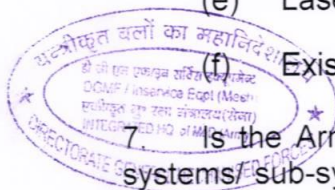
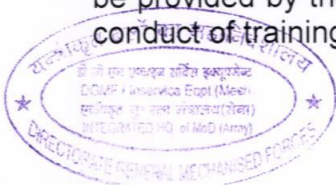


**QUESTIONNAIRE FOR DESIGN & DEVELOPMENT OF  
ARMT UPGRADE FOR BMP-2/2K**

1. Please provide details of the vendor as per Performa at **Annexure**.
2. Provide description of the vendor organisation in terms of Research and Development in sighting system and FCS with respect to AFV technology to include the financial capability and the technical expertise.
3. Provide details regarding major successful projects/ products/ technologies developed/ under development involving Research & Development in the field of Armament Upgrade for AFVs including Thermal Imaging for Sighting Systems and FCS with ATT.
4. Provide details of similar equipment manufactured by the vendor and supplied in India/ abroad, if any.
5. Please provide compliance to industry standards as under :-
  - (a) ISO 90012008/2015.
  - (b) ISO 2000 for service management.
  - (c) ISO 27000 for information security.
6. Does the vendor have the capability to develop a prototype and productionise the following :-
  - (a) Thermal Imager Based Gunner Sight (3<sup>rd</sup> Gen-MWIR/ LWIR).
  - (b) Thermal Imager Based Commander Sight (Panoramic) (3<sup>rd</sup> Gen-MWIR/ LWIR).
  - (c) Fire Control System.
  - (d) Automatic Target Tracker.
  - (e) Laser Range Finder.
  - (f) Existing performance Parameters of Armament to be retained.
7. Is the Armament Upgrade for BMP-2/2K (including all components) / systems/ sub-systems designed in India? If no, please forward details of all the foreign companies with whom there is a partnership/ Joint Venture/ MoU for carrying out the design and development?
8. Please furnish the technical specifications of the Armt Upgrade System for BMP-2/2K being developed by the vendor and specify the advantages/ differences in the technology vis-à-vis similar products available globally.



9. Does the vendor have adequate infrastructure to develop, integrate, test and manufacture Armament Upgrade System for BMP-2/2K? If yes, please provide details of the same. If no, what would be the timeframe for establishing the same?
10. What are the areas of uncertainty being envisaged by the vendor in the design, development and productionisation of the indigenous development of Armt Upgrade System for BMP-2/2K?
11. What is the approximate indigenous content the vendor will be able to achieve? Give a breakdown of the indigenous content and the imported technology (both in term of cost percentages).
12. What are the major components/ systems/ sub-systems that will be indigenously manufactured by the vendor? What will be the source of acquisition for the remaining components/ systems/ sub-systems (details of the source firms may be specified indicating whether the source firms are domestic/ ex-import)?
13. What are the anticipated timelines (in years) for development of the prototype and production? Specify the timelines separately for each.
14. What are the quantities that can be manufactured per year during production?
15. What is the likely shelf life of the equipment planned for Design & Development?
16. Does the vendor have the ability to sustain the Armt Upgrade System for BMP-2/2K throughout its life cycle including providing repair support down till component/ sub system?
17. What are the vendor's recommended list of Special Maintenance Tools (SMTs), Special Test Equipments (STEs), Test Jigs (TJs) and fixtures that would be required for maintenance support for its life cycle?
18. How will the vendor ensure continuous supply of spares for the system, especially for those components being procured ex-import, if any?
19. What type of proposed training manuals (User, QA & Maintenance) will be provided by the vendor? What will be the proposed training schedule for conduct of training (User, QA & Maintenance)?



20. What are the likely costs for research, development and production of the Arm Upgrade System for BMP-2/2K? Specify the costs separately for each?

21. What will be the approximate budgetary cost for manufacture of quantity 811 x Arm Upgrade System for BMP-2/2K?

22. What are the proprietary technologies incorporated in the system being developed? Are the proprietary technologies indigenous or ex-import? If ex-import, will the foreign vendor transfer the technology? Clarify the issues of Intellectual Property Rights (IPR) for the Arm Upgrade System for BMP-2/2K.

23. If firm is a JV, then who possesses/ will possess the intellectual and legal rights and ownership of the Armament Upgrade for BMP-2/2K being offered as part of this proposal?

24. What is the modus operandi of Transfer of Technology (ToT) of the imported technology to achieve self-reliance?

25. Is the vendor willing to transfer the technology to any DPSUs defence production partner in future? If yes, will the ToT include the proprietary technologies?

