



**Presentation
on
Bharat Electronics Limited**

BEL Overview

Navratna PSU

- Established in 1954 under MoD
- R&D / Technology driven Company operating in competitive Defence Electronics area
- Manpower: 9703 Employees

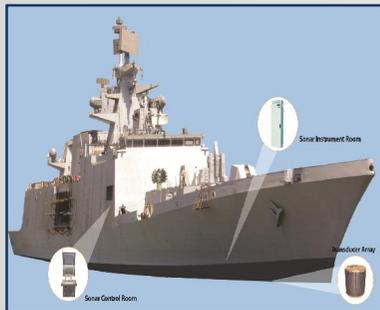
Subsidiary & JVs

- BEL Optronics Devices Ltd
 - Night Vision Image Intensifier tubes
- GE BE Pvt Ltd
 - Medical Electronics Parts, X-Ray Tubes
- BEL Thales Systems Ltd
 - Civil ATM and select Defence Radars

Manufacturing Network



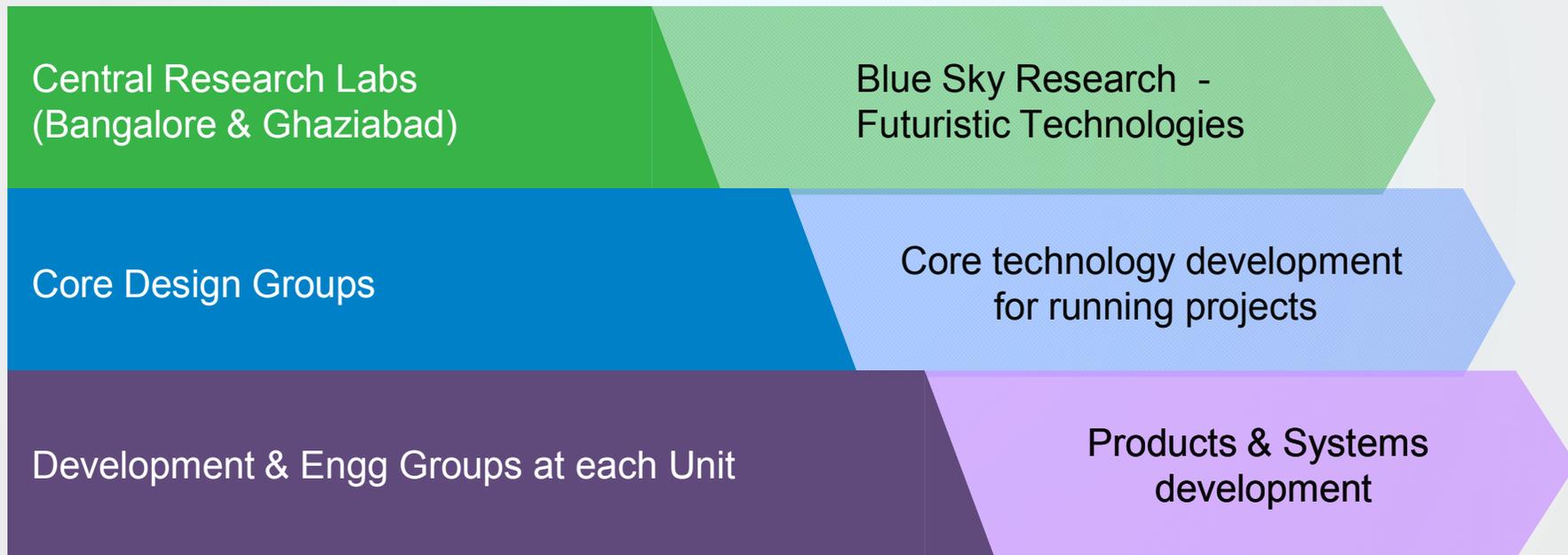
Business Segments



1. Radar & Weapon systems
2. Communication
3. Electronic Warfare
4. Network Centric Systems
5. Anti submarine Warfare
6. Electro-Optics
7. Tank Electronics
8. Civilian Products

Multi product, Multi technology company – Diverse product range

3 Tier R&D structure with 2153 Engineers and 30 R&D Centers



Expansion & Modernization



- **400 Crores annual CAPEX**
- **World class Manufacturing & Test facilities**
 - Super Components Facility
 - Test set up for Missile System
 - Antenna Test Range Facility
 - High Roof hangar for Radar & Antenna Integration
 - Modern Production setup for Airborne applications
 - Environmental Test facilities



