







## **COVERAGE**



- > Glimpse of BEML
- Performance Highlights
- Mining & Construction Business
- Rail & Metro Business
- Defence Business
- > R&D
- Business Scenario



## BEML - A GLIMPSE



❖ A Mini Ratna 'Category 1' Company under the Ministry of Defence, Govt. of India.

Incorporated

Core Business

: 11th May 1964

- Mining & Construction Equipment

- Defence Products

- Railway & Metro Products

Gross Sales in 1966

: ₹5 Cr.

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Gross / Net of Cons. Sales

: ₹3130 Cr. /₹2999 Cr. in 2014-15

**Exports 2014-15** 

: ₹ 107 Cr. (Physical) 378 Cr. (Deemed)

Equity base

: ₹41.77 Cr. Gol 54%, 46% Others

Net worth

: ₹ 2077 Crore (End Mar 2015)



## **SHARE HOLDING PATTERN**



and the second s	
Govt.of India	54.03%
IFIs	8.88%
Indian Public	10.89%
MFs	10.79%
Corp Bodies	8.02%
Flis	5.28%
NRIs/ OCBs	0.89%
Banks	0.31%
Others	0.91%
TOTAL	100.00%

As on 31st May 2015



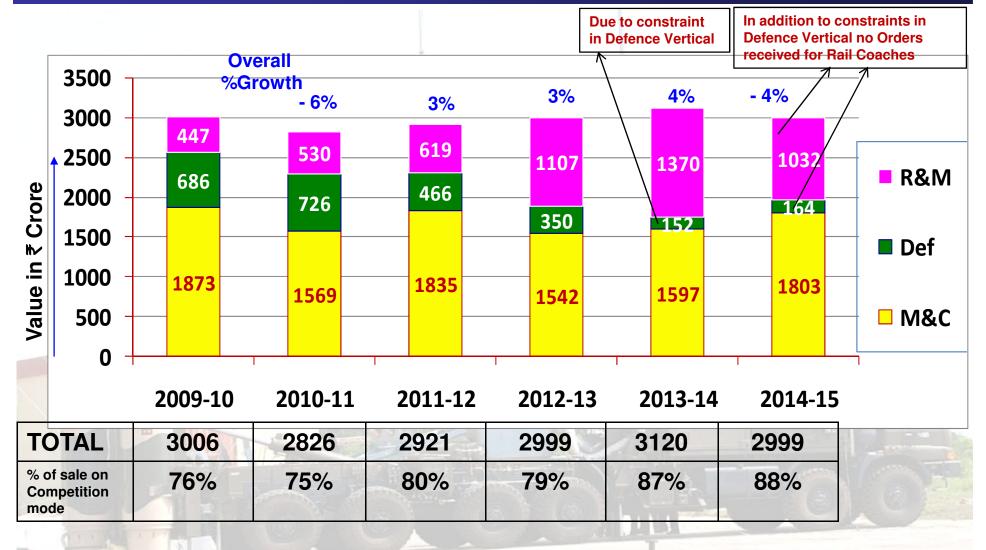






## **NET SALES**

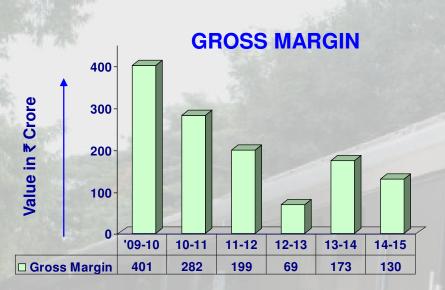


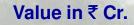




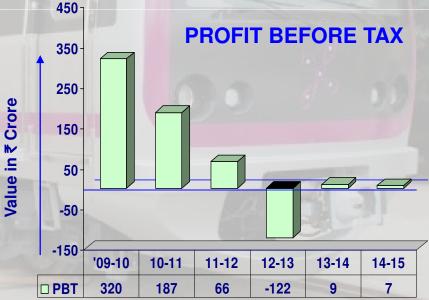
## GROSS MARGIN / PROFIT BEFORE TAX









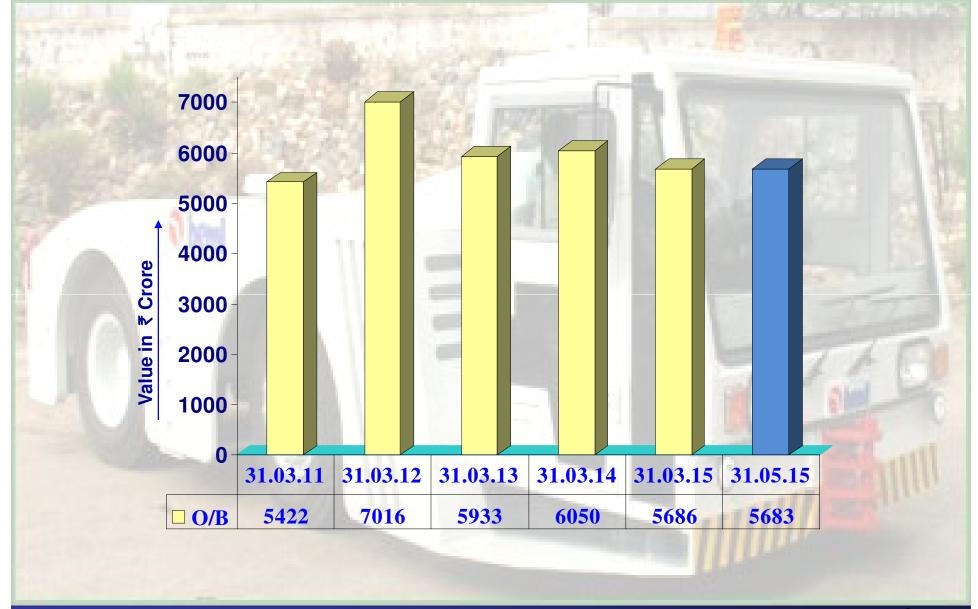


- Loss during 2012-13 Due to constraints in Defence Vertical
- Low off-take due to slump in M&C Market over 15% drop in demand.



