



भारत इलेक्ट्रॉनिक्स लिमिटेड

(भारत सरकार का उद्यम, रक्षा मंत्रालय)

पंजीकृत कार्यालय :

आउटर रिंग रोड, नागवारा, बेंगलूर - 560 045, भारत

**Bharat Electronics Limited**

(Govt. of India Enterprise, Ministry of Defence)

Registered Office : Outer Ring Road,

Nagavara, Bangalore - 560 045, INDIA.

CIN : L32309KA1954GOI000787

टेलीफ़ैक्स/Telefax : +91 (80) 25039266

ई-मेल/E-mail : secretary@bel.co.in

वेब/Web : www.bel-india.com

To,  
National Stock Exchange of India Ltd.,  
Exchange Plaza, Plot No. C/1,G Block,  
Bandra-Kurla Complex, Bandra (E)  
Mumbai – 400 051

No. 17565/6/SE/NSEC/SEC  
25<sup>th</sup> September 2018

Dear Sir/Madam,

**Sub: Presentations Made at Analysts Meet held on 25<sup>th</sup> September 2018.**

In continuation to our earlier letter dated 3<sup>rd</sup> September 2018, please find enclosed herewith copy of the presentation made at Analysts Meet held on 25<sup>th</sup> September 2018. The same is also being put on Company's website as per the provisions of the SEBI (LODR) Regulations, 2015.

Thanking you,

Yours faithfully  
For **Bharat Electronics Limited**

A handwritten signature in blue ink, appearing to read 'S. Sreenivas', written over a horizontal line.

**S. Sreenivas**  
**Company Secretary**

Encl: As stated above



Presentation  
on  
Bharat Electronics Limited

## Navratna PSU

- Established in 1954 under MoD
- R&D / Technology driven Company operating in competitive Defence Electronics area
- Manpower: 9726 Employees (as on 31.03.2018)

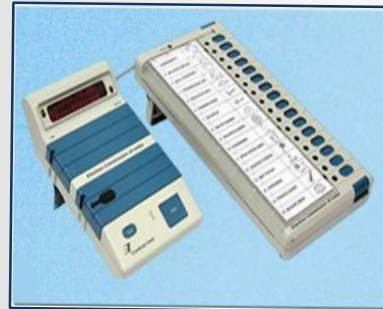
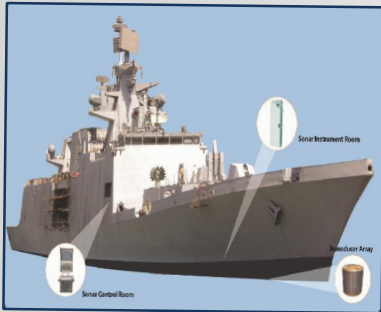
## Subsidiary & JVs

- **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
2. Missile System
3. Communication
4. Electronic Warfare & Aviation
5. Network Centric Systems
6. Anti submarine Warfare
7. Electro-Optics
8. Tank Electronics
8. Home Land Security
10. Civilian Products

**Multi product, Multi technology company – Diverse product range**

## Research & Development (R&D)

- 47% Engineering Manpower deployed in R&D
- 89% Sales Revenue from Indigenous R&D
- R&D investment: Rs. 988 Crs during 2017-18
- CMMi Level-5 Certification for Software development
- Largest Production Partner of DRDO
- Patents Application Filed – 107, Patents Granted - 07

### Central Research Labs (2 Centers)

**Blue Sky Research (Futuristic Technologies)**  
(Radio Frequency & Microwave; Embedded Computing System; Radar Signal Processing; Communication (Software Defined Radio & Wireless); Network Centric Software; Sensor Signal Processing; Very Large Scale Integration, Smart Computing System; Networking; Sensor Data Fusion;

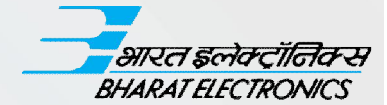
### Central Design Group and Product Development & Innovation Center (2 Centers)

**Core Technology Module development Groups**  
(Defence Software; Encryption; Radio Frequency; Microwave; Radar Signal Processing; Power Supply; Control Electronics, Embedded System; Computing Elements; Electro Optics, Communications)

### Development & Engineering Groups (20 Centers)

**Products & Systems development**

# R&D Investment



Value in Rs Crores



## Expansion & Modernization



### **600 Crores annual CAPEX**

### **World class Manufacturing & Test facilities**

- **Super Components Facility**
- **Test set up for Missile System**
- **Secured Manufacturing Facility for EVM / VVPAT**
- **Antenna Test Range Facility**
- **High Roof hangar for Radar & Antenna Integration**
- **Modern Production setup for Airborne applications**
- **Near Field Test Range and EMI/EMC Test Facilities**
- **Two new factories planned at Devanahalli & Nagpur – land is being acquired**

## Expansion & Modernization

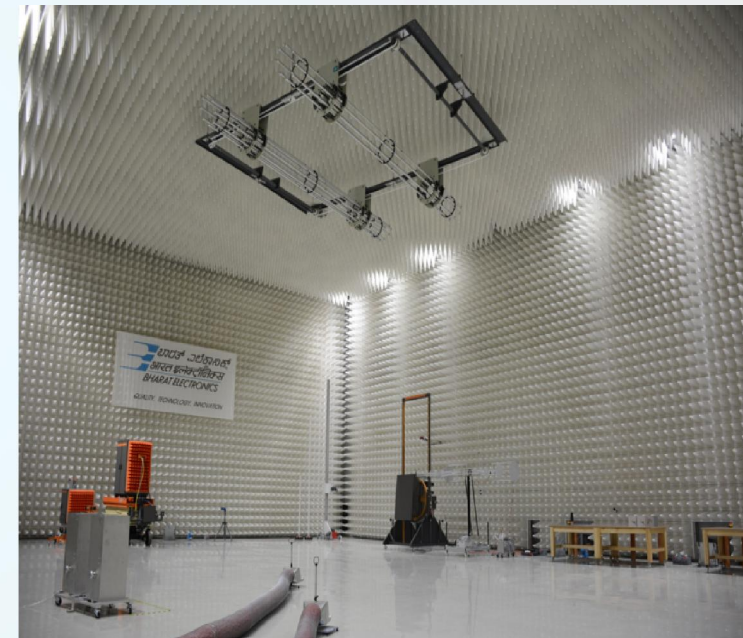
Value in Rs Crores





## Expansion & Modernization

- Advanced EMC Testing Facilities of size 11m x 21m x 30m which can conduct testing of Systems / Platforms weighing up to 70 Tonnes.
- Near Field Antenna Test Range (NFTR) facility for calibration and testing of Radars and communication antennas
- Established High level Shock Testing Facility capable of imparting mechanical shocks up to 120g level for equipment weighing up to 800 kg
- Secured Manufacturing Test facility established for production of EVMs and VVPATs
- State of the art Electronic Artillery Fuze manufacturing



