

Expression of Interest for Manufacturing, Partnerships under "Make in India" policy for self-reliance through Indigenization.

Objective: "Make in India" and Self Reliability

BEML is seeking manufacturing and technology partnerships with reputed OEMs looking to establish and/or expand their supply chains/manufacturing base in India for the manufacture of various goods and/or service business in the areas of Defence & Aerospace, Rail & Metro, Mining & Construction, Engines and aggregates with the overarching objective of "Make in India" and enhancing Self-Reliance in line with the vision of Honorable Prime Minister of India

1.0 Background:

BEML Ltd has three business verticals viz Defence & Aerospace, Rail & Metro and Mining & Construction with four manufacturing complexes located at Bengaluru, Kolar Gold Fields (KGF), Mysuru and Palakkad.

All the manufacturing divisions of BEML have been accredited with ISO 9001 – 2000 and ISO 14001 (HSC) certification. BEML has its own world-class composite R&D establishment for Design & Development of products.

The Company has a nationwide Marketing Network and an International Business Division for Exports activity.

Details of the BEML Ltd is available on www.bemlindia.in

2.0 Overview of BEML Capabilities:

BEML Limited, a Central Public Sector Enterprise coming under the Ministry of Defence was incorporated in 1964. Subsequently it became a listed company and is engaged in the design, development and manufacturing in the areas of Defence & Aerospace, Rail & Metro and Mining & Construction equipments.

2.1 Defence & Aerospace:

BEML Ltd is engaged in the business of High Mobility vehicle for all terrain operations, Heavy Recovery Vehicle, Pontoon Mainstream Bridge Systems, Crash Fire Tenders, Mobile Mast Vehicle, Engineering Mine Ploughs, Tank Transportation Trailers, Weapon Loading equipment, Armoured Recovery Vehicle, Milrail Coaches and Wagons, ground support vehicles and other products to the Indian and other Armed Forces.

2.2 Rail & Metro:

BEML Ltd is engaged in the business of Integral Rail Coaches, Overhead Inspection Cars, AC/DC Electrical Multiple Units, Stainless steel EMUs, Utility vehicles, Track Laying Equipment, Broad-gauge Railbus, Treasury Vans, Spoil disposal Units to the Indian and other Railways.

BEML Ltd has also successfully diversified into manufacturing state-of-the-art technology stainless steel Metro Cars for various urban Metro Corporations and enjoys a dominant market share in this segment

2.3 Mining & Construction:

BEML Ltd is engaged in the business of Hydraulic Excavators, Bulldozers, Wheel Loaders, Wheel Dozers, Dump Trucks, Motor Graders, Pipe Layers, Tyre Handlers, Water Sprinklers and Backhoe Loaders to customers in the Mining and Construction segments.

BEML has also developed Mining Dump trucks of 150 Ton and 200 Ton class and Excavators of both Hydraulic and Electrical of 180 Ton capacity.

3.0 Research & Development:

BEML Ltd has R&D establishment for Design & Development of hightech engineering products for its three verticals. It employs over 300 professionals with high experience and skills spanning a wide range of technology areas.

The R&D establishment has CAD Centre, Fluid-power, Powerline, Structural Engineering & Material Science laboratories and is continuously engaged in New Product Development and upgradation of existing products to meet customer requirements. More than 65% of Company's Sales Turnover is through in-house developed R&D products. The R&D expenditure is around 2 ~ 3% of its turnover.

4.0 International Business Division:

BEML has a sizeable market share in export markets with exports to 68 countries across the globe. Over the years this division has exported over 1200 machines covering all the three verticals.