## **ORDER BOOK POSITION**

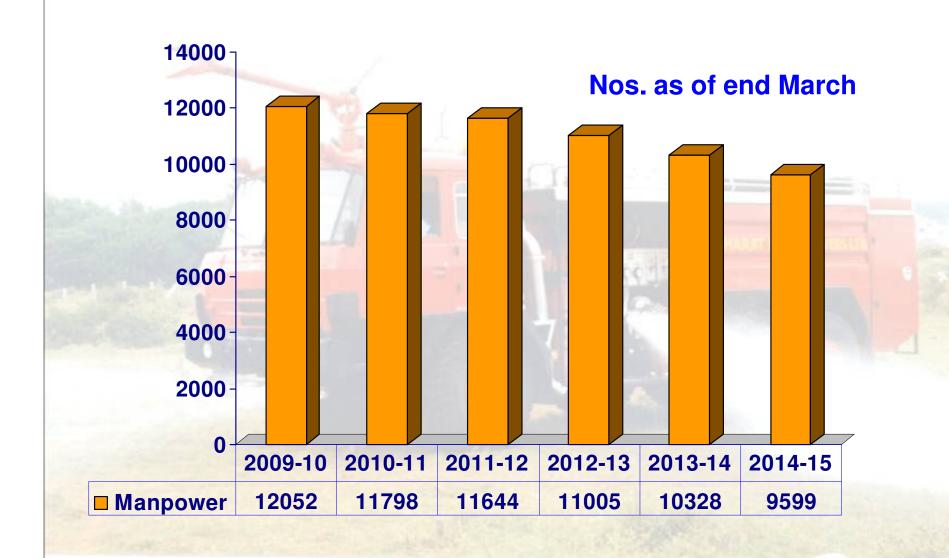






## **MANPOWER**



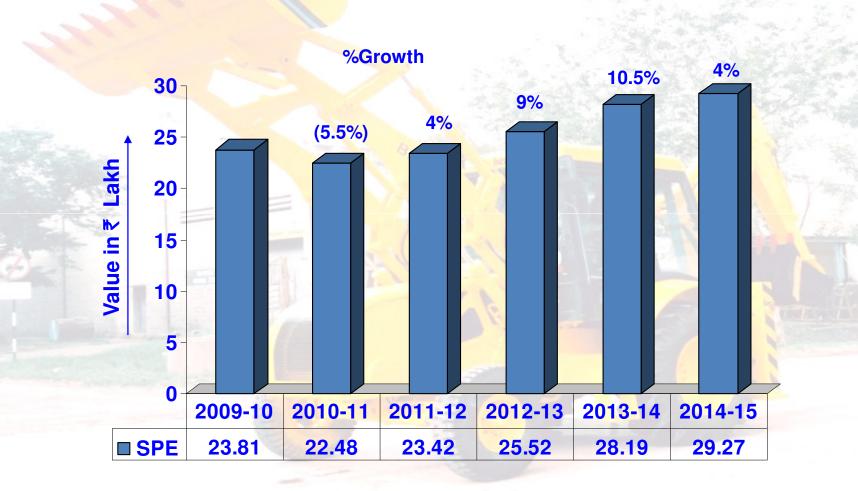




## SALES PER EMPLOYEE (NET SALES)



Value in ₹ lakh





## **ORDER BOOK – 2015-16 - AS OF END MAY'15**



Value in ₹ Cr

Business Group	Carry Forward orders as of 1st APR 2015	Sales Target 2015-16 (MoU)	2015-16		Total Orders on	Orders	Orders for	Orders required to
			Orders booked upto end MAY'15	Sales till end MAY'15	hand as of 1st JUNE'15	lavailable tor		meet Sales Target 2015-16
Mining & Construction	1561.56	1925.00	338.62	202.92	1697.26	590.26	1107.00	1131.82
Defence	2483.66	675.00	60.45	6.57	2537.54	506.74	2030.80	161.69
Rail & Metro	1640.91	1575.00	10.96	203.42	1448.45	1189.22	259.23	182.36
Total	5686.13	4175.00	410.03	412.91	5683.25	2286.22	3397.03	1475.87



## **BUSINESS GROUPS & PRODUCTS**







## **CURRENT PRODUCT RANGE**



#### MINING & CONSTRUCTION

DOZERS-BD 355, BD155, BD85, BD80, BD65, BD50 (90 - 415 FHP)



#### **DEFENCE**

**RAIL & METRO** 

**PASSENGER** COACHES - GS. GSCN



#### **DUMP TRUCKS-**

BH205E, BH150E, BH100A,BH85-1, BH60M,BH35-2 (35-205T)



**PONTOON MIDSTREAM SECTION - PMS** BRIDGE

VEHICLES - 12x12,

10x10, 8x8, 6x6, 4x4

**BEML HIGH** 

**MOBLITY** 



**ELECTRICAL MULTIPLE UNITS** - SSEMU, **ACEMU, DEMU** 



**EXCAVATORS-**

BE1800E,BE1600, BE1250,BE1000, BE700.BE300. BE220G, BE75 (0.3 -12 Cu.m)



ARMOURED **RECOVERY VEHICLE - ARV** 



**METRO CARS -**DMRC, JMRC, **BMRCL** 



WHEELED LOADERS -

BL200-1, BL9H (0.8 - 6.3 Cu.m)



**AKASH MISSILE** - SECTION IV &



**INTERMEDIATE CAR** 



**WATER SPRINKLERS** -

WS70, WS 28-2 (70,000 - 28000 Liters)



**BMP TRANSMISSION** 



**MAINTENANCE VEHICLES** – CMV. OHE



**MOTOR GRADERS** - BG825, BG605I,

BG405A (137, 145 & 285 HP)