**Electro Magnetic Compatibility (EMC)  
Chamber for system level testing**



- **Dedicated Business Unit & Marketing Group for Exports**
- **Achieved USD 26 Million during 17-18**
- **Export Initiatives:**
  - Strategic alliances with global OEMs (Elbit, IAI, Thales, SAAB) for joint development / co-production
  - Focus on SE Asian Countries for Comn, Sonars and Coastal Security solutions
  - Established Marketing office in Vietnam and will establish more marketing offices in Myanmar, Sri Lanka, Oman, USA and Singapore by Mar 2019

- **Major products exported:**
  - Coastal Surveillance System, CoMPASS, Advanced Composite Communication System, Electro Mechanical parts etc.
- **Major countries:**
  - USA, UK, Russia, Italy, Myanmar, Brazil, Germany, France, Israel, Indonesia, Honduras, Malaysia, Maldives, Mauritius, Namibia, Seychelles, South Africa

# Major Orders Executed in 2017-18

## Integrated Air Command & Control System



## Fire Control System



## L70 Gun Upgrade



## Akash Weapon System



## Major Orders Executed in 2017-18



Weapon Locating Radar



Electronic Fuze



Electronic Voting Machine



Voter Verifiable Paper Audit Trail

## Major Orders Executed in 2017-18



Schilka Upgrade



3D Tactical Control Radar



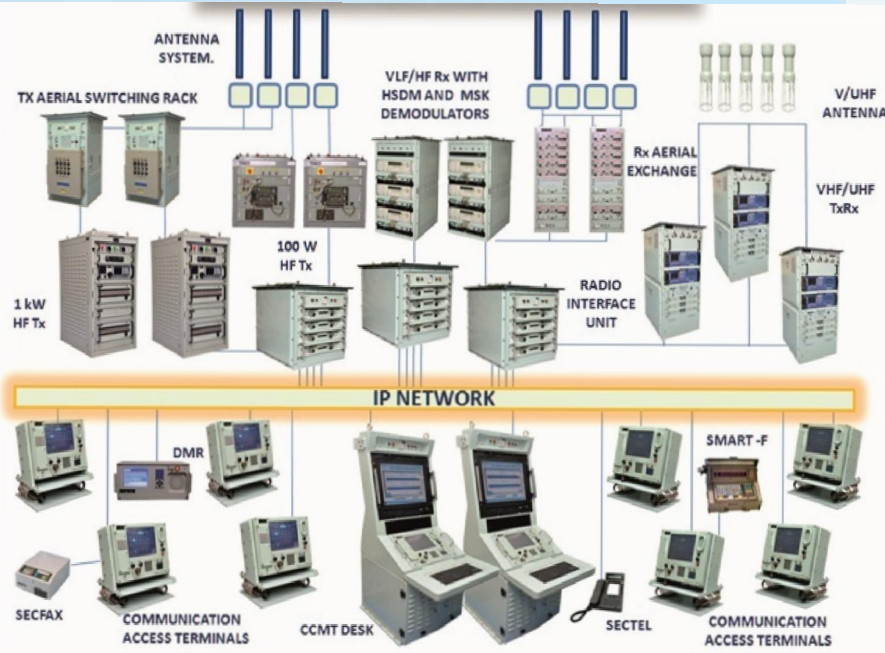
HHTI with LRF



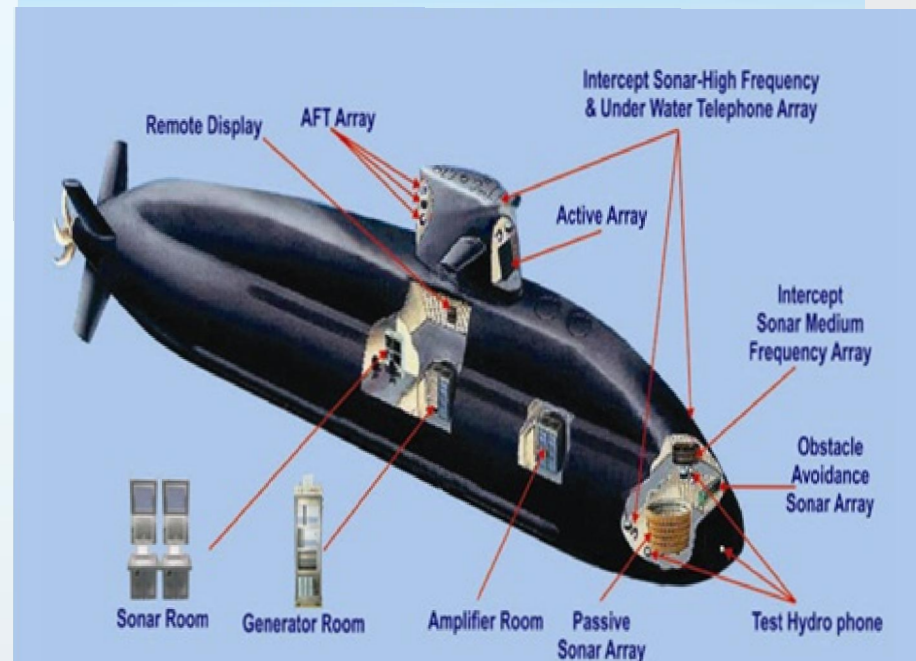
Battle Field Surveillance System

# Major Orders Executed in 2017-18

## Advanced Composite Communication System

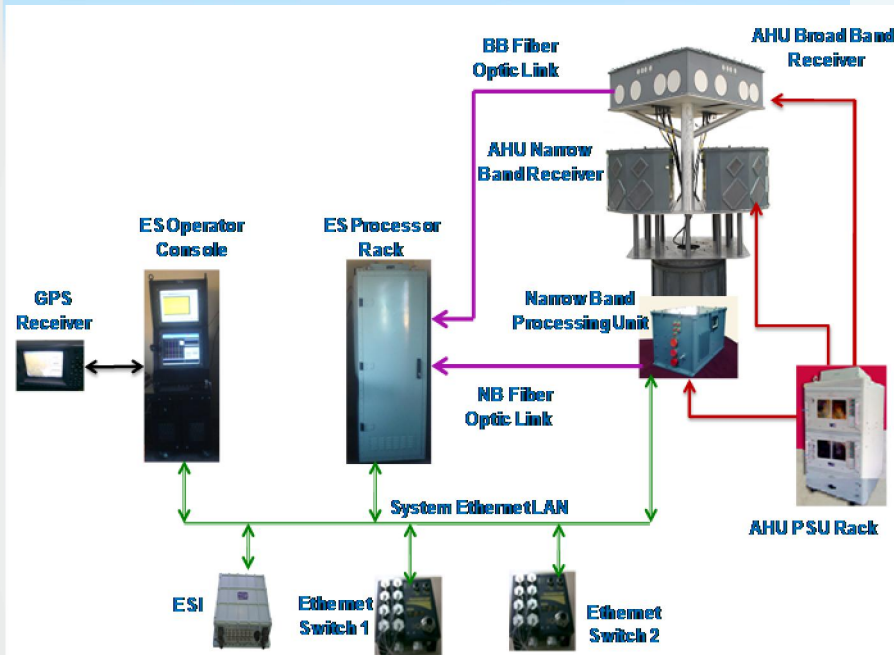


## Submarine Sonar Suite (USHUS 2)



# Major Orders Executed in 2017-18

## Ship Based EW System (Varuna)



## Ground Based Elint



## New Products Introduced in 2017-18

- Ground Based Mobile Elint System
- Lynx U2 for SNF and P15
- Radio on the Move for QRSAM
- Advanced Composite Communication System for P15B
- Ship Data Network for P16A
- Multi Purpose Reflex Weapon Sight
- Universal Lab Test Rig for Radar Warning Receiver
- Mine Field Recording System
- Electronic Voting Machine Mk II
- Voter Verifiable Paper Audit Trail Mk II



### **Major Orders Received during 2017-18**

- Voter Verifiable Paper Audit Trail & Electronic Voting Machine
- Commander Thermal Imager Sights for T72 & BMP
- Hull Mounted Sonar for P71
- Low Intensity Conflict EW System
- Surveillance Radar Element
- Strategic Communication System

### **Major Orders Likely to be Received during the year**

- Akash Missile System
- BMP Upgrade
- Commander Thermal Imager Sights for T90
- Samyukta Upgrade
- Instrumented EW Range
- Coastal Surveillance System

***Orders Received in current year is Rs. 14000 Cr, including LRSAM Rs. 9236 Cr***

## Scenario 2018-19 & Make in India

## Major Projects planned during 2018-19

- Integrated Air Command Control System
- Tropo Upgrade
- Weapon Locating Radar
- Low Level Transportable Radar
