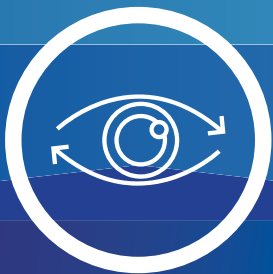


Innovate



Re-vision



Collaborate



## Agility and customer centricity – shaping Bosch Limited's future

Annual Report 2016-17

# Company Information

## Key Managerial Personnel

Dr. Steffen Berns  
*Managing Director (upto 31.12.2016)*

Soumitra Bhattacharya  
*Managing Director & CFO (w.e.f. 01.01.2017)*

Dr. Andreas Wolf  
*Joint Managing Director (w.e.f. 01.01.2017)*

Jan Oliver Röhl  
*Executive Vice-President (Engineering) &  
Regional President (Diesel Systems) &  
Alternate Director (w.e.f. 11.02.2017)*

S. Karthik  
*Joint CFO (w.e.f. 11.02.2017) &  
Company Secretary (upto 10.02.2017)*

R. Vijay  
*Company Secretary (w.e.f. 11.02.2017)*

## Auditors

Price Waterhouse & Co Bangalore LLP  
Firm Registration Number: 007567S/S-200012

## Bankers

State Bank of India  
Canara Bank  
Citibank, N.A.  
Deutsche Bank AG

## Registered Office

P. B. No. 3000  
Hosur Road  
Adugodi  
Bengaluru - 560 030

## Stock Exchanges

(Where the shares of the Company are listed)  
BSE Limited  
Phiroze Jeejeebhoy Towers  
Dalal Street  
Mumbai - 400 001

National Stock Exchange of India Limited  
Exchange Plaza, Bandra-Kurla Complex  
Bandra (E)  
Mumbai - 400 051

## Registrar & Transfer Agent

Integrated Registry Management Services Private  
Limited  
No. 30, Ramana Residency  
4<sup>th</sup> Cross, Sampige Road  
Malleswaram  
Bengaluru - 560 003

## Audit Committee

Renu S. Karnad, Chairperson  
V. K. Viswanathan  
Bernhard Steinruecke  
Prasad Chandran  
Bhaskar Bhat

## Stakeholders' Relationship Committee

Bernhard Steinruecke, Chairman  
V. K. Viswanathan  
Renu S. Karnad  
Prasad Chandran  
Dr. Steffen Berns (upto 31.12.2016)  
Soumitra Bhattacharya (from 01.01.2017)

## Nomination and Remuneration Committee

Bernhard Steinruecke, Chairman  
V. K. Viswanathan  
Prasad Chandran  
Bhaskar Bhat

## Corporate Social Responsibility Committee

Prasad Chandran, Chairman  
Bhaskar Bhat  
Soumitra Bhattacharya  
Dr. Steffen Berns (upto 31.12.2016)  
Dr. Andreas Wolf (from 01.01.2017)

## Share Transfer Committee

Bernhard Steinruecke  
Prasad Chandran  
Bhaskar Bhat  
Dr. Steffen Berns (upto 31.12.2016)  
Soumitra Bhattacharya (from 01.01.2017)

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## About Bosch Group



The Bosch Group is a leading global supplier of technology and services. It employs roughly 390,000 associates worldwide (as of December 31, 2016). The company generated sales of 73.1 billion euros in 2016. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT company, Bosch offers innovative solutions for smart homes, smart cities, connected mobility, and connected manufacturing. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to deliver innovations for a connected life. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life."

The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiaries and regional companies in some 60 countries. Including sales and service

partners, Bosch's global manufacturing and sales network covers nearly every country in the world. The basis for the company's future growth is its innovative strength. At 120 locations across the globe, Bosch employs some 59,000 associates in research and development.

The company was set up in Stuttgart in 1886 by Robert Bosch (1861–1942) as "Workshop for Precision Mechanics and Electrical Engineering." The special ownership structure of Robert Bosch GmbH guarantees the entrepreneurial freedom of the Bosch Group, making it possible for the company to plan over the long term and to undertake significant up-front investments in the safeguarding of its future. Ninety-two percent of the share capital of Robert Bosch GmbH is held by Robert Bosch Stiftung GmbH, a charitable foundation. The majority of voting rights are held by Robert Bosch Industrietreuhand KG, an industrial trust. The entrepreneurial ownership functions are carried out by the trust. The remaining shares are held by the Bosch family and by Robert Bosch GmbH.