**WAGON - BFAT** 



UTILITY **VEHICLES** 



DREDGERS -BE300LC (1.3 Cu.m)







## **MANUFACTURING UNITS**



#### **1** KGF COMPLEX

- EM DIVISION
- H&P DIVISION
- RAIL UNIT II
- HEAVY FABRICATION UNIT

#### 2 MYSORE COMPLEX

- EQUIPMENT DIVISION
- ENGINE DIVISION
- AEROSPACE MANUFACTURING DIVISION

#### 3 BANGALORE COMPLEX

- RAILWAY PRODUCTS, METRO CARS & DEFENCE PRODUCTS
- 4 PALAKKAD COMPLEX
  - DEFENCE PRODUCTS & RAILWAY PRODUCTS
- 5 VIGNYAN INDUSTRIES LTD- SUBSIDIARY OF BEML
  - STEEL FOUNDRY



## **MANUFACTURING UNITS**



#### **KGF COMPLEX**

BIRD'S EYE VIEW



HEAVY
EQUIPMENT
SHOP

**TEST TRACK** 



**H&P DIVISION** 



**RAIL UNIT - II** 



HEAVY FABRICATION UNIT



#### **MYSURU COMPLEX**

**BIRD'S EYE VIEW** 



FLEXIBLE MANUFACTURING SYSTEM



**WELDING ROBOT** 



#### PALAKKAD COMPLEX

HANGAR I & II





**HANGAR III & IV** 



#### **BENGALURU COMPLEX**

**FRONT VIEW** 



ROOF ROBOT SPOT WELDING



**CAR BODY JIGS** 



BOGIE LOAD TEST



WATER TIGHTNESS TEST



**VIL** 





## **MARKETING NETWORK**















## **DESIGN STRENGTH**



#### **Manpower (Engineers)**

Mining & Construction - 166, Defence - 30, Rail & Metro - 60











## **R&D CENTRE**





**POWERLINE LABORATORY** 



STRUCTURAL ENGINEERING LABORATORY



**FLUID POWER LABORATORY** 



**ENGINE TESTING LABORATORY** 



**MATERIAL SCIENCE LABORATORY** 

"MAKE IN INDIA"