26. Does the vendor have a valid Government Industrial Licence for design, development and manufacture of such systems in India?

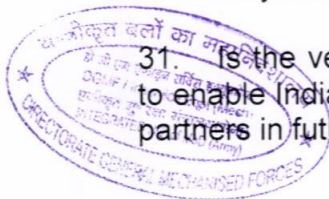
27. Will the vendor be able to provide upgrades to Armament Upgrade for BMP-2/2K?

28. Will the vendor also carry out necessary R&D to incorporate 3<sup>rd</sup> Generation ATGM systems, in case procured by Indian Army for the BMP-2/2K platform in future?

29. Any additional details in respect of the proposed development carried out may be provided.

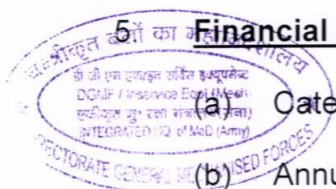
30. Any other details which the vendor would like to bring before the Feasibility Study may be provided.

31. Is the vendor willing to provide the system with an agnostic approach to enable Indian Army in incorporating system from other defence production partners in future?

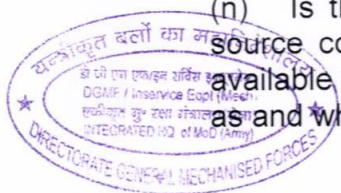


**INFORMATION PROFORMA (INDIAN VENDORS)**

1. **Name of the Vendor/ Company/ Firms**
2. **Type.**
  - (a) Original Equipment Manufacturer (OEM).
  - (b) Authorised vendor of foreign OEM.
  - (c) ToT partner of foreign vendor.
  - (d) Others (give specific details).
3. Is the firm a JV? If yes give specific details of stakes of each partner/ ownership/ legal rights.
4. **Contact Details.**
  - (a) Postal Address.
  - (b) URL / Website.
  - (c) **Contact of Rep.**
    - (i) Name.
    - (ii) Appointment/ Designation.
    - (iii) Mobile No.
    - (iv) Landline No.
    - (v) Email Address.
  - (d) Local Address/ Branch Office/ Liaison Office (if any).
  - (e) Any other contact details.
5. **Financial Details.**
  - (a) Category of Industry (Large/ Medium/ Small)
  - (b) Annual Turnover.
  - (c) Number of Employees.



- (d) Details of Manufacturing Infrastructure.
- (e) Earlier contracts with MoD, Govt of India/ Govt agencies.
6. Details of certification by Quality Assurance Organisation.
7. Details of Registration.
8. Membership of FICCI/ ASSOCHAM/ CII or other Industrial Association.
9. Equipment/ Product Profile (to be submitted for each product separation) :-
- (a) Name of Product.
- (b) Description (attach technical literature).
- (c) Whether OEM or Integrator.
- (d) Name and address of Foreign Collaborator.
- (e) Industrial License Number.
- (f) If Industrial License for the production of equipment not held, has the vendor applied for same? Give details.
- (g) Indigenous component of the product (in percentage) and value additions done by the vendor.
- (h) Details of Foreign Exchange (FE) content in percentage.
- (j) Stakes (In Service/ Design Development Stage/Ready available).
- (k) What are the applicable key technologies and materials required for manufacture of the equipment/ system/ platform and extent of their availability or accessibility in case they are not available in India?
- (l) What are the **Critical Technologies** which vendor has taken from their global partner (if any)? Give details.
- (m) Does the vendor have the capability to design, development, manufacture, test and integrate the system?
- (n) Is the complete set of the design and production drawing and source code for all software applications/ program of the equipment available with the vendor? If yes, can they be produced for verification as and when required?



- (o) Production capacity per annum? Is the production capability likely to increase?
- (p) In case the equipment is to be produced/ integrated indigenously, how much time will the vendor take to start production?
- (q) What is the recommended delivery schedule?
- (r) Countries/ agencies where equipment supplied earlier (give details of quantity supplied).
- (s) Estimated price of the equipment (component/ sub assy/ assy breakdown).
- (t) What are enhanced parameters/ specifications that can be provided by the OEM/ Vendor?
10. Alternative for meeting the objectives of the equipment set forth in the RFI/ EOI.
11. What INTERCOMS 2010 are suitable/ preferred by the vendor and for what reasons?
12. What is the preferred mode of shipment of goods? Rail, Road, Sea, Air or combination?
13. In view of vendor, what should be the preferred categorization (as per Chapter 1 of DPP-2016) for the procurement of the product by Indian Army?
14. Any other relevant information.
15. **Declaration.** It is certified that the above information is true to the best of my knowledge and any changes if any will be intimated at the earliest and informed accordingly.



2019

(Authorised Signatory)

Place :