## About Bosch Limited



Bosch has been present in India for more than 90 years - first through a representative office in Kolkata (then Calcutta) since 1922, and from 1951 through its subsidiary Bosch Limited (then Motor Industries Company Limited).

Robert Bosch GmbH along with its subsidiary holds 70.49 percent stake in Bosch Limited. The Company is headquartered in Bengaluru. Its key manufacturing facilities are located at Bengaluru, Bidadi, Nashik, Jaipur, Gangaikondan, Oragadam near Chennai and Verna, Goa. Bosch Limited has its presence across sectors such as Mobility Solutions, Industrial Technology, Consumer Goods, and Building and Energy technology. It manufactures and trades products as diverse as diesel and gasoline fuel injection systems, automotive aftermarket products, special purpose machines, packaging machines, electric power tools, security systems, and industrial and consumer energy products and solutions. In India, Bosch Limited is the flagship company of the Bosch Group. It earned revenue of over ₹ 10,500 crores in 2016-17.

The Bosch Group operates in India through twelve companies, viz., Bosch Limited, Bosch Chassis Systems India Private Limited, Bosch Rexroth India Private Limited, Robert Bosch Engineering and Business Solutions Private Limited, Bosch Automotive Electronics India Private Limited, Bosch Electrical Drives India Private Limited, BSH Home Appliances Private Limited, ETAS Automotive India Private Limited, Robert Bosch Automotive Steering India Private Limited, Automotive Services and Solutions Private Limited, Newtech Filters India Private Limited and Mivin Engineering Technologies Private Limited.

Over the years, Bosch in India has grown to include 18 manufacturing facilities and seven development centers. The Group in India employs over 31,000 associates of which close to 18,500 work on areas relating to research and development. In India, Bosch generated consolidated revenue of about ₹ 18,300 crores in 2016 of which ₹ 12,950 crores from third party.

## Board of Directors



**V.K. Viswanathan**  
Chairman,  
Non-Executive  
Non-Independent Director



**Peter Tyroller**  
Non-Executive  
Non-Independent Director



**Bernhard Steinruecke**  
Independent Director



**Renu S. Karnad**  
Independent Director



**Prasad Chandran**  
Independent Director



**Bhaskar Bhat**  
Independent Director



**Soumitra Bhattacharya**  
Managing Director  
*(w.e.f. January 01, 2017)*  
*(Joint Managing Director  
upto December 31, 2016)*



**Dr. Andreas Wolf**  
Joint Managing Director  
*(w.e.f. January 01, 2017)*  
*(Alternate Director to  
Peter Tyroller  
upto December 31, 2016)*



**Jan Oliver Röhl**  
Alternate Director to  
Peter Tyroller  
*(from February 11, 2017)*



**Dr. Steffen Berns**  
Managing Director  
*(upto December 31, 2016)*



## Chairman's Letter

### Dear Shareholders,

The financial year 2016-17 has been an eventful one. We have witnessed several developments, both internationally and in our country concerning geo-political, economic and social sectors. The US Presidential elections' verdict and BREXIT were amongst the two major global developments. Globally, it seemed like a recurring theme to look inwardly and strongly promote national manufacturing and service offerings in order to protect and create jobs locally. This of course, is in strong contrast to the opinions by other international leaders who were stressing importance of global trade and cooperation.

India went through quite a significant transformation with the announcement and implementation of Demonetisation, Re-monetisation, Goods and Service Tax (GST), Insolvency & Bankruptcy Code and Real Estate (Regulation & Development) Act. These reforms will have a long lasting impact on the Indian economy, although the impact might be negative in short run. Against this backdrop India witnessed reasonable GDP growth of 7.1% in 2016-17.

India has also gained some ground with respect to next generation technologies such as Internet of Things (IoT), Artificial Intelligence (AI) and Automation. The adoption and penetration of such technologies will fundamentally alter the way products and services are conceived, designed, manufactured, delivered, consumed and paid for. These advances in technology will undoubtedly throw many challenges whilst creating exciting opportunities. The winner will clearly be the one who is able to anticipate and be ready for such transformational disruption.

