

# We are Bosch



**Bosch Limited | Growing with RB GmbH**  
**Dr. Steffen Berns, Managing Director**



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## Agenda

- **Journey of MICO/Bosch Ltd.**
- **Bosch Products & Business Dependency**
- **Technology – Key Success Factor for growth**
- **Way ahead**



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# Journey of MICO/ Bosch Ltd. – Key milestones

1922

1989

1922



Kolkata Office

1951



Establishment of MICO

1953



Bangalore Plant Initiation

1954

Partnership with RB GmbH

1972



SOP at Nasik Plant

1990

2012

1990



SOP at Naganathapura Plant

1993



Mfg of Power Tools

1999



SOP at Jaipur Plant

2006



Mfg of Common Rail System

2008



Mfg of Gasoline Systems

2013

2015

2013



Launch of Energy and Building solutions

2015



SOP at Gangaikondan Plant



SOP at Bidadi Plant

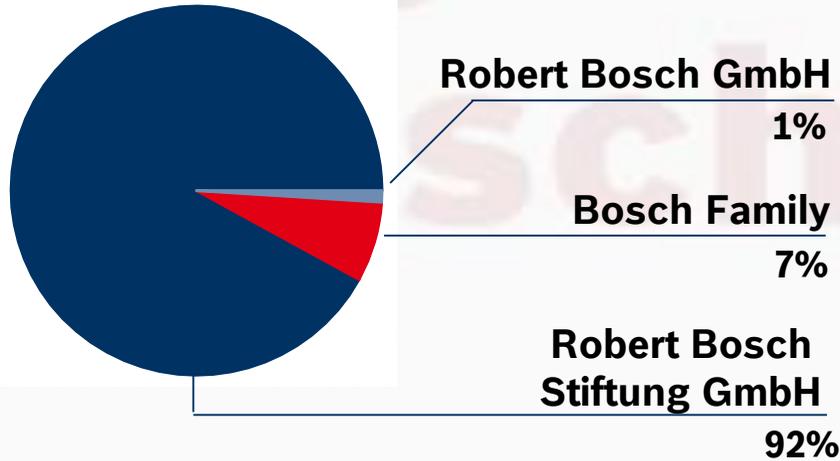
*And the journey continues.....*



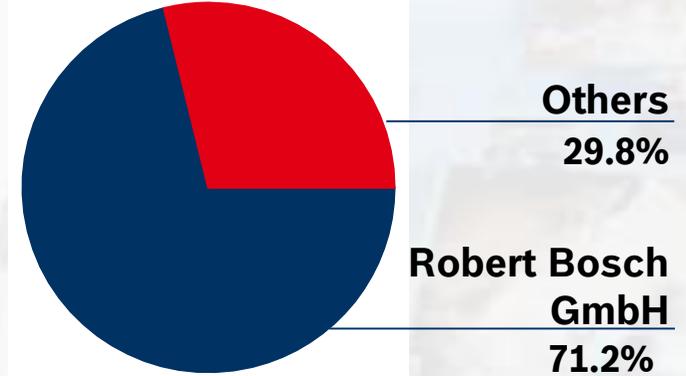
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# Shareholding Pattern Bosch

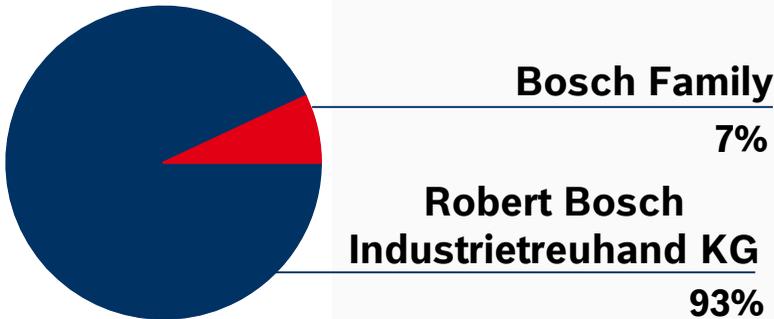
**RB GmbH Shareholding**



**Bosch Ltd. Shareholding**



**RB GmbH Voting Rights**



**Bosch Ltd. Voting Rights  
(same as shareholding)**



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## Product and Business Portfolio