- Low Intensity Conflict EW System
- Commander Thermal Imager Sights
- Ground Based Mobile ELINT
- Electronic Fuzes
- Schilka Upgrade
- L70 Gun Upgrade
- Ship Borne EW System - Varuna
- Electronic Voting Machines & VVPAT
- Homeland Security

## Business Initiatives

- Acquiring land at High tech Defence & Aerospace Park at Devanahalli for pursuing business in areas like Satellite Integration, Space Electronics, Unmanned Systems, etc
- Engagement with potential Strategic Partners (identified by MoD) in the areas of aircrafts, tanks and submarines
- Dedicated Business vertical to address Cyber Security, Unmanned Systems and Composites
- Thrust on exports, offset and contract manufacturing
- Expanding Global presence with new overseas offices
- Progress on diversification initiatives of BEL in the areas of Homeland Security & Smart City Business, Ammunition Fuzes and RF Seekers have been satisfactory. BEL is having revenue inflow in these areas

## 'Make in India' Initiatives

- 89% of Sales Revenue from Indigenous technology
- BEL is focusing more on core areas and R&D to retain IP, all non-core areas are being outsourced to Indian Industries including MSMEs
- Outsourcing and Vendor Development Policy has been released
- “Make in India” Display Cells established in all Units of BEL
- Nodal officers for Outsourcing & Vendor development nominated
- Complied with Public Procurement Policy
- BEL's Test facilities are being provided to Private vendors



## Outlook for the Future

- BEL to continue indigenisation efforts in line with 'Make in India' initiative
- Radars, Missile Systems, Communication & Network Centric Systems, Tank Electronics, Gun Upgrades, Electro-Optic Systems and Electronic Warfare & Avionics Systems to drive BEL's growth
- Establishment of state of art new factories at Machilipatnam for Electro Optics and Anantapur for future Missile programs
- Company pursuing business opportunities in Space Electronics, Solar Energy, Homeland Security, Smart Cards and Telecom
- Strategies and action plans in place to face competition, maintain technological edge and retain leadership position in strategic electronics

*Thank You*



**ANALYSTS MEET**  
**25.09.2018**



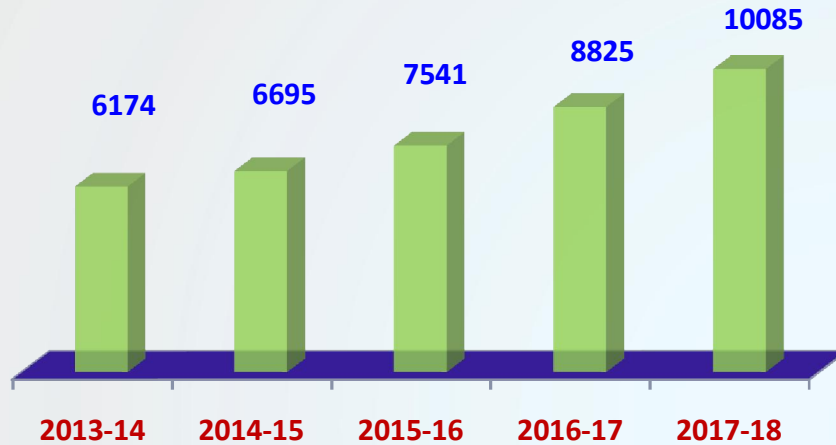
## Financial Highlights 2017-18

- Turnover registered a growth of 14.28% from ₹ 8824.70 Crores in 2016-17 to ₹ 10084.84 Crores in 2017-18.
- Value of Production has increased from ₹ 8715.27 Crores in 2016-17 to ₹ 9627.67 Crores in 2016-17. An increase of 10.47%.
- Operating Profit rose by 11.37% from ₹ 1,570.19 Crores in 2016-17 to ₹ 1,748.73 Crores in 2017-18.
- Net Worth has increased from ₹ 7508.54 Crores in 2016-17 to ₹ 7761.01 Crores in 2017-18.
- Turnover per employee has increased from ₹ 0.91 Crores in 2016-17 to ₹ 1.04 Crores in 2017-18