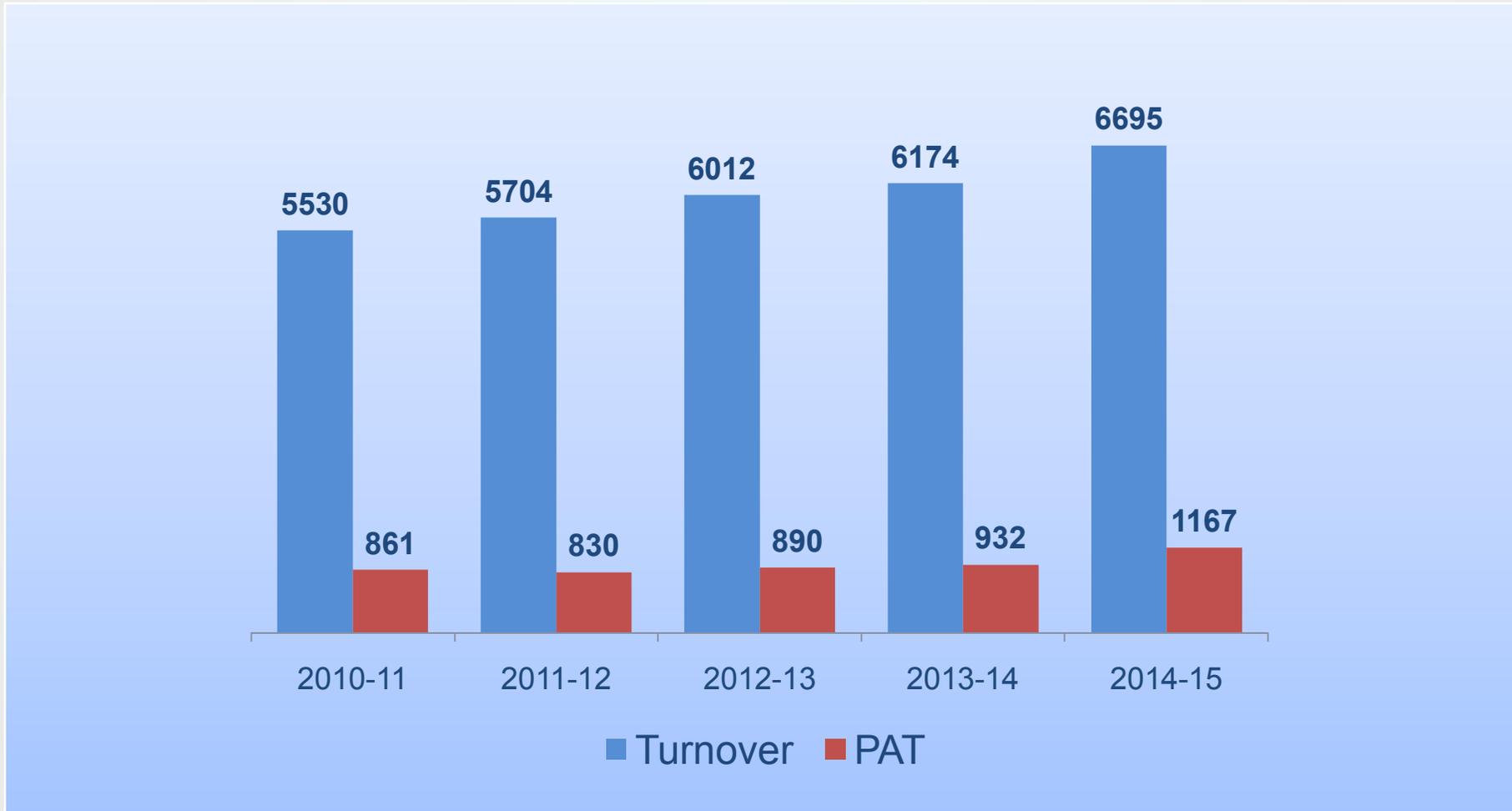
- **Dedicated Business Unit & Marketing Group for Exports**
- **Achieved USD 58 Million during 14-15**
- **Export Initiatives:**
 - Strategic alliances with global OEMs (Elbit, IAI, Thales, SAAB) for joint development / co-production
 - Focus on SE Asian Countries for Communication, Sonars and Coastal Security solutions

- **Major products exported:**
 - Coastal Surveillance System, Hull Mounted Sonar, L Band Radar, Comm. System, EVMs, Radar Finger Printing System, IFF, Radar Warning Receiver
- **Major countries:**
 - USA, UK, Russia, Italy, Myanmar, Brazil, Germany, France, Israel, Indonesia, Honduras, Malaysia, Maldives, Mauritius, Namibia, Seychelles, South Africa

Performance



Rs Crores



Major Orders Executed in 2014-15

- Akash Weapon System
- Passive Night Vision Devices
- 3-D Tactical Control Radar
- Missile Warning System
- Schilka Gun Tank Upgrade
- Laser Range Finder
- Hull Mounted Sonar
- Shipborne EW System (Sanket)
- Fire Control Systems
- Electronic Voting Machines