Diesel Systems



Gasoline Systems



Starter Motors & Generators



Automotive Aftermarket



Power Tools



Energy & Building Solutions and Thermo-Technology



Security Technology



Packaging Technology



Drive & Control Technology



Automotive Electronics



Safety & Chassis control systems



Electrical Drives



Software & Engg. Services



ETAS



Home Appliances



Automotive Steering

**Products at Bosch Ltd.**

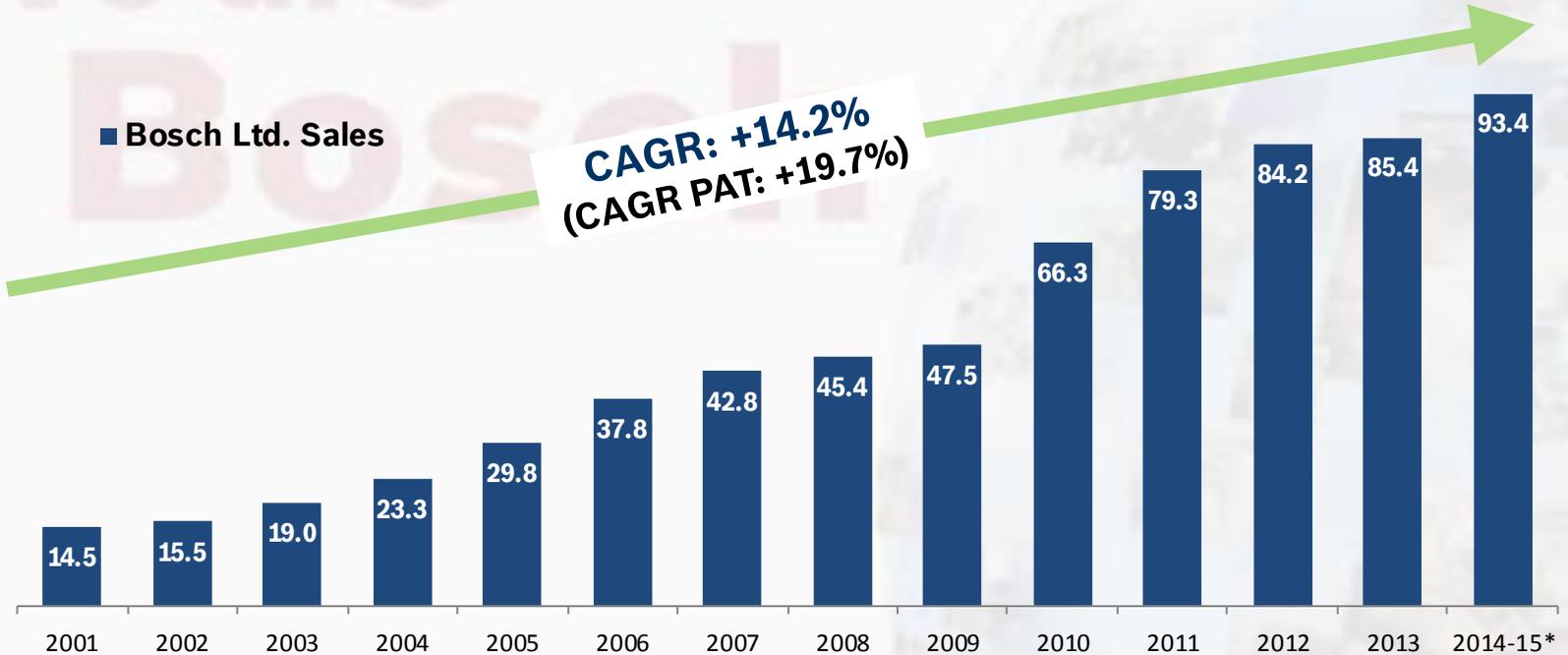
Large part of RB GmbH product & business portfolio available with Bosch Ltd.