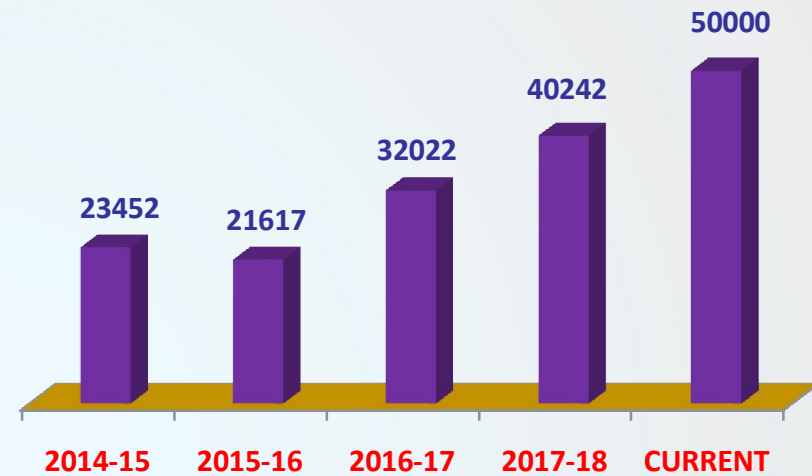
## Financial Highlights 2017-18

- Earning Per Share was ₹ 5.70 in 2017-18.
- Book Value per Share was ₹ 31.85 in 2017-18.
- Profit Before Tax (PBT) was ₹ 1947.84 Crores in 2017-18.
- Bonus Share issued at 1:10 in October, 2017
- Buy Back of 2.04 Crores of equity shares of ₹ 1 each fully paid-up at price of ₹ 182.5 per Share aggregating to ₹ 372.26 Crores.

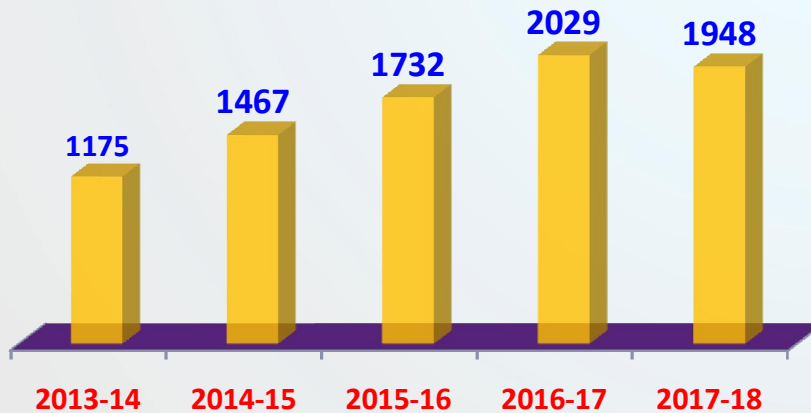
**GROSS TURNOVER** (₹ in Crores)



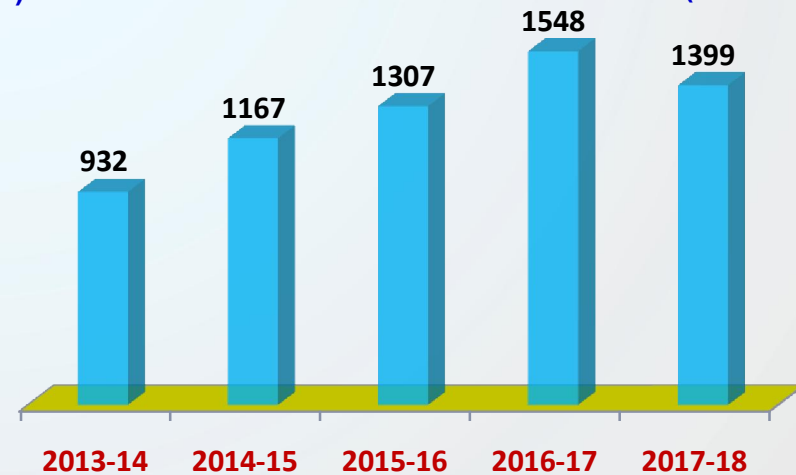
**ORDERS ON HAND (as on 31st March)** (₹ in Crores)



