[01] Bosch to assume full control of electric motor manufacturer EM-motive

[02] Dr. Stefan Hartung, member of the board of management of Robert Bosch GmbH and chairman of the Mobility Solutions business sector, on electromobility at Bosch

[03] Bosch's electromobility strategy at a glance

Robert Bosch GmbH
Postfach 10 60 50
70049 Stuttgart

Media und Public Relations
Leitung: Melita Delic
Presse-Forum:
www.bosch-presse.de

Press release

Bosch to assume full control of electric motor manufacturer EM-motive

January 24, 2019
PI 10856 RB joe/af

- 450,000 electric motors manufactured for hybrids and electric cars; one of Europe's most successful manufacturers
- Takeover gives Bosch opportunity to acquire new customers

Stuttgart, Germany – Bosch is now assuming full control of EM-motive, one of Europe's most successful manufacturers of electric motors. Bosch and Daimler set up EM-motive GmbH as a fifty-fifty joint venture in 2011. Since then, it has manufactured some 450,000 electric motors. "For Bosch, the complete acquisition of EM-motive is the next logical step on the path to becoming the market leader for electromobility. It's a chance to establish an even broader presence in the market," says Dr. Stefan Hartung, member of the board of management of Robert Bosch GmbH and chairman of its Mobility Solutions business sector.

Right from the establishment of the joint venture, Bosch secured an option to acquire the shares. A complete takeover was thus already an option in the joint venture agreement. The change in ownership structure will not have any immediate effect on the roughly 340 EM-motive associates currently working at the locations in Stuttgart and Hildesheim, Germany.

"The company's electric motors already feature in vehicles made by Daimler, Porsche, Fiat, Volvo, Peugeot, and StreetScooter, among others. With this move, Bosch above all intends to acquire new customers in the rapidly growing global market," says Dr. Mathias Pillin, the member of the Powertrain Solutions executive management responsible for the electric-vehicle market segment. The existing company EM-motive GmbH will be transferred to Robert Bosch GmbH. The acquisition of the shares is subject to approval by the antitrust authorities.

Robert Bosch GmbH
Postfach 10 60 50
D-70049 Stuttgart,
Germany

E-mail Joern.Ebberg@de.bosch.com
Phone +49 711 811-26223
Twitter @joernebberg

Corporate Department
Communications & Governmental Affairs
Executive Vice President: Prof. Christof Ehrhart
www.bosch-press.com

The two parties have agreed not to disclose the purchase price or any further details of the acquisition. The EM-motive joint venture was set up to make it economical for the two partners to enter electric-motor manufacturing: given the initially small batch sizes, the two companies were able to share the high capital cost of developing and manufacturing electric motors. As a result, Bosch and Daimler were able to enter electric-motor production early.

The motor is a key component in the electrical powertrain: The more efficiently it works, the less energy it consumes, which not only means greater range, but also significantly lower operating costs. Even now, the electromobility business is growing rapidly, and by the start of the next decade at the latest, it will have developed into a mass market.

Press photos: #1826694, #1826695, #1826697

Contact person for press inquiries:
Jörn Ebberg,
Phone: +49 711 811-26223
Twitter: @joernebberg

The Bosch Group is a leading global supplier of technology and services. It employs roughly 402,000 associates worldwide (as of December 31, 2017). The company generated sales of 78.1 billion euros in 2017. 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 subsidiary and regional companies in 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company's future growth is its innovative strength. At 125 locations across the globe, Bosch employs some 64,500 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 upfront 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.

Additional information is available online at www.bosch.com, www.iot.bosch.com, www.bosch-press.com, www.twitter.com/BoschPresse.

Press release
Bosch Compact

Dr. Stefan Hartung, member of the board of management of Robert Bosch GmbH and chairman of the Mobility Solutions business sector, on electromobility at Bosch

January 24, 2019
PI 10859 BBM joe/af

Strategy:
"We want to be the go-to partner for electric driving, and to be the leader in the mass market for electromobility that will emerge after 2020."

"Electromobility has a home: Bosch."

"With its economic and technological clout, Bosch is driving forward the breakthrough in electromobility."

"Our electromobility strategy goes far beyond the powertrain. Bosch's expertise covers the entire electromobility ecosystem – from proven components for electrified applications to digital connection with the recharging infrastructure."

"Systems expertise, energy efficiency, and standardization are the three pillars of our electromobility strategy."