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# Sales over the years

Values in b INR



Sustainable profitable growth

\*2014-15 ~ April 2014 to March 2015

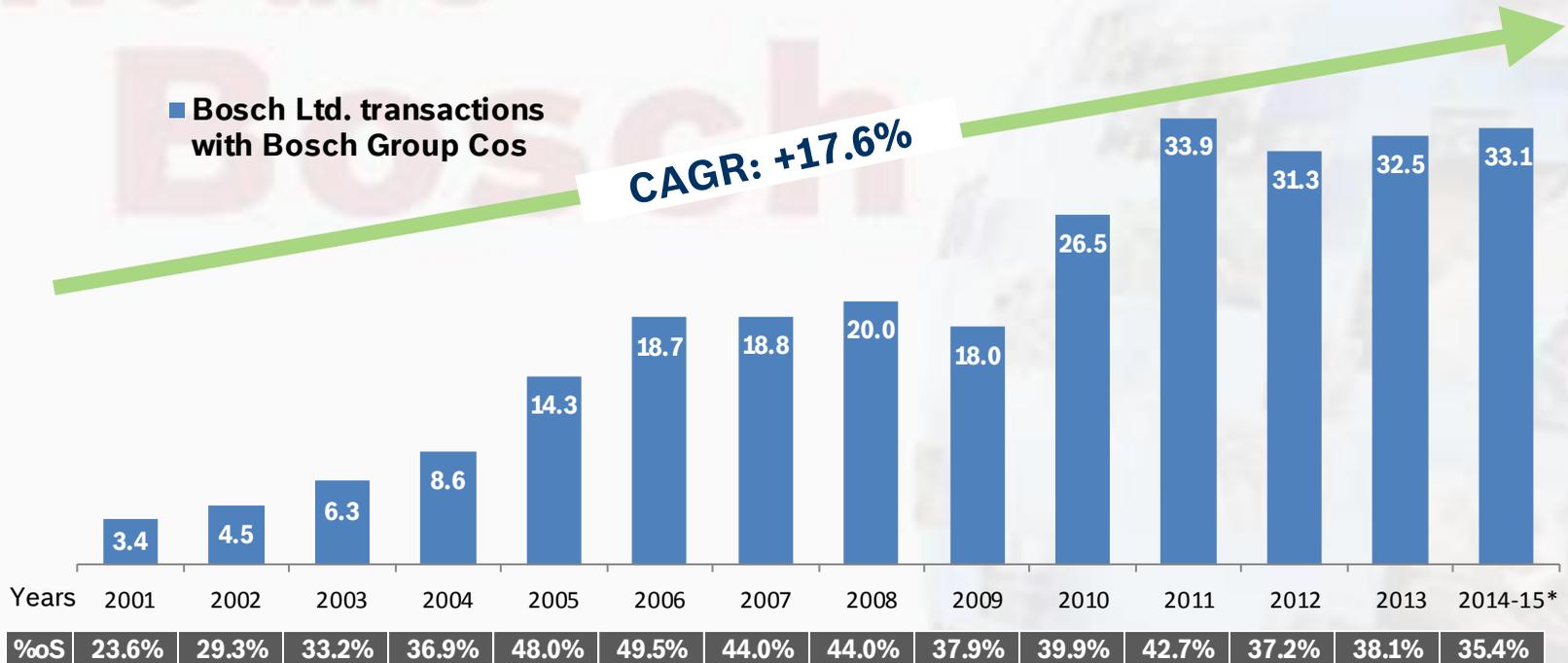


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## Gross transactions over the years

Values in b INR

Gross transactions = Sales + Purchases (goods and capital) + Services + Royalty/Technical Fees



Significant level of transactions drives growth of Bosch Ltd.

