

# **Expression of Interest (EoI) for Transfer of Technology (ToT) for DPICM Warhead: Pinaka**

## **1. Introduction**

Armament Research and Development Establishment (ARDE), Pune is an laboratory under Defence Research and Development Organisation (DRDO). ARDE is engaged in developing cutting edge technologies in the field of conventional armaments to cater to needs of Indian Armed Forces viz. Indian Army, Navy and Air Force.

## **2. Brief Description of the Technology**

DPICM Warhead: Pinaka is one type of warhead developed for artillery rocket: system named as Pinaka. The development of warhead is already completed & necessary trial evaluation by armed forces is underway. The various mechanical sub – systems of the warhead are as follows

- Outer ballistic casing
- Packaging unit
- Sub-munition
- Central burster mechanism
- Safety Arming & Short Device

## **3. Technology Transfer**

The technology will be transferred for Non-Exclusive basis only without transfer of the Intellectual Property Rights (IPR). Regulatory clearance, if any, from Indian Statutory Bodies/Agencies will be obtained by the respective ToT holder industries. ARDE, in any way, shall not be liable to regulatory clearance on behalf of any company. However, ARDE shall provide any assistance if required for successful ToT.

A committee of experts constituted by DRDO will visit the company sites for assessing strengths and capability as furnished by respective company before Technology Transfer. The industry willing to take technology will be required to enter into a ToT agreement with DRDO as per approved terms and conditions.

The following is required before undertaking ToT:

- a) Industry shall have license for manufacturing / processing and filling of high explosives (i.e HMX based )/ det(s) used in the warhead/ Sub-munition , license for processing of Flexible Linear Shaped charge of required charge mass including licence for processing of pyro-composition & corresponding squibs / dets in a semi automatic manner type set up for doing the work.
- b) In-house QA/QC department.

In-house facilities / infrastructure required for ToT:

- i) Centrifuge test facility 0-2000 g

- ii) Facility with appropriate safety measures for assembly of detonators with fuze components
- iii) Humidifier / dehumidifier for proper humidity control within filling & assembly rooms

### **How to apply**

Interested Industries may respond along with their company profile, financial & technical capabilities etc as per the following format:

1. Memorandum and Articles of Association (Should be incorporated as per Indian Companies Act, 1956).
2. Certificate of registration as a manufacturing unit, if any.
3. Balance Sheet for the preceding three years.
4. Income Tax returns for the preceding three year period.
5. Details of shareholding/ownership pattern especially foreign partners/shareholders, foreign employees, directors, etc. The company must adhere to the prevailing Govt. of India policies and regulations for Foreign Direct Investment (FDI)/DIPP norms as applicable.
6. Number of technically or professionally qualified personnel.
7. Record of past performance (e.g., supply orders executed against Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).
8. Availability of adequate infrastructure (List of machines and their production capacities) and technical expertise.
9. List of testing and support equipments.
10. List of products being manufactured
11. List of products being filled with High Explosives
12. ISO/ISI certification or any other certification.
13. Relevant clearances from the authorities/ministries (if any).
14. Capacity and capability to undertake developmental work and to accept attendant financial and commercial risks.
15. Fire safety, pollution control and other relevant certificates.
16. Expression of interest should be stamped and signed by authorized signatory with formal declaration note.
17. Any other relevant documents.

Interested Industry may write to:

#### **The Director**

**Armament Research and Development Establishment  
(ARDE), Armament post, Pashan Pune- 411021**

#### **The Director**

**Directorate of Industry Interface & Technology Management(DIITM)  
DRDO Bhawan Rajaji Marg New Delhi - 110011**