As for Bosch Limited, the Company was well prepared for a nation-wide transition to Bharat Stage (BS) IV. The Supreme Court judgement directing the switchover of sales to BS IV effective April 01, 2017 has been a definitive milestone causing some logistical difficulties for the industry. Your company was ready and prepared to offer solutions to all its customers that made this transition smooth and effective. As for BS VI, the Government of India has announced the transition directly from Bharat Stage IV to Bharat Stage VI by 2020. This is for the first-time in the country, perhaps even globally, that a country would be leap frogging from BS IV to BS VI skipping the entire stage of BS V. It is collectively agreed that skipping an entire stage has put the Indian automotive ecosystem under tremendous pressure. However, we at Bosch Limited are preparing ourselves to meet this challenge through appropriate investments in technology and capacity building.

Bosch Limited is committed to growing its business beyond mobility portfolio. In order to achieve the Government's ambitious target of 100 GW of solar power generation in the country by 2022, your Company is committed to play its part. The 4MW ground mounted solar project at New Mangalore Port Trust is amongst the first sea port projects for Bosch in India with more success stories to come. Business units such as, Bosch Energy and Building Solutions (BEBS), Security Technologies and Power Tools, among others have successfully been able to offer products and solutions tailored to cater to requirements of the local market.

The future is full of challenges, yet each challenge offers an opportunity. This has been the driving force behind our fascination for the future and pursuit of innovation to build a better tomorrow. India plays a key role in Bosch's global success and we are committed to identifying new opportunities, and providing solutions that bring customer delight. Our continued investment in facilities across the country will enhance our market reach and complement India's growth story. While doing this, we continue to offer our employees an enriching career and forums to enhance their skill sets and capabilities, making them ready for the future. Being responsible fiscally and environmentally is something which shapes our identity and secures our future.

On behalf of Bosch, I take the opportunity to thank all the shareholders for their sustained support. Over last 10 years, your company has been successful in increasing the shareholder wealth by approximately 21% CAGR in addition to two buyback during the years 2008 and 2016. We are committed to enhancing shareholders value and remain humbled by the trust and support extended by you over these years.

Best regards,

**VK Viswanathan,**  
Chairman - Board of Directors,  
Bosch Limited

# Foreword



## Dear Shareholder,

**Embracing change!** Simple as it seems, globally many respected organizations have failed to keep pace with the changing boundary conditions of their business. In India, Bosch with its over nine decades of existence, has constantly been in a state of evolution. Its composition is akin to an onion bulb. Every layer opens up a new facet about the Group and the environment in which it operates.

Our journey has been a great learning curve. From predominantly being considered as an automobile component manufacturer to opening businesses and ensuring growth in other sectors, such as Energy and Security Solutions, to name a few. Currently, we have made headway from being an intelligent organization to a connected set-up.

For Bosch India, transitioning to a connected era requires a change in mindset. The decision to become a smart and then eventually a connected company is not an option but an imperative for long-term success. To embrace the opportunities put forth by the future, Bosch Limited needs

to first understand the needs of its existing and potential customer.

The thrust on **Customer Centricity** will necessitate our associates and business partners to adopt more flexible approaches. Current business dynamics will require us to be nimble footed, and hence our focus for the current fiscal and in the years to come is **Agility**.

### **Cornerstones of Bosch Limited's success story: Innovate. Re-vision. Collaborate.**

Agility will require us to put on our creative thinking hats and push the envelope to develop innovative solutions that find resonance with the local mass market. For instance, the Lean Connectivity Unit (LCU) helped us inculcate learnings from our customers and OEMs to build the ideal products for them. This approach of developing a solution based on customer demand promises a bright future for us, and I am excited to see where this takes us.





Novelty also depends on our ability to further develop on an existing solution/platform to offer enhanced offerings. Take for example, our security solutions team who re-imagined the possibilities of the existing video surveillance systems. The intelligent 'Bosch Panoramic Camera' does much more than just track and record movement. It collects data based on pattern analysis and then sends it to operators in real-time for security that is close to unbreakable. It has 360-degree views, no blind spots and operates on central servers for images + intelligence.

What lies ahead of Bosch Limited will require the company to combine its strength to offer solutions as 'One Bosch.' As an organization Bosch has moved away from teams working in silos to a matrix structure. Seamless synergy between teams from different domains is what drives us forward and has enabled us to gain expertise over our 90-year old history. Today's customer is more knowledgeable and demanding than ever before, but in most cases, the solution that they demand is only a fraction of the full-extent of what they actually need. At Bosch, we pride ourselves on anticipating such needs before they arise, and meeting them to deliver cost savings, productivity and satisfaction for our customers.