\*2014-15 ~ April 2014 to March 2015



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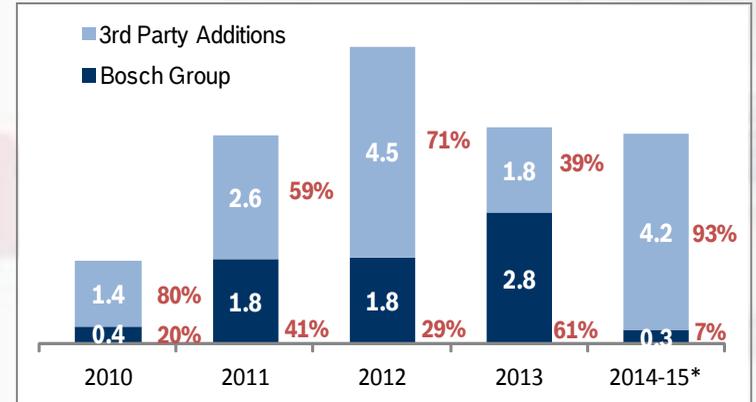
## Key Transactions over last 5 years (2010 to 2014-15)

### Purchase - Goods



### Purchase - Fixed Assets

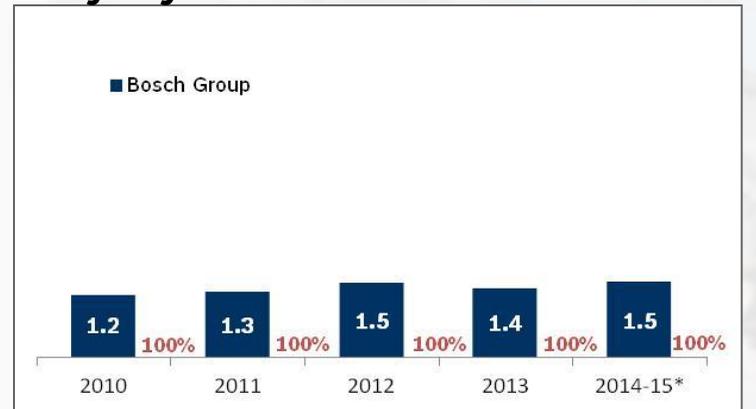
Values in b INR



### Sales



### Royalty & Technical Fee



\*2014-15 ~ April 2014 to March 2015



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## Agenda

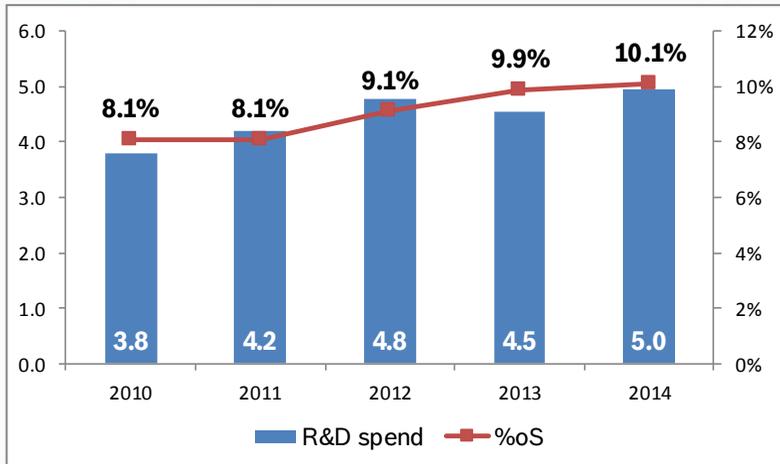
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# Leveraging on Technology