5.0 BEML Ltd seeks partnership with reputed OEMs:

BEML is actively seeking partnerships with reputed Original Equipment Manufacturers (OEMs) looking to establish or expand their sourcing/manufacturing footprint in India. With extensive manufacturing facilities spread across India, a highly skilled and experienced manpower, presence and reach through its wide network of offices and divisions in India and a successful model of collaborating with other reputed OEMs, BEML is ideally placed to be the partner of choice in India for cooperation in various areas as below;

5.1 Defense & Aerospace:

- 1. Specialized vehicles such as Armoured amphibious Dozer, Truck mounted Excavator/Crane/Recovery vehicles, Snow ploughs/Snow cutters etc
- 2. Bridging systems
- 3. Tank Aggregates such as Engines, Auxiliary Power Unit (APU) etc
- 4. Loitering/Remote Ammunition
- 5. Rigid Axle for High Mobility Vehicles
- 6. Armoured /Protected Vehicles
- 7. Disaster Relief Equipment including Crash Fire Tenders
- 8. Artificial Intelligence and Robotics enabled systems such as Ammunition Handling systems, All Terrain unmanned Surface vehicles, Vehicle health monitoring systems, Electronic warfare system, Electronic battle field Management system etc
- 9. Assembly and Integration of Helicopters
- 10. Manufacture of Helicopter Aggregates, Tail rotor blades and Main Rotor blades
- 11. Fixed wing Aircraft aggregates
- 12. Airborne Weapon carriage/Release System
- 13. Actuators
- 14. Air Navigation system
- 15. Gears for Air bone equipment
- 16. Unmanned Aerial Vehicles (UAVs)
- 17. Landing Gear of Aircraft

5.2. Rail & Metro:

- 1. Metrolite / LRT/LRV
- 2. Medium speed EMV rolling stock including Aluminium Car body Technology
- 3. Maintenance Rolling stock with measurement and Monitoring technologies (for Track and OHE)
- 4. Bogie Design and Manufacturing for various Rolling stocks.
- 5. Aggregates such as Propulsion, Brake System, Interior Panels, PAPIS, Door System., etc

5.3 Mining & Construction:

- 1. Surface Mining Equipment like Walking dragline, Rope Shovel, Surface Miners
- 2. Underground equipment for Coal and Metalliferous Mines like continuous Miner system and Long wall Mining system
- 3. High Capacity Hydraulic Excavators, Dozers, Loaders and Dump trucks
 - a. Hydraulic Excavators 300 to 800 Tons
 - b. Electric Drive Dump Trucks 240 to 400 Tons
 - c. Wheel Loaders 500 to 1200 HP
 - d. Dozers 500 to 1200 HP
- 4. Autonomous vehicle for Mining application
- 5. Tier IV /V compliant Diesel Engine Technology from 150 HP to 1200 HP. Electro-Hydraulic system design and manufacture of hydraulic Aggregates like pump, control valve, cylinders, suspensions etc., for Mining equipment
- 6. Transmissions for Loaders, Dozers, Dump Trucks

- 7. Electric Drive system, Equipment Control system design and development for Mining equipment.
- 8. Mine automation systems and software

5.4. Emerging Opportunities:

- 1. Home land Security such as Integrated land, maritime and coastal control and surveillance systems, airport and seaport security systems, border control systems
- 2. Smart Cities which includes smart waste and recycling systems, smart energy grids, smart street lighting systems etc

6.0 Benefits of partnering with BEML:

BEML Ltd has an extensive Marketing network and service centers. BEML has a strong R&D in all business verticals which have developed high end Mining and Construction equipment such as 150 and 200 Ton Dumpers and 180 Ton Excavators etc. BEML have delivered more than 1600 Metro Cars and have a dominant market share in the Indian Market.

BEML is having extensive Land bank at Bangalore, Mysore, Kolar Gold Fields and Palakkad to partner for a Make In India Park for self-reliance through indigenization in line with "Make in India" vision of Honorable Prime Minister of India. The products manufactured through collaboration/partnership may also be exported to other countries.

7.0 Collaboration/Partnership model:

For engaging with reputed OEMs, BEML Ltd is open to the following modes of cooperation and any other structure that may in the best interests of contracting parties,

- a. Joint Ventures
- b. Joint manufacturing
- c. Technology licensing
- d. Contract manufacturing
- e. Know-how transfer arrangement

8.0 Contact Person:

Interested parties may forward their interest by providing the details of their organization with credentials and areas of interest by providing the time line to following address by post <u>(super scribing Eol reference CPC/VDS/JV/MII/2020-21 dt 06-05-2020) or email on or before 06-06-2020, 2 PM</u>

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