Major achievements in recent past



Induction of Akash Missile System to Indian Air Force

Akash is a great success story of the **'Made in India'** initiative and BEL is proud to be a part of it

Major achievements in recent past



Inauguration of Coastal Surveillance System at Seychelles by the Hon'ble Prime Minister of India



Inauguration of National Command Communication Intelligence Network by Hon'ble Raksha Mantri

Major achievements in recent past



Handing over of Schilka Air Defence Weapon System to the Army



Commissioning of INS Kamorta, fitted with BEL equipment, by Hon'ble Raksha Mantri

Major achievements in recent past



Successful test firing of Akash
Weapon System (Army, Air Force)



Handing over of 3-D Tactical Control
Radar to the Indian Army

Major achievements in recent past



Incorporation of JV for civilian radars & select Defence radars, BEL-Thales Systems



Elections in Namibia using Electronic Voting Machines made by BEL

Major achievements in recent past



Foundation for the BEL Training Academy laid by the Hon'ble Raksha Mantri



Inauguration of newly built Software Development Centre by the Hon'ble Vice President

Major achievements in recent past



Foundation for the Product Development & Innovation Centre laid at BEL-Bengaluru



Handing over of 60% per cent Interim Dividend for 2014-15 to Hon'ble Raksha Mantri

Scenario 2015-16 & “Make in India” initiatives

Major projects planned during 2015-16

- Akash Missile System
- 3D-Tactical Control Radar
- Low Level Light Weight Radar
- Hand Held Thermal Imagers
- Schilka Gun Tank Upgrade
- L70 Gun Upgrade
- New Generation Hull Mounted Sonar
- Gigabit Ethernet based Ship Data Network
- Combat Management System
- Ship Borne Electronic Warfare System
- Fire Control System
- Electronic Voting Machine

Company is likely to achieve 8-10% growth during 2015-16

'Make in India' – Outsourcing Initiatives

- BEL will be focusing more on core areas and R&D, all non-core areas will be outsourced to Indian Industries including MSMEs
- Inline with approach paper from Ministry, Draft Long term Outsourcing & Indigenization Policy prepared
- 'Make In India' Cell is proposed to be set up to implement BEL's Outsourcing policy
- Nodal officer for Outsourcing & Vendor developed nominated
- Planned to increase 'Contribution from Indian Industries' to 36% (current level 32%) in next 5 years
- Procurement from MSMEs has been increased to 8% during 2014-15 as against 4.73% during 2013-14
- Annually around 800 new indigenous vendors will be added (750 Vendors added during 2014-15)

'Make in India' – R&D and Indigenization Initiatives



- Around 80% of turnover is generated from Indigenous Technology
- R&D Investment will be increased to 10% of turnover (current level is 8%)
- Around 115 projects have been identified with a planned outlay of around Rs.118 Crs with 159 Collaborative partners (70 are Indian Private Industries)
- 3 years R&D plan for Indigenous development released
- 45 patents filed
- Setting up of Product Development & Innovation Centre initiated
- Image intensifier tube manufacturing facility being upgraded to XR5 technology
- Proposed to establish fabrication facility for Cooled TI Detectors in the country
- ToT for Artillery Ammunition used in Electronic Fuse project being inducted

New infrastructure augmentation planned

- New Missile Integration Range at Anantapur, Andhra Pradesh
- Test Bed for Missile Systems at Bangalore Unit
- Sonar Transducer Integration & Testing Facility at Bangalore Unit
- Additional Near Field Test Range (NFTRs) at Bangalore & Ghaziabad Units
- Facility to manufacture Zinc Sulphide (ZnS) Domes
- Highly Accelerated Life Test & Stress Screening Facility
- Tactical Communication System (TCS) Test Bed
- Battlefield Management System (BMS) Test Bed
- Robotic Welding facility
- 50MW Solar plants being setup
- Wind Energy Power Plant

Investment of 1500 Crs planned for next 3 years on Expansion & Modernization

Future Outlook



- Radars, Missile Systems, Communication and Network Centric Systems, Tank Electronics, Gun Upgrades and Electro-Optic Systems and Electronic Warfare and Avionics Systems will drive BEL's growth
- Continuous investments in R&D and Modernisation of facilities
- Thrust on Exports, Offsets and Buyer Nominated Equipment
- Company diversification initiatives in the areas of Homeland Security, Smart Cards, Smart City elements and Solar power plants
- Strategies and action plans in place to face competition, maintain technological edge and retain leadership position in strategic electronics

Company is expected to grow with CAGR of 8-10% in next 5 years

Thank You