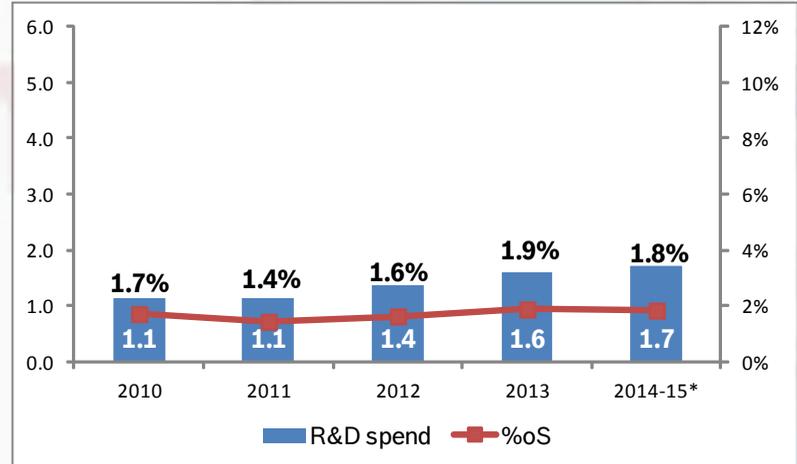
R&D spend – RB GmbH



Values in b EUR

**Avg annual R&D spend: ~9%oS**

R&D spend – Bosch Ltd



Values in b INR

**Avg annual R&D spend: ~2%oS**

**Bosch Ltd leveraging on RB GmbH investment in technology to stay ahead of competition**

\*2014-15 ~ April 2014 to March 2015



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## Leveraging on Technology

### Fuel Economy / CO2

Corporate Avg. Fuel Consumption Standard

### Driving comfort

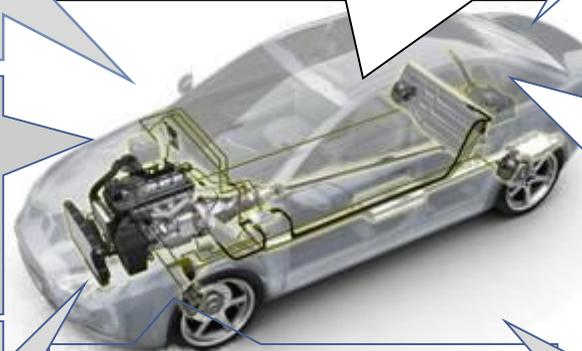
- Easy driving
- Shift- & launch quality
- Noise, vibration, harshness