**PROFIT BEFORE TAX (PBT)** (₹ in Crores)

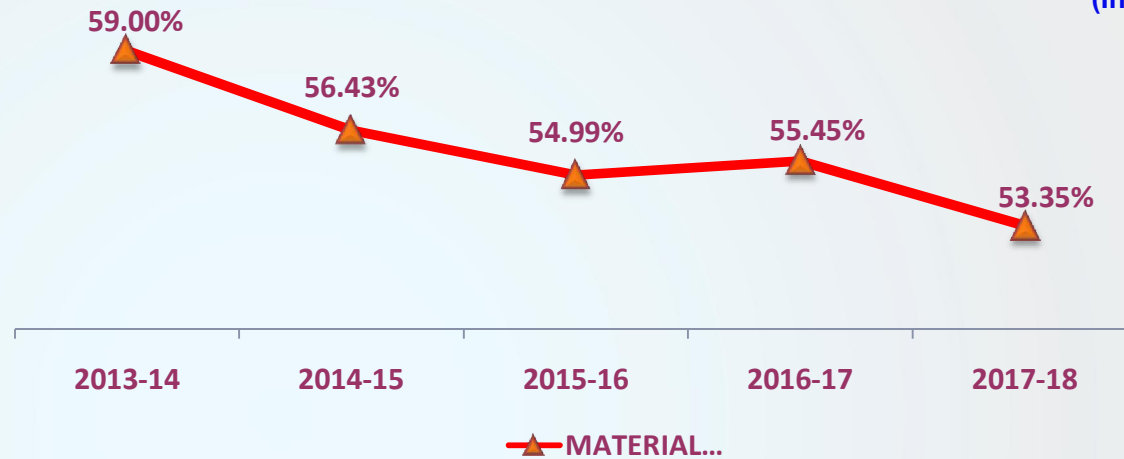


**PROFIT AFTER TAX (PAT)** (₹ in Crores)

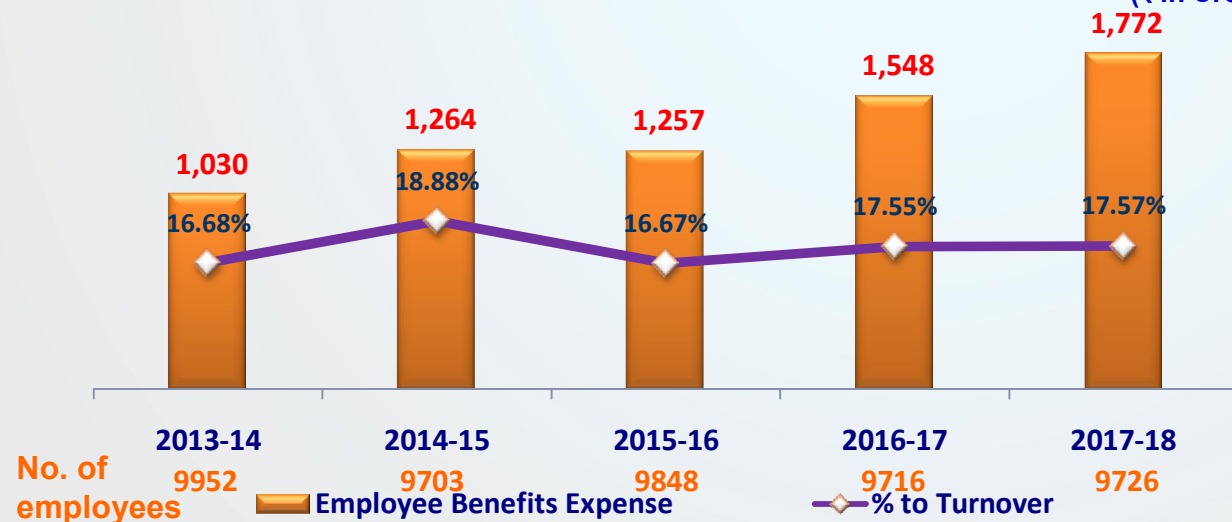


### MATERIAL CONSUMPTION TO VOP

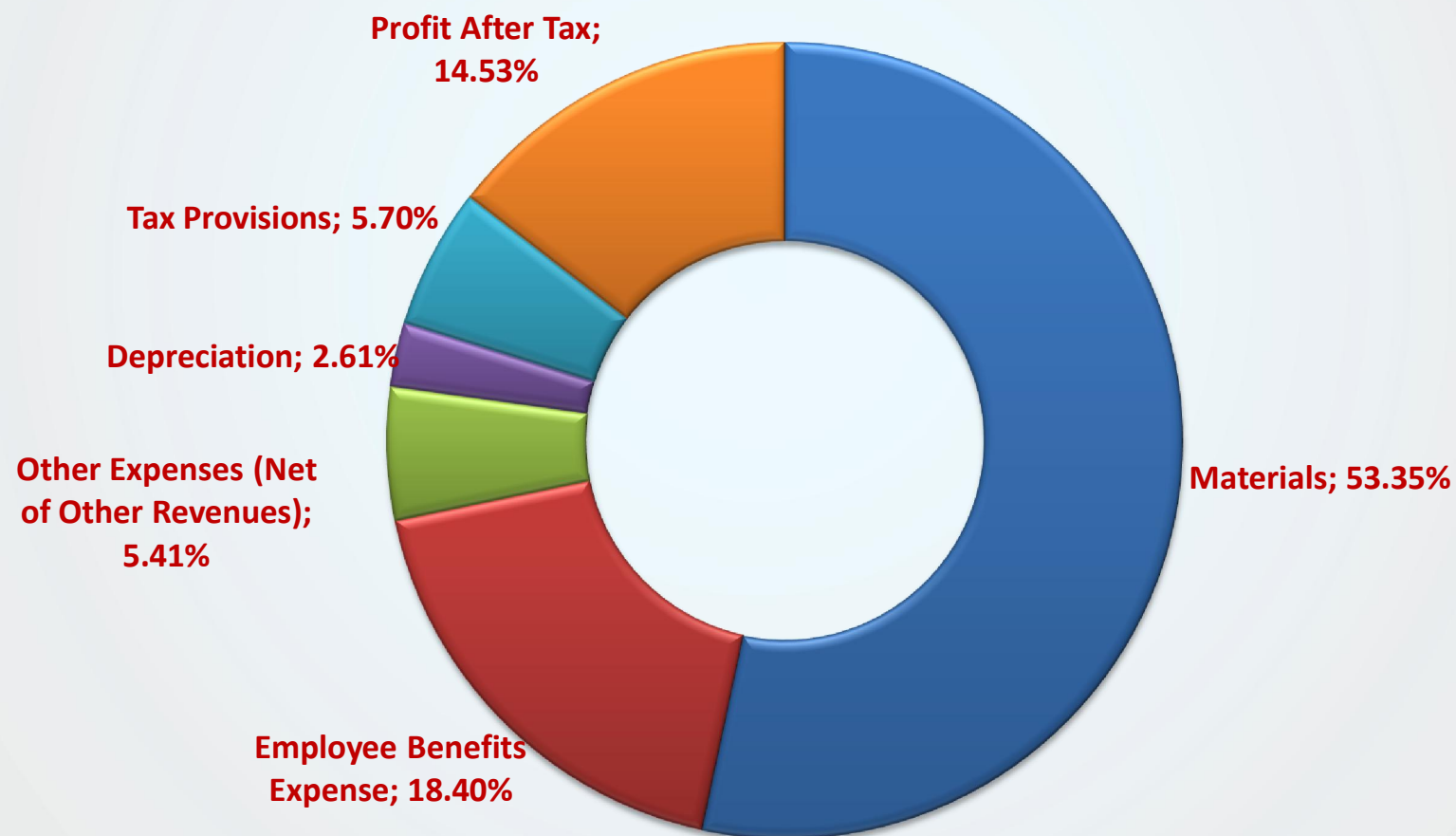
(In %)



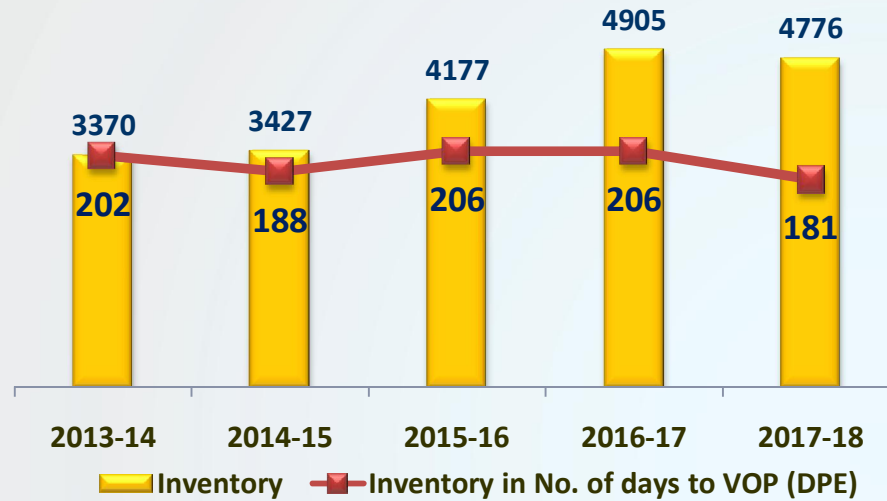
### EMPLOYEE BENEFITS EXPENSE TO TURNOVER (₹ in Crores)