The acquisition of EM-motive GmbH:
"For Bosch, the complete acquisition of EM-motive is the next logical step on the path to becoming the market leader for electromobility. It's a chance to establish an even broader presence in the market."

"Having acquired EM-motive, we will in the future cover the entire value stream and be able to offer electric motors from a single source."

The market:
"The global market for electromobility will grow rapidly over the next few years. We forecast that around 20 percent of all new vehicles will be hybrids or electric cars by 2025. By 2030, that figure will be more than 25 percent."

Robert Bosch GmbH
Postfach 10 60 50
D-70049 Stuttgart

E-mail joern.ebberg@de.bosch.com
Phone +49 711 811-26223
Twitter @joernebberg

Corporate Department
Communications & Governmental Affairs
Executive Vice President: Prof. Christof Ehrhart
www.bosch-press.com

“Bosch electrical powertrain components already feature in over a million vehicles around the world.”

“No other company is working as broadly on electromobility as Bosch – from bicycles to trucks.”

“Bosch already has a leading position in China, the world’s largest market for electromobility. In Europe, Bosch supplies the powertrain system for the continent’s largest electric-vehicle fleet, the German Post Office’s StreetScooters.

“There’s a saying in our company that there’s no car on the planet without a bit of Bosch in it. In the future, this will be extended to include electric cars. Wherever you look under the hood – be it in Asia, Europe, or North America – you’ll always find the Bosch armature in a circle.”

The company’s product portfolio:
“Our portfolio stretches from power electronics, to 48-volt mild hybrid batteries, to electric motors and electric axle systems.”

“Bosch’s e-axle is the advent of the all-in-one principle in the powertrain. For automakers, it makes electrical powertrains more efficient and affordable. This will allow the market penetration of electromobility to continue to gain speed. The e-axle is key to making Bosch the go-to partner for electromobility.”

“We have to understand battery cells technically, not necessarily make them ourselves. Cell production is not decisive for our success.”

Customers:
“Bosch will play a leading part in shaping the dynamic transition to electric driving. In this transformation process, we will be there to support our customers with knowledge and technology.”

“Our customers benefit just as much from this market experience as from our global research and development network. The latter allows Bosch to carry out projects flexibly and close to its customers, whether in Asia, Europe, or North America.”

Related link:

Curriculum vitae of Dr. Stefan Hartung

Contact person for press inquiries:

Jörn Ebberg

Phone: +49 711 811-26223

Twitter: @joernebberg

Mobility Solutions is the largest Bosch Group business sector. In 2017, its sales came to 47.4 billion euros, or 61 percent of total group sales. This makes the Bosch Group one of the leading automotive suppliers. The Mobility Solutions business sector pursues a vision of mobility that is accident-free, emissions-free, and stress-free, and combines the group's expertise in the domains of automation, electrification, and connectivity. For its customers, the outcome is integrated mobility solutions. The business sector's main areas of activity are injection technology and powertrain peripherals for internal-combustion engines, diverse solutions for powertrain electrification, vehicle safety systems, driver-assistance and automated functions, technology for user-friendly infotainment as well as vehicle-to-vehicle and vehicle-to-infrastructure communication, repair-shop concepts, and technology and services for the automotive aftermarket. Bosch is synonymous with important automotive innovations, such as electronic engine management, the ESP anti-skid system, and common-rail diesel technology.

The Bosch Group is a leading global supplier of technology and services. It employs roughly 402,000 associates worldwide (as of December 31, 2017). The company generated sales of 78.1 billion euros in 2017. 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 subsidiary and regional companies in 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company's future growth is its innovative strength. At 125 locations across the globe, Bosch employs some 64,500 associates in research and development.

To learn more, please visit www.bosch.com, iot.bosch.com, www.bosch-press.com, twitter.com/BoschPresse.

Press release
Bosch compact

Bosch's electromobility strategy at a glance

January, 2019
PI 10111 BBM joe/af

Pillar #1: Systems expertise is a USP

Bosch believes the key to leading the electromobility market lies in its comprehensive systems approach. When it comes to components, the company relies on its comprehensive systems expertise. "Our customers benefit from our expertise in intelligently linking all the components in the powertrain. This broad-based systems expertise is our USP. It is a source of huge business potential for Bosch," says Dr. Mathias Pillin, who is responsible for electromobility activities at Bosch. The Bosch portfolio includes key components of the electrical powertrain, such as the electric motor, power electronics, and battery systems. The production of a new 48-volt battery for hybrid vehicles started at the end of 2018.

