last three years etc)
26. Details of important facilities:
(Production facilities, CAD/CAM/Robotics, other advanced technology tools, environmental testing facilities, tool room, metrology and test eqpt facilities, instrumentation etc).
27. Please furnish an undertaking that design and development will be as per provisions and guidelines of Chap IIIA of DPP 2016, especially as they relate to IC and IPR.

28. Documents to be submitted along with this appendix, by the EoI respondent:-
- (a) Copy of latest certificate of incorporation by the Registrar of Companies.
 - (b) Audited Financial Statements (Profit & Loss Account and Balance Sheet) with Auditors Report.
 - (c) An undertaking as per para 21 above, signed by a duly authorised representative of the firm.
 - (d) Acceptance Certificate, clause wise of all terms and conditions given in the EoI.
 - (e) Confidentiality Agreement (As per format at Appendix E).
 - (f) Correctness Certificate (As per format at Appendix F).
 - (g) Undertaking as per Para 27 of this appendix.
 - (h) Self-certification for adequacy of engineering and technical ability for D&D of FFM.
 - (j) Certificate for PSQR compliance.

Note:-

1. All submissions must be supported by referenced documents duly authenticated.
2. Any input with incorrect or missing reference will not be assessed.
3. No separate financial, commercial criteria will be applied for start-ups.
4. Attach additional pages, as necessary.

COMMERCIAL AND TECHNICAL EVALUATION CRITERIA

Commercial Evaluation Criteria

SI No	Information	Pass Criteria
(a)	Nature of the Company	As per Appendix A of Chapter III A of DPP-2016
(b)	Ownership Status	
(c)	Category of Industry.	Large/Medium/ Small/ Micro/Startup
(d)	Annual Turnover	Average annual turnover of the applicant company for the last three financial years ending 31 st March of the previous financial year should not be less than 5% of the estimated cost of the project which is approx. Rs 235.00 Cr
(e)	Net Worth	Net worth of the entities ending 31 st March of the previous financial year should be " Positive ".

Technical Evaluation Criteria

SL No	Criteria and Sub Criteria	Pass Criteria
(a)	Engineering and technical ability	Self-certification by EoI respondent
(b)	Proposed indigenous content in percentage of total cost at prototype stage and final stage	As per Chapter IIIA of DPP 2016
(c)	Total Land area	Statement of firm for adequacy
(d)	PSQRs Compliance	Self-certificate of compliance by EoI respondent
(e)	Intellectual Property Rights (IPR)	Vendor to confirm IPR as per Para 18

CONFIDENTIALITY AGREEMENT

1. It is certified that Expression of Interest document for the project of Indigenous Foldable Fiberglass Mat (FFM) will not be shared with any agency in part or in full. Only relevant details, as applicable, will be shared with technology partners including foreign technology partners. However, the Eol document itself will not be shared with any technology partners.

2. The company understands the security sensitivity of such operational system and any information pertaining to deployment and usage of the system including system scaling will not be discussed with third party without a written permission from the Project Facilitation Team. The company understands that failure to observe this agreement will lead to disqualification from the project without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

Signature with Company Seal

Appendix F
(Refers Para 31
of Eol)

CORRECTNESS CERTIFICATE

It is certified that information submitted in the documents as part of the response to Expression of Interest for the project of Indigenous Foldable Fibreglass Mat (FFM) is correct and complete in all respects. It is acknowledged that the company will be disqualified from further participation if any information provided is found to be incorrect.

Signature with Company Seal