## CAPABILITY ENHANCEMENT FOR R&D

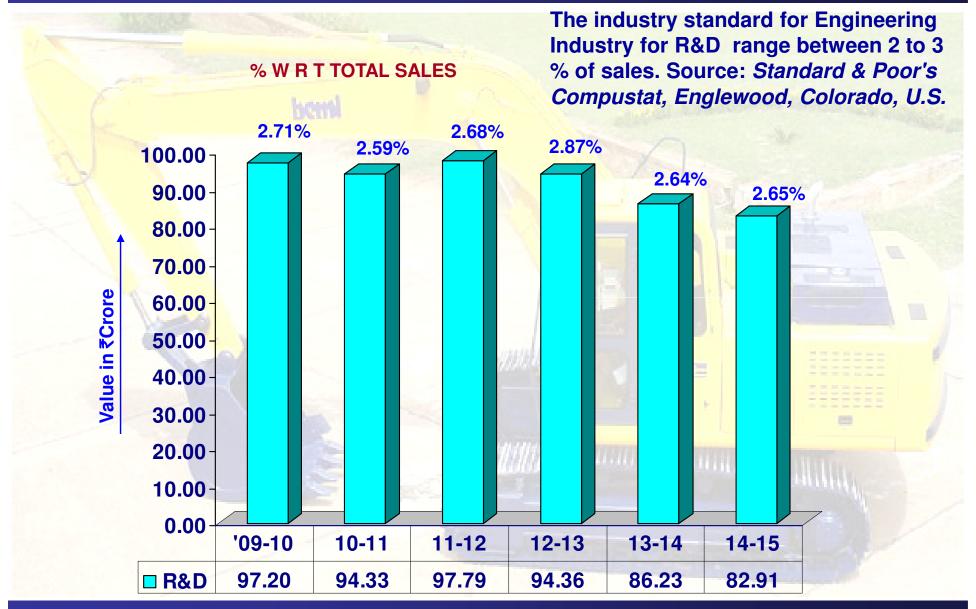


- Capability building in the area of Technology
  - > Tie up with (IIT-M) MoU signed for capability enhancement of the Engineers working in Production, R&D and allied areas and Joint working on R&D. Trained 149 Engineers.
  - > Tie up with:
    - IIT Kharagpur for Rail & Metro related research
    - Indian Institute of Science, Bengaluru (IISc) for Advanced **Product Design and Prototyping (APDAP)**
    - National Institute of Design, Ahmedabad (NID) for Engineering **Consultancy Services.**
  - > Setting-up of "Schools" for:
    - Hydraulic & Power line systems
    - Structures
    - Stainless steel welding
    - Electrical / Electronics



## **R&D EXPENDITURE**

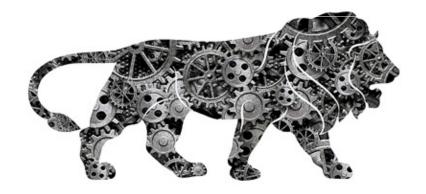








# PRODUCTS DEVELOPED BY BEML R&D



- Mining & Construction
- Defence

Rail & Metro



## **DOZERS**



#### **BD65-1 DOZER**



BD155 WITH ELECTRONIC ENGINE & ELECTRONIC TRANSMISSION



BD355 WITH ELECTRONIC ENGINE & JOY STICK CONTROL



"MAKE IN INDIA"



## **DUMPERS**





Electrical drive dump trucks
Designed & Developed First
time in INDIA









## **BE1800E - ELECTRICAL EXCAVATOR**





#### **FACE SHOVEL**

Gross HP: 2 x 300 kw@1500 rpm

**Operating Mass: 175000 kg** 

Bucket Capacity: 7.5 – 12.0 m<sup>3</sup>



#### **BACKHOE**

Gross HP: 2 x 300 kw@1500 rpm

**Operating Mass: 170000 kg** 

Bucket Capacity: 8.0 - 12.0 m<sup>3</sup>

#### "MAKE IN INDIA"



## **PRODUCTS DEVELOPED**



#### **CRASH FIRE TENDER**



#### **COMMAND POST VEHICLE**



FIELD ARTILLERY TRACTOR (FAT) 6X6



PONTOON BRIDGE SYSTEM

#### **MILRAIL COACHES**





## **BEML HEAVY DUTY HMV 8X8 VEHICLE**



















## **DEFENCE - R&D**



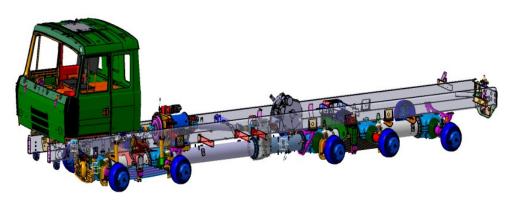
#### SMERCH PROJECT – 8X8 & 10x10



#### **AIRCRAFT TOWING TRACTOR**



# ARRV – UNDER DESIGN & DEVELOPMENT IN ASSOCIATION WITH CVRDE & ARMY







## RAIL & METRO - R&D



#### **SUB-URBAN - Trains**

#### **SS EMU**



- "Raksha Mantri Award" for `Design Effort for design & development of Country's first Stainless Steel Electric Multiple Unit (SSEMU)" for Indian Railways for Sub-urban commuting.
- > SS EMU also bagged the "Engineering Excellence Award 2013" as "Public Choice Award".

"Raksha Mantri Award" for `Design Effort' for design & development of Intermediate Cars.