Pillar #2: Energy efficiency as the prime development objective

To further increase electric vehicles' range, Bosch has been working for many years to improve the energy efficiency of individual components and the system as a whole. "Our electric motors and electric axle drive are already the benchmark for energy efficiency. In the end, affordable range is the key to helping electromobility achieve a breakthrough. Achieving this depends on smart interaction among all the components of the powertrain," Pillin says. The reasoning behind this is the less electricity the motor and other components consume, the long the battery charge will last, and the greater the range. This is an area in which the company's engineers are working on new generations of electric motors, inverters, and battery systems. Modified thermal management systems can increase electric cars' range by up to 20 percent. And special battery-management systems allow the best possible management of batteries. In this way, the efficiency of individual cells can be further increased.

Pillar #3: Standardization means speed

Bosch is certain that the electromobility market will grow rapidly in the years ahead. The company's latest forecasts assume that some 20 percent of all newly registered passenger cars and light duty vehicles will be plug-in hybrids or electric cars by 2025. By 2030, it will be more than 25 percent. About 70 percent of vehicles will then still be driven by combustion engines, some of them with

Robert Bosch GmbH
Postfach 10 60 50
D-70049 Stuttgart
Germany

E-mail joern.ebberg@de.bosch.com
Phone +49 711 811-26223
Twitter @joernebberg

Corporate Department
Communications & Governmental Affairs
Executive Vice President: Prof. Christof Ehrhart
www.bosch-press.com

electrical support from 48-volt systems. It is in this volatile environment that today's diverse providers of electromobility operate – from classic OEMs via auto start-ups to companies from completely different industries. Bosch is capable of meeting diverse development times and requirements. Bosch believes one main driver will be the standardization of components and systems. For the company, this is the basis for making mass-market electromobility scalable and affordable. Bosch is currently demonstrating this with its eAxle, the next-generation electrical powertrain. Bosch sells this electric axle drive to a wide range of customers – to established automakers and start-ups alike. Here, Bosch customers also benefit from the company's global research and engineering network. The latter allows the company to carry out projects flexibly and close to its customers, whether in China, Europe, or North America.

Bosch expertise relates to the entire electromobility ecosystem

In the electromobility business, no other automotive supplier is as broadly diversified as Bosch. Bosch electrical powertrain components already feature in more than one million vehicles around the world. The supplier of technology and services has carried out more than 30 production-related projects together with established automakers and start-ups around the world. It is the market leader in China, the world's biggest and fastest-growing electric-vehicle market. Bosch technology can be found in practically every class of vehicle: the supplier of technology and services develops and manufactures components for electric bicycles, scooters, passenger cars, and commercial vehicles. Bosch covers the entire electromobility ecosystem. Bosch is partnering with various automakers to give drivers of electric vehicles access to some 40,000 charge spots in eight European countries – with the help of charging apps, for example.

Contact person for press inquiries:
Jörn Ebberg
phone: +49 711 811-26223
Twitter: @joernebberg

Mobility Solutions is the largest Bosch Group business sector. In 2017, its sales came to 47.4 billion euros, or 61 percent of total group sales. This makes the Bosch Group one of the leading automotive suppliers. The Mobility Solutions business sector pursues a vision of mobility that is accident-free, emissions-free, and stress-free, and combines the group's expertise in the domains of automation, electrification, and connectivity. For its customers, the outcome is integrated mobility solutions. The business sector's main areas of activity are injection technology and powertrain peripherals for internal-combustion engines, diverse solutions for powertrain electrification, vehicle safety systems, driver-assistance and automated functions, technology for user-friendly infotainment as well as vehicle-to-vehicle and vehicle-to-infrastructure communication, repair-shop concepts, and technology and services for the automotive aftermarket. Bosch is synonymous with important automotive innovations, such as electronic engine management, the ESP anti-skid system, and common-rail diesel technology.

The Bosch Group is a leading global supplier of technology and services. It employs roughly 402,000 associates worldwide (as of December 31, 2017). The company generated sales of 78.1 billion euros in 2017. 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 subsidiary and regional companies in 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company's future growth is its innovative strength. At 125 locations across the globe, Bosch employs some 64,500 associates in research and development.

To learn more, please visit www.bosch.com, iot.bosch.com, www.bosch-press.com, twitter.com/BoschPresse.