## 2017-18 HOW A RUPEE EARNED IS DISTRIBUTED

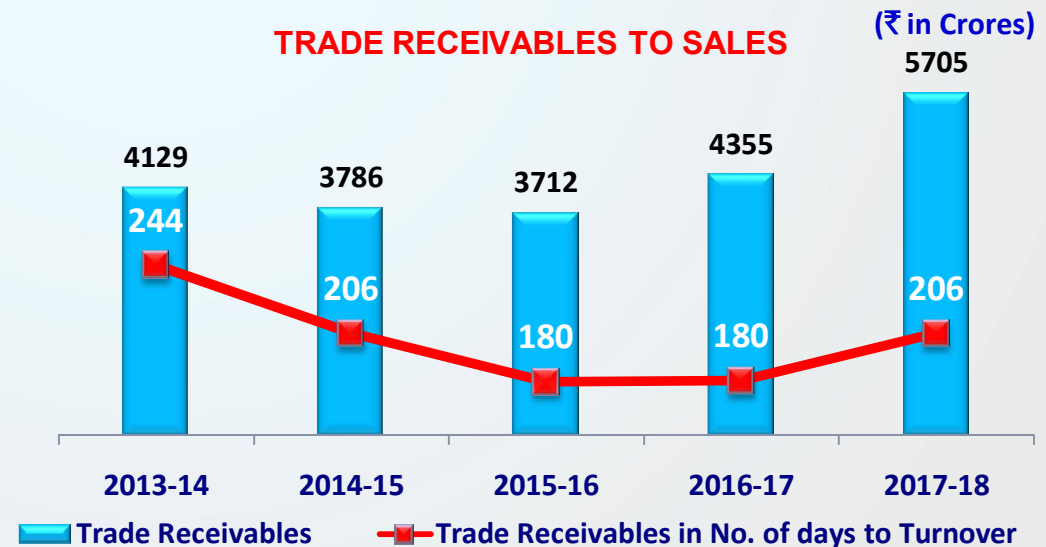


**INVENTORY TO VOP (DPE) (₹ in Crores)**



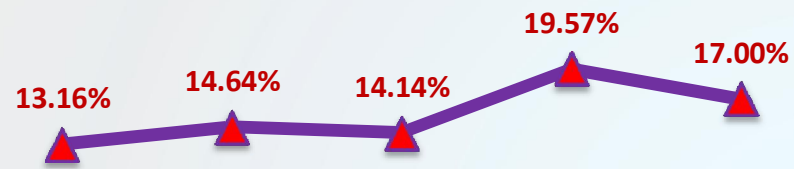
**VoP = Net turnover – Changes in Inventories of FG, WIP & Scrap**

**TRADE RECEIVABLES TO SALES (₹ in Crores)**



### RETURN ON CAPITAL EMPLOYED

(in %)

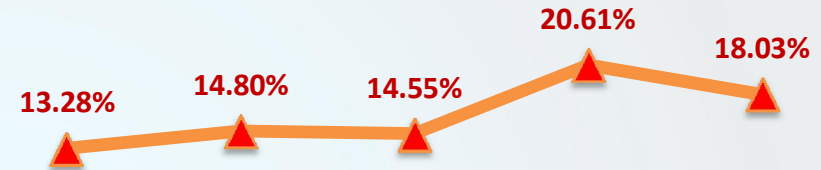


2013-14    2014-15    2015-16    2016-17    2017-18

Return on Capital Employed = PAT / Capital Employed

### RETURN ON EQUITY

(in %)

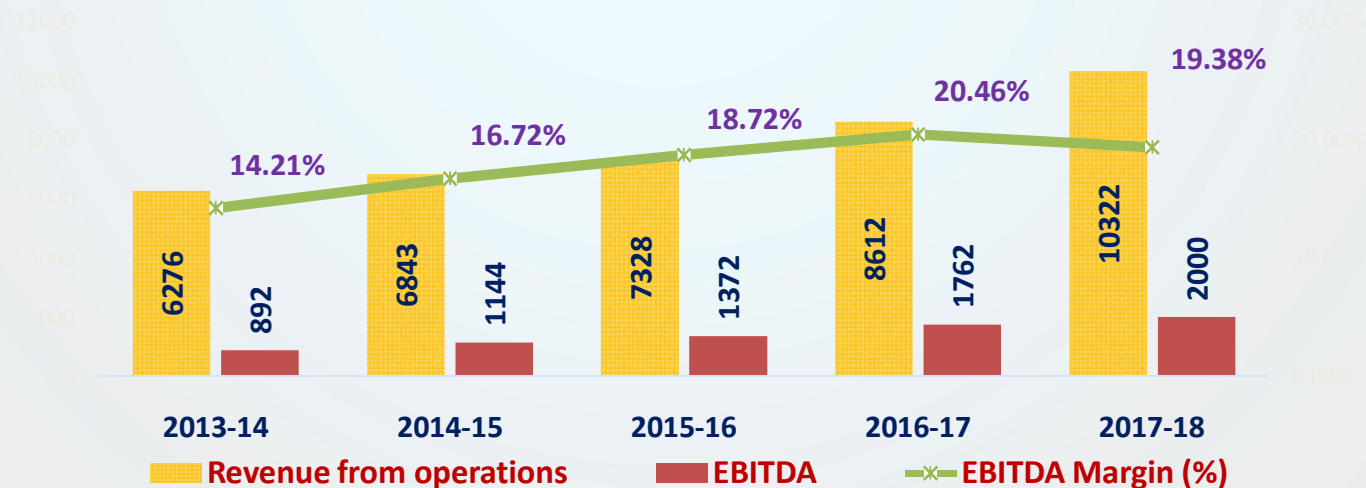


2013-14    2014-15    2015-16    2016-17    2017-18

Return on Equity = Profit After Tax / Net Worth

### EBITDA and EBITDA Margin trend

(₹ In Crore)



Revenue from operations

EBITDA

EBITDA Margin (%)

**EARNING PER SHARE (EPS)** (in ₹)



2013-14 2014-15 2015-16 2016-17 2017-18

EPS normalised for the previous periods due to split in Face Value of Shares

**CASH EARNING PER SHARE** (in ₹)

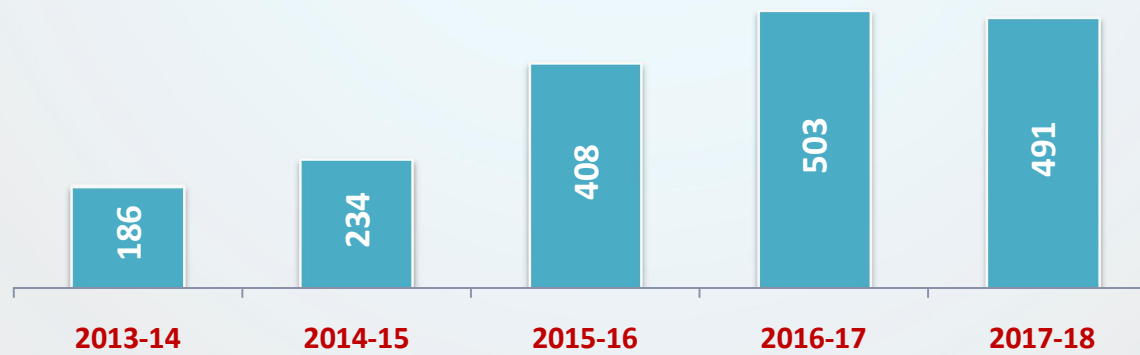


2013-14 2014-15 2015-16 2016-17 2017-18

Cash Earning Per Share = (PAT + Depreciation) / No. of Shares

**DIVIDEND DISTRIBUTION**

(₹ in Crores)

