Press release



Growth market: mobility as a service Bosch establishes division for connected mobility services

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- ▶ Bosch CEO Denner: "Connectivity is fundamentally changing how we get from A to B."
- ▶ New ridesharing business: Bosch acquires U.S. start-up SPLT
- ► New city: Madrid welcomes e-scooter sharing
- ▶ World-first: system!e new services make electromobility suitable for everyday use

Berlin and Stuttgart, Germany – Bosch continues to drive forward its transformation into a provider of mobility services. Its new Connected Mobility Solutions division will bring together over 600 associates to develop and sell digital mobility services. These include vehicle sharing, ridesharing, and connectivity-based services for car drivers. "Connectivity will fundamentally change how we get from A to B, and in the process it will help to solve today's traffic problems. We are using it to realize our vision of emissions-free, stressfree, and accident-free mobility," said Dr. Volkmar Denner, chairman of the Bosch board of management, at the Bosch ConnectedWorld 2018 IoT conference in Berlin. Connectivity offers tremendous business potential. By 2025, there will be more than 470 million connected vehicles on the world's roads (source: PwC). Just four years from now, the market for mobility services and associated digital services will be worth 140 billion euros (source: PwC). "Connected driving is a growth area for Bosch. Bosch aims for significant doubledigit growth with the solutions it offers," Denner said. The plan is for the new division to further extend the existing service portfolio. For instance, mobility services from Bosch send alerts about wrong-way drivers and turn smartphones into car keys. The latest of these is the ridesharing service offered by U.S. startup Splitting Fares Inc. (SPLT). Denner also presented system!e in Berlin. Connected services for electromobility are set to further increase the suitability of electric driving for the mass market.

Bosch enters the ridesharing business

One growth market in the field of connected mobility is ridesharing, which encompasses online services and apps for carpools as well as for arranging driving services and taxis. By 2022, the number of ridesharing users worldwide is set to rise by 60 percent to 685 million (source: Statista). To date, most such services have been directed at people who happen to be traveling in the same direction or who want to book a trip at the last minute; companies and commuters have been seen as less of a priority. This is precisely where SPLT comes in. Recently acquired by Bosch, this U.S. start-up developed a platform that companies, universities, or municipal authorities can use to arrange ridesharing for their staff. This B2B approach is aimed directly at commuters: the SPLT app brings together people who want to share a ride to the same workplace or place of study. One advantage of this is that rides are shared by colleagues, which means users never have to get in the car with complete strangers. Within seconds, an algorithm locates a suitable rideshare, calculates the fastest route through traffic, and thus assumes what used to be the time-consuming task of coordinating the departure point, departure time, best route, and passengers. Sharing a ride is good for the nerves, for the wallet, and for the environment. Companies can also play a role in reducing traffic volume. "Connectivity is a way for us to rethink not just the car but the whole way we use modes of transport," Denner said.

Digital services for electric vehicles

Bosch subsidiary COUP has provided e-scooters for rent in Berlin since 2016. After introducing e-scooter sharing to Paris last year, the service will launch in Madrid this year. This will bring the total number of e-scooters to 3,500. "Digital services will give electric driving a boost," Denner said. At the IoT conference, the Bosch CEO presented system!e, a comprehensive system of connected electrified powertrain components and new service solutions for electric cars. To this end, Bosch has connected the electric drive to the Bosch Automotive Cloud Suite. The company is developing web-based services that rely on this interaction. In the future, intelligent electric cars will know precisely when their power will run out, but also where they can find their next charge.

Eliminating range anxiety: Services that encourage everyday use

For many car buyers, the worry that an electric car might leave them stranded is a deal-breaker. It is precisely this problem that system!e is designed to tackle. Because the electric drive is connected to the cloud, the system can produce an "extended range forecast." An algorithm factors in vehicle data such as current battery charge, energy consumption of heating or air conditioning, and the driver's driving style, as well as information from the vehicle's surroundings. This includes the current traffic situation and topographical data for the route ahead.

Based on this information, the system can reliably calculate the vehicle's precise range. For longer journeys in an electric car, the extended range forecast is supplemented by the "charging assistant." This service knows where all the charge spots are on a given journey, say from Munich to Hamburg, so it can plan ahead for necessary charging stops; it also manages the payment process. Thanks to additional information about for example restaurants, cafés, and shopping options, drivers can make the most of the charging time and relax. A third service manages vehicle charging in smart homes, helping to optimize how they use energy. It integrates the electric car into the smart home's electricity grid, meaning the car's battery supplements the stationary storage device for the house's photovoltaic system. During the day, the car absorbs excess solar power and feeds it back at night as necessary. "For Bosch, mobility goes beyond the car. Our breadth of technology expertise in numerous fields puts us in an unparalleled position to develop and operate cross-application ecosystems," Denner said.

4,000 participants, 70 exhibitors, and 140 speakers

Bosch's IoT activities are broadly diversified, encompassing solutions for connected mobility, connected manufacturing, as well as for connected energy systems and buildings. At the Bosch ConnectedWorld forum for the IoT industry in Berlin, more than 70 exhibitors will demonstrate what is already possible with the internet of things, and how it will improve people's everyday lives in the future. On a 10,000 square-meter exhibition space at "Station" in Berlin, some 4,000 delegates will meet from February 21 to 22. In addition to the Bosch CEO Dr. Volkmar Denner, the roughly 140 speakers will include Dr. Dieter Zetsche (CEO Daimler), Dr. Frank Appel (CEO Deutsche Post DHL), and Johann Jungwirth (CDO Volkswagen). At a hackathon, some 700 programmers, start-up associates, and designers will develop new ideas for connected mobility services, automated driving, connected manufacturing and logistics, and connected living. The 2018 Bosch ConnectedWorld will be the fifth event of its kind. It is one of the world's largest conferences on the internet of things.

Press materials: Text, images, videos, and other press materials will be available starting 11:30 CET on February 21, 2018 at www.bosch-press.com

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The Bosch Group is a leading global supplier of technology and services. It employs roughly 400,500 associates worldwide (as of December 31, 2017). According to preliminary figures, the company generated sales of 78 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 62,500 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, <a href="www.bosch.com