



Automotive Engineering Exposition 2017 **Bosch showcases innovative solutions for connected mobility**

2017年5月19日
C/CCR-JP-2017-008

Bosch booth: Hall D #309

- ▶ New platform for “over the air” update, Automotive Feature Development Platform and Feature Store
- ▶ CES Innovation Award winning connected solutions for motorcycle
- ▶ Many innovative solutions for electrified, automated and connected mobility to be presented

Tokyo – Bosch Corporation, the Japanese subsidiary of Robert Bosch GmbH, a leading company providing innovative technologies and services on a global scale, will participate in Automotive Engineering Exposition 2017 Yokohama, to be held for three days from May 24 (Wed) to May 26 (Fri). Bosch will exhibit its wide ranging solutions for shaping mobility, today and in the future.

Japan premier: New platform for FOTA (Firmware update over the air) and SOTA (Software update over the air)

Connected functions and especially highly automated driving call for consistently reliable functioning throughout the vehicle’s entire life cycle. This requires software updates that can be carried out via the cloud. Bosch offers the appropriate communication control units and the central gateway computer, while ETAS and ESCRYPT (both parts of the Bosch Group) provide the necessary transmission and encryption technologies. These ensure functional safety and data security. Furthermore Bosch exploits corresponding development processes and methods for “over the air” updates. Today the features which are available for vehicles and the behavior of these vehicles are defined during the development phase. Later on any functionality or application update, if at all, can only be done in the service workshop or by specialist on site. In addition the processes and tooling to perform an update often is depending on the target control unit. To change this situation, Bosch develops an open ecosystem,

Automotive Feature Development Platform and Feature Store, starting from the development environment in the cloud up to the global management, licensing and distribution of software applications. This allows to introduce customer-specific requirements in the vehicle easily, on short notice and at any time worldwide. FOTA as well as adding dedicated SOTA is supported. It enables customers to create new services, to reduce the total cost of ownership and to support the vehicles under second or third ownership. The company presents this new platform at the exposition for the first time in Japan.

Japan premier: Bosch connected solutions enables more safety, comfort and fun for motorcycles

Integrated Connectivity Cluster: The rider information system, known as the Integrated Connectivity Cluster, combines all the motorcycle's instrumentation on a single display and makes it possible for riders to use their smartphone. The advantage of this is that the system automatically adapts the display to current usage. That means the rider is shown only the information needed at that particular moment. This in turn reduces distraction, thus enhancing safety. So, for example, at high speeds, all the display information elements with the exception of the speed indicator and warning notifications are gradually hidden. The display is easy to read in all weather conditions. Even in direct sunlight, the colors are distinct and the contrast is very high; and in the dark the display does not dazzle the rider. What is more, it endures rain. This innovative system was honoured to with the CES Innovation Award in the In-Vehicle Audio/Video category.

mySPIN: Already available for cars since 2014, mySPIN has now been adapted for two-wheelers, providing the perfect solution for sharing information such as traffic conditions or route preferences with other bikers. In the system development stage, Bosch paid special attention to road safety and the avoidance of rider distraction. mySPIN pares down phone apps to show only the most essential information on the motorcycle's display. Once a smartphone has been connected to the motorcycle, the bike's display and handlebar control devices can be used to access data on the phone, including contacts, calendars, and favorite apps. Thanks to direct access to the contacts stored on the phone, inter-app communication facilitates tasks such as entering navigation destinations. As a cross-platform solution, mySPIN is fully compatible with both Android and iOS smartphones. mySPIN was premiered at EICAM 2016, the world's largest motorcycle show.

List of the technology and services presented at the Automotive Engineering Exposition 2017

Powertrain and electrified mobility

- Common rail and exhaust gas after treatment system
- 48V Volt hybrid powertrain solutions
- High-voltage electrification portfolio
- The reinvention of the CVT pushbelt: Single Loopset Belt
- Components for Thermal management systems

Automated mobility

- Integrated Safety Systems
- Redundant brake system
- Electric Power Steering Servolectric® - EPSapa (axis parallel type) and EPSc (column type)
- Redundant motor and ECU for electric power steering

Connected mobility

- Automotive Feature Development Platform and Feature Store
- Freely Programmable Cluster
- Central gateway and firmware-update over the air (FOTA)
- Connected parking

Motorcycle

- Integrated Connectivity Cluster
- mySPIN for motorcycle
- Motorcycle Stability Control
- Cost-effective solution for small two-wheeler segments in emerging markets

Press photos: 1-RBJP-001

Contact persons for press inquiries:

Naomi Funada

Yuka Matsumoto

phone : +81-3-5485-3393

Bosch in Japan is currently represented in the country by Bosch Corporation, Bosch Rexroth Corporation, Bosch Packaging Technology K.K. and other affiliates. Bosch Corporation is responsible for the development, manufacturing, sales and services of automotive original equipment, automotive aftermarket products and power tools. Bosch Engineering K.K. provides engineering services, such as development and application for automotive systems. ETAS K.K. develops and provides engineering of development support tools of electrical control units. Bosch Rexroth Corporation develops and manufactures hydraulics, FA module components and other systems which contribute to industrial technologies. Bosch Packaging Technology K.K. provides processing, packaging and inspection technology. Bosch Security Systems Ltd. provides security and communication products and solutions to help secure the

safety of lives, buildings and properties, and is also a supplier of professional sound systems. In 2015, Bosch Japan achieved sales to third party of some 270 billion yen and employed approximately 6,600 associates.

Additional information is available online at

<http://www.bosch.co.jp> Bosch Japan Website (Japanese)

<https://twitter.com/BoschJapan> Bosch Japan Twitter (Japanese)

<https://www.facebook.com/bosch.co.jp> Bosch Japan facebook (Japanese and English)

<https://www.youtube.com/boschjp> Bosch Japan Youtube (Japanese)

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.

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