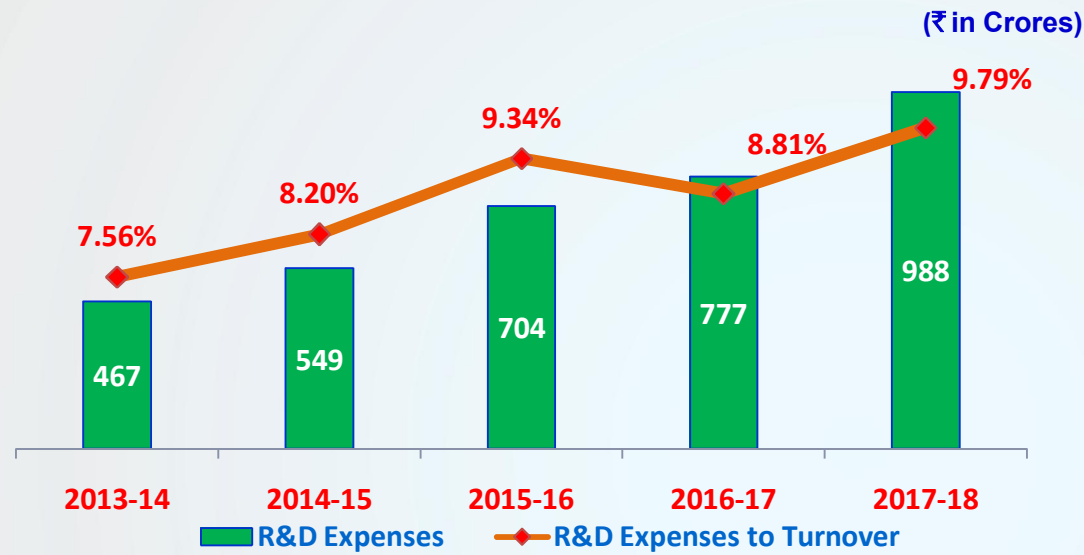


2013-14 2014-15 2015-16 2016-17 2017-18

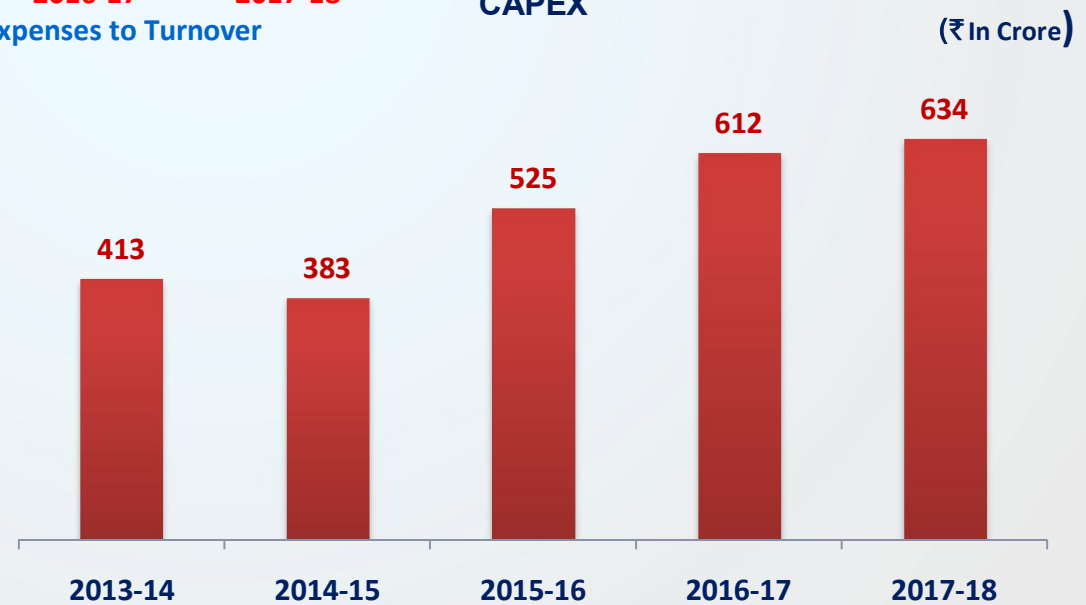
Note: Excludes Dividend Tax



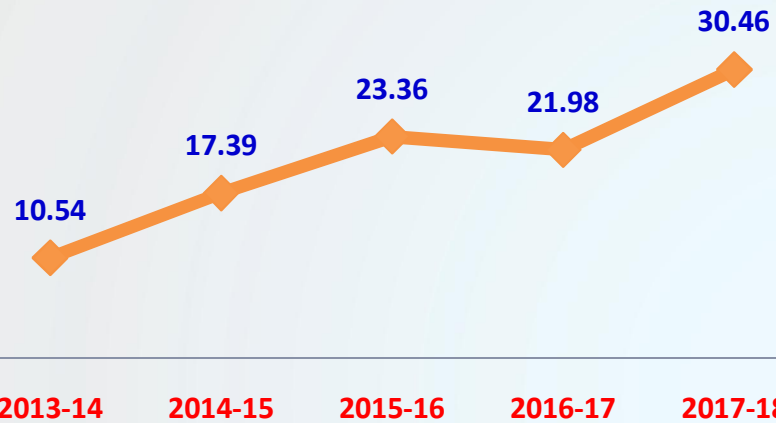
### R&D EXPENSES TO TURNOVER



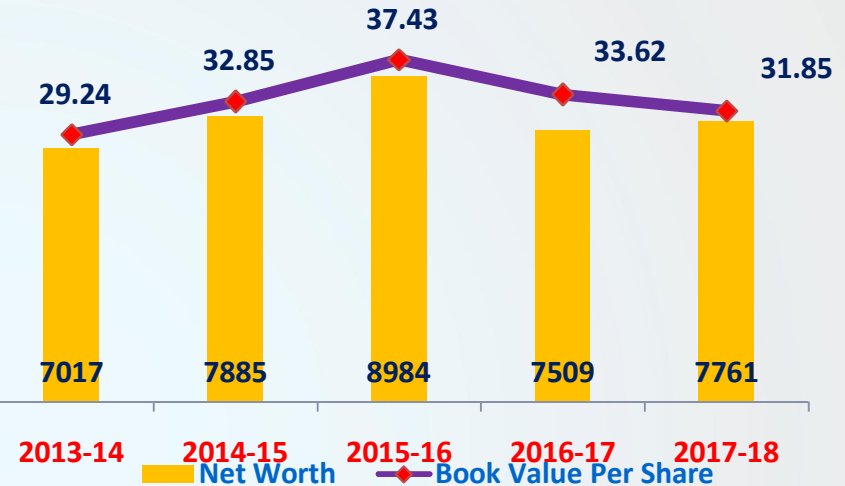
### CAPEX



**PRICE EARNING RATIO (in %)**

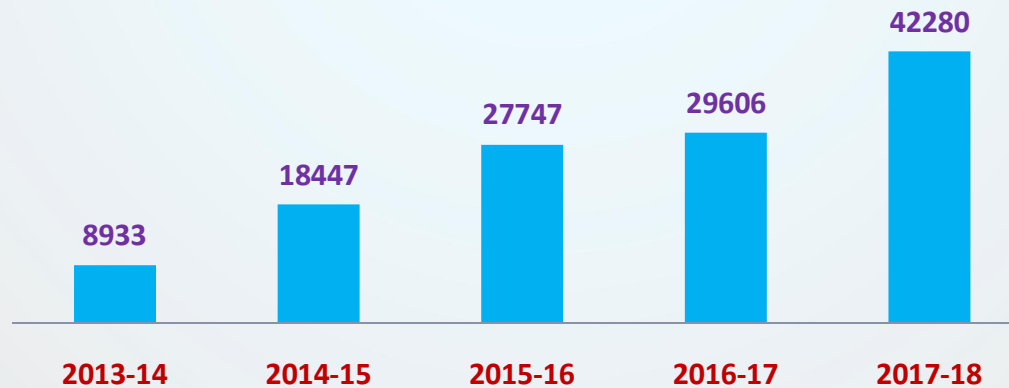


**BOOK VALUE PER SHARE (₹ in Crores)**



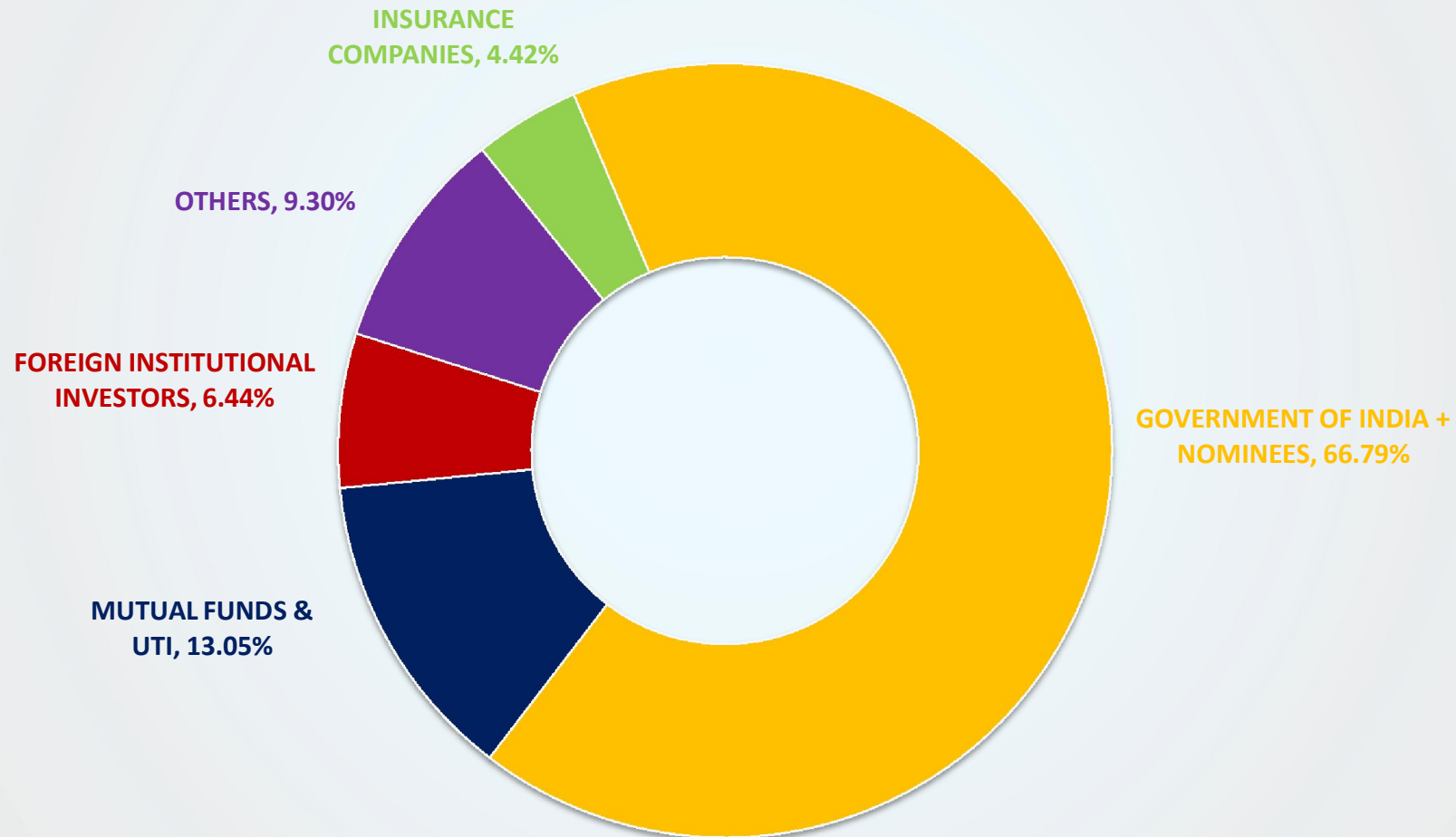
Book Value normalised for the previous periods due to split in Face Value of Shares

**MARKET CAPITALISATION (₹ In Crore)**



Based on the closing rate on 20.09.18 for 2018-19 and average market closing price for previous years of NSE

## SHARE HOLDING PATTERN AS ON 31.03.18



**Others includes: Corporate Bodies (3.37%), NRI's (.31%) , Banks & FI's (.34%)**

# QUARTERLY PERFORMANCE

## Financial Highlights for 1<sup>st</sup> Quarter 2018-19

(₹ in Crores)

Particulars	2018-19	2017-18
<b>Total Income from Operation (Net)</b>	<b>2077.84</b>	<b>1772.83</b>
<b>Net Profit for the period before tax (PBT)</b>	<b>250.21</b>	<b>179.27</b>
<b>Net Profit for the period after tax (PAT)</b>	<b>179.73</b>	<b>125.32</b>
<b>Earning Per Share (EPS in ₹) (Previous year normalised for Issue of Bonus Shares)</b>	<b>0.74</b>	<b>0.51</b>

*Thank You*