A prime example of cross-collaboration was highlighted when a leading automotive manufacturer wanted to reduce its CO2 emissions by 10 percent. The result was a 57 percent reduction in energy consumption and 8.44 tonnes of annual CO2 reduction. This success story was a combination of efforts which called for the participation of members from our mobility and energy team.

Members from the mobility team offered insights about the customer that were effectively used by the strategy and development team of the energy business. Together, they were able to devise a solution that exceeded the demands of the customer. That's not it, Bosch Limited is also drawing on the capabilities of its sister company- Robert Bosch Engineering and Business Solutions- to offer enhanced solutions.

Such and more are the stories you will find in the latest edition of Bosch Limited's Annual Report for financial year 2016-17.

### **Ahead of the curve with technology and solutions from Bosch Limited**

The past year's business environment was rife with global and Indian transitions, such as Trump's Presidency, 'Brexit', re-monetization and more. As the dust settled on the issue regarding the transition to Bharat Stage VI legislation, we have made key acquisitions which will facilitate our Vision 2020 goal.

The Indian economy experienced a slowdown this financial year, but in the midst of this, Bosch Limited registered a steady growth of 7.6 percent. Even though the transition from BS III to BS IV did have a bearing on the overall market, our growth remained higher than the industry average owing to factors such as future planning and external favorable elements such as healthy monsoon levels in 2016.

Committed to growing the business beyond mobility segment, I am pleased to share that the segment has registered a growth of 16.8 percent. Taking cue from other

countries, India has also given guidance with respect to clean air quality. The country intends to go fully electric by 2030.

Bosch Limited, sees significant growth for electric mobility in the coming years. That said, we also firmly opine that the combustion engine can certainly deliver a lot more towards the realization of cleaner mobility. Diesel offers a CO2 advantage of around 15 percent as compared to petrol, and we need to take advantage of this benefit.

Earlier this year, the central government passed the mandate for all vehicles to changeover from BS III emission norms to BS IV emission standards. Bosch Limited was able to offer its customers the required technology by ramping up its production, inclusive of its supplier base. Looking forward, the company is well prepared to offer its large customer base an array of full line solutions, diesel and gasoline included, as the nation transitions from BS IV to BS VI emission norms by 2020. Bosch Limited is prepared and committed to offer its support during this phase of movement.

The Automotive Aftermarket business unit witnessed a muted growth owing to reasons such as, tough liquidity conditions and the roll-out of 're-monetization'.

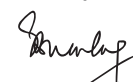
By taking a consolidated approach to customer service and delivering holistic integrated services, we are certain of continuing on this growth trajectory.

Summing up, I am proud to say that Bosch Limited maintained its steady growth and took progressive steps towards achieving its objectives. We started off the year with an unrelenting vision of excellence, and our results showcase how we have stayed true to this vision. This has been made possible because of the commitment and hard work of our associates which set us up for these results.

Looking forward, you, the shareholder, can anticipate the continuation of our steady performance and be rest assured that Bosch Limited is well geared to meet all regulations and industry changes proactively. The next fiscal year holds many promises, with a progressive government at the center we look forward to more reforms, reduced interest rates and improved liquidity after re-monetization. In the current fiscal and beyond, we will take more definitive steps towards being an '**Agile**' and '**Customer Centric**' organization. These measures should help us predict and prepare for the future. We have been, continue to be and will always be ahead of the technology curve. In a future where the world is dynamic and unpredictable, Bosch's technologies and solutions shall offer the comfort of security, reliability and quality. They are the tenets on which we have built our foundation.

With these thoughts I leave you to read the journey Bosch Limited has made over the past year.

Thank you.



**Soumitra Bhattacharya**  
Managing Director, Bosch Limited  
President, Bosch Group India



## Man disrupts, he invents

### Success story - Innovate

It is year 2020 and Mahesh has been biding time and waiting for this moment all his life. He has put together his life savings to buy the first vehicle of his new venture. Over the past few years he has been dissuaded from owning a vehicle on grounds of it not being a viable proposition. And yet, here he is, all set to pick up his new three-wheeler. Once inside his new vehicle, Mahesh heaves a sigh of relief. It was exactly how he had envisaged it to be. His brand-new three-wheeler - fuelled up and ready to go! Kick starting life in his new vehicle, Mahesh is eagerly looking forward to the road ahead and supporting him in this journey is Bosch Limited.