#### **MAINTENANCE VEHICLES**

S.G. CATENARY MAINTENANCE VEHICLE FOR DMRC / MMOPL / DAMEPL



#### **METRO CARS**

**INTERMEDIATE CARS FOR DMRC RS4 / RS6** 

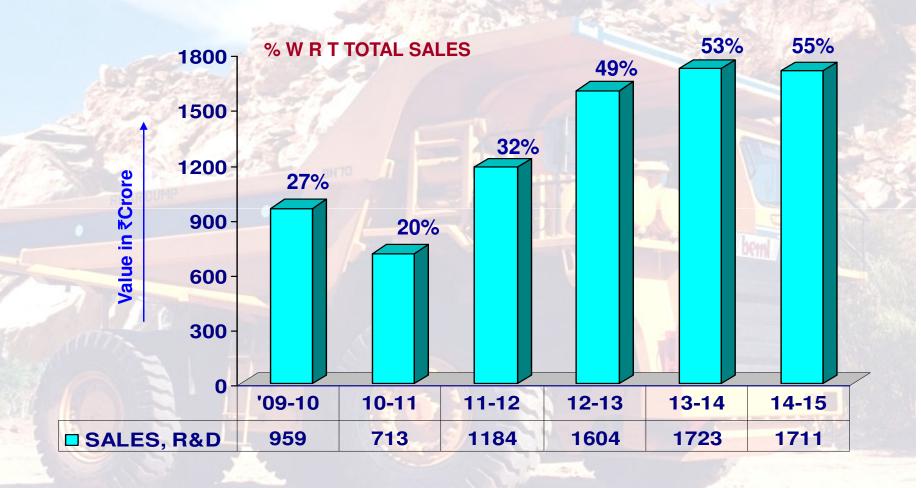




## **SALES TURNOVER OF R&D DEVELOPED PRODUCTS**



Value in ₹ Cr.











#### **MINING & CONSTRUCTION**



#### **SCENARIO**:

#### **Coal production:**

- Envisaged to increase from 0.5 billion ton to 1 billion ton in the next five years and the Market scenario is expected to pick up.
- Underground Mining is also expected to catch up and improve.

#### Power:

12th Plan has a strategy to <u>create a capacity of 90,000MW</u>.

#### Infrastructure:

During the 12th Plan period, India is planning to invest nearly ₹55 lakh crore (US\$1 trillion) on Infrastructure.

#### **Construction:**

NHAI plans to award <u>5,600-km highways contracts worth</u> ₹50000 crore during 2015-16.

#### **Exports:**

**Target Markets:** Africa, Middle East & SAARC Countries.

**❖** With all the above M&C market is expected to improve.



## **DEFENCE BUSINESS**



#### **SCENARIO**:

- Make in India:
  - **✓ Focus on indigenous production.**
- India's Defence production, during 12th Plan Period is aiming at building an indigenous Defence industrial base.
- India to spend around Rs. 5,50,000 crore (\$100~120 billion) during 12th plan period to buy Defence equipment and weapons.
- **For the year 2015-16**, the Budget envisages investment on Vehicles to the tune of over ₹19000 crore.
- **❖ OFB Engagement: For aggregates for Fighting Vehicles.**
- BDL Engagement: For full fledged Akash Missile less Warhead and Propellant.
- Opportunities exists for <u>Mounted Gun Systems and Multi Barrel</u> <u>Rocket Launchers.</u>



### **RAIL & METRO**



## **SCENARIO**:

- ❖ The 12th Plan has drawn plans for developing an efficient public and freight transport system. An outlay of ₹ 5,19,221 crore has been planned.
- Indian Rail Coach manufacturing is a perpetual business which is however, expected to graduate to Medium / High speed Coaches in the days to come. Orders will be pursued.
- **Sub-urban trains expected to graduate to Stainless Steel EMUs.**
- ❖ Opportunities also expected to emerge from <u>DEMU</u>, <u>MEMU and ACEMU</u> trains.
- **❖ Maintenance equipment requirements expected to increase:** <u>Track</u> <u>Maintenance equipment business</u> would be pursued.
- **❖** An opportunity valuing ₹60,000 crore for metro cars Rolling stock envisaged over next 10 years from various Metro projects including Light Rail Metro from tier II and tier III cities.