### Emissions & Diagnosis

- BS5 & IOBD norms
- Worldwide Driving Cycle

### Variants

- Globalization
- Power train & vehicle diversification
- Fuel differences



### Fun to Drive

- Power and low end torque
- Response time (dynamics)

### City Restrictions

- Ban on driving
- Specific traffic lane, parking

### Image & Emotions

- Fuel Economy Labeling
- Willingness-to-pay for green image /emotions

### Costs

- Affordable mobility (price, TCO)
- OEM entry efforts (invest, E&A)

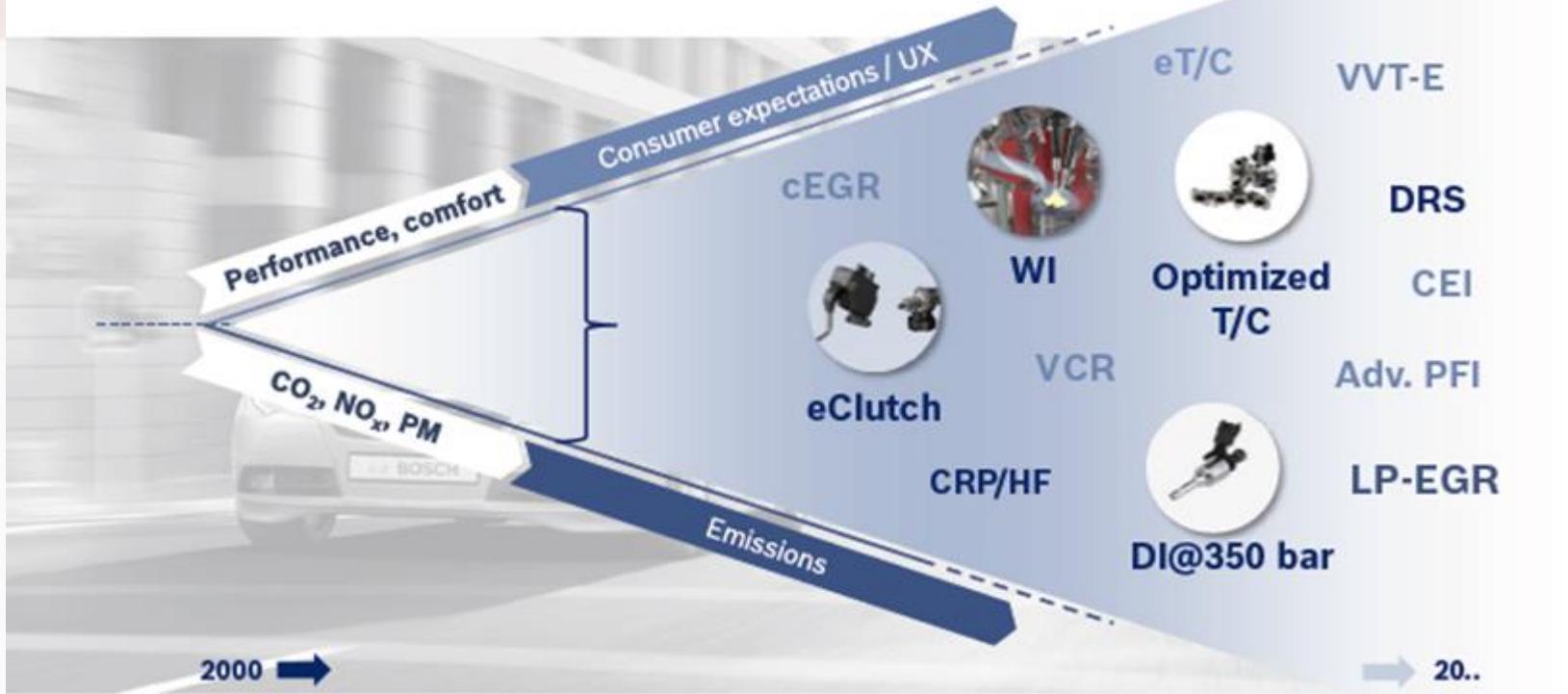
Better fuel economy, better driveability and legislation are key factors for India

TCO: Total cost of ownership, E&A: Engineering and application



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## Engine-related innovations Basis of powertrain



| Adv. PFI = advanced port fuel injection | CEI = controlled electronic ignition | cEGR = cooled exhaust gas recirculation  
 | CRP/HF = common-rail pressure / hydraulic flow | DI = direct injection | DRS = digital rate shaping | eT/C = electric Turbocharger  
 | LP-EGR = low-pressure EGR system | VCR = variable compression ratio | VVT-E = electrical variable valve timing | WI = water injection

**Combustion Engine will remain the basis of efficient mobility in the near future**



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# Megatrends will change the car

Four major trends will shape the mobility of the future



**Urbanization**

**Energy & climate**

**Connectivity**

**Demography**

**Growing**  
importance  
of multi-modal  
mobility

**Stricter**  
CO<sub>2</sub> legislation

Car as  
**active part** of  
the internet

**Mobility needs**  
are growing  
globally –  
for older  
people as well

**Innovative powertrains use resources more efficiently,  
reduce emissions, and enhance driving enjoyment**

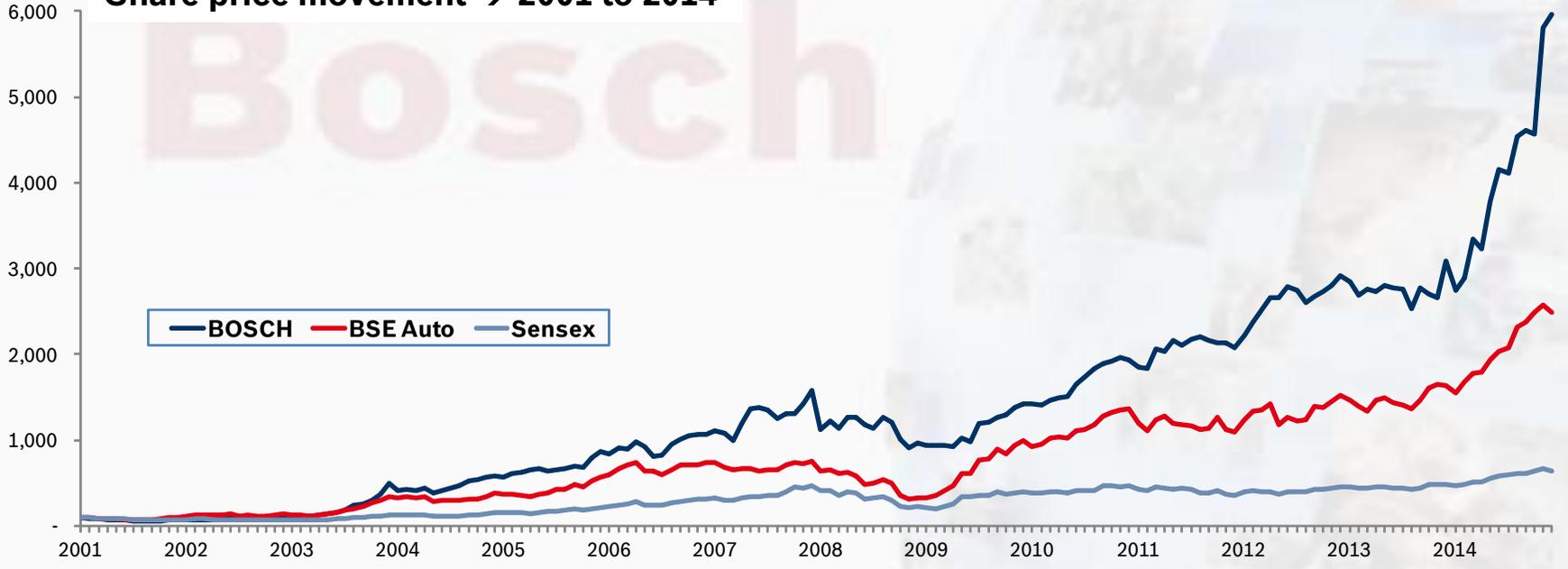
**Bosch Mobility Solutions – moving towards the traffic of the future**



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## Enhancing Shareholder Value

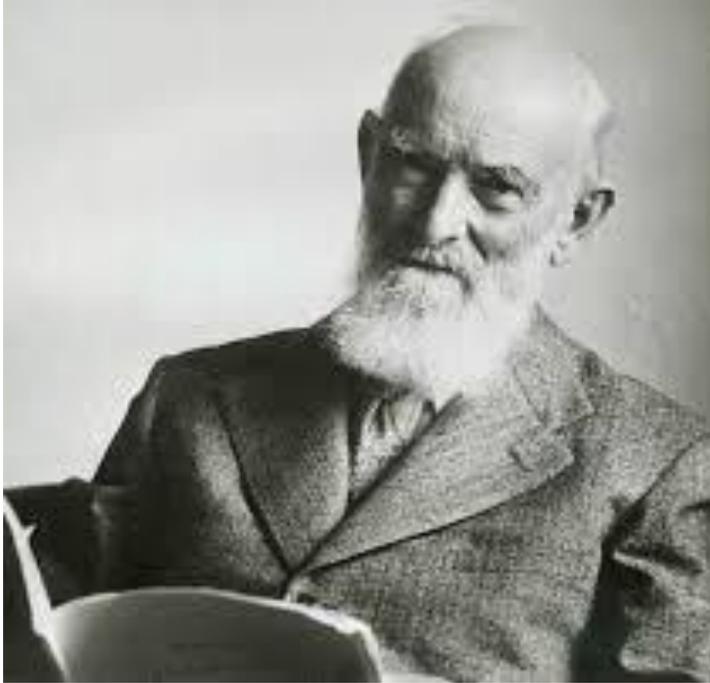
Share price movement → 2001 to 2014



## Direction of Bosch Ltd. - Appreciated by the Stock Market

Note: Indexed at 2001 price as base = 100





Robert Bosch  
1861-1942

*Founding Father of the Bosch Group*

## The 7 Bosch Values

- Future and Result Focus
- Fairness
- Openness and Trust
- Reliability, credibility and legality
- Responsibility
- Cultural Diversity
- Initiative and determination

**“In the long term, an honest and fair approach to doing business will always be the most profitable.”**



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Robert Bosch

1861-1942

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**Open for Discussion....**

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