Press Release

IAA Transportation: Bosch intends to grow further with climate-neutral powertrains

Full range of powertrain solutions for commercial vehicles

September 19, 2022
PI11536 BBM jck/af

- Bosch management board member Heyn: “Climate action is moving freight transport in more diverse directions.”
- Bosch generates one-fourth of the sales revenue in its Mobility Solutions business sector from technology for commercial vehicles.
- Bosch’s portfolio of commercial-vehicle powertrains encompasses diesel, battery-electric, and fuel-cell powertrains as well as the hydrogen engine.

Stuttgart/Hannover, Germany – From climate action and cost pressure to driver shortages, the global transportation and logistics industry is facing enormous challenges. Bosch delivers appropriate solutions to meet these challenges. As it moves toward the goal of climate-neutral freight transport, the technology company is steadily expanding its powertrain portfolio. In addition to diesel powertrains, which will continue to play a vital role in commercial vehicles for some time to come, Bosch also offers battery-electric and fuel-cell powertrains. The company has now incorporated another option, the hydrogen engine, to fill the gap in alternative powertrains, particularly for heavy construction vehicles and agricultural machinery. “Climate action is moving freight transport in more diverse directions. We expect alternative powertrains to drive major growth in our business over the course of the decade,” said Dr. Markus Heyn, member of the Bosch board of management and chairman of the Mobility Solutions business sector, at this year’s IAA Transportation in Hannover. In a world full of uncertainties, sales in Bosch’s Mobility Solutions business sector have grown by 6 percent so far this year after adjusting for exchange-rate effects. Bosch generates one-fourth of its sales revenue from commercial-vehicle technology, ranging from vans to 40-ton trucks. In addition to powertrains, the other pillars of Bosch’s commercial-vehicle business are driver assistance systems and connectivity.

Robert Bosch GmbH
Postfach 10 60 50
70049 Stuttgart,
Germany

E-mail Jennifer.Kallweit@bosch.com
Phone +49 711 811-42239
Twitter @JCKallweit

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

Bosch is bringing new energy to commercial-vehicle powertrains

According to Bosch forecasts, over 80 percent of all trucks weighing six metric tons or more will still be diesel-powered in 2025. Powertrain diversity will subsequently increase and, by 2035, half of all new commercial vehicles will be electric, powered either by battery or hydrogen. “A technology-neutral approach is particularly useful in commercial vehicles. Depending on the application, there will be more than one climate-neutral option for the truck powertrain,” Heyn said. At Bosch, 3,400 engineers alone are working on the truck powertrain of the future. No other company offers as many electromobility options as Bosch: from e-bikes to construction machinery, and from silicon carbide chips to complete drive modules. This strategy is paying off: Bosch already has 30 major orders from manufacturers for battery-electric powertrains. Bosch also has big plans for the fuel cell. By 2025, the company aims to have over 40,000 Bosch fuel-cell systems on the road. To support this goal, Bosch also manufactures the stacks itself and is establishing global production capabilities close to its customers, specifically at its plants in Anderson (USA), Wuxi (China), and Bamberg (Germany). Fuel cells are not the only way to power trucks using hydrogen; there are also H_2 engines. Bosch develops the control units and injection technology required for these engines and has already acquired a major project in India.

Bosch is teaching trucks to drive

Bosch is in its element not only in hardware, but also in software. Half the R&D associates in the Mobility Solutions business sector are software engineers. Among other things, this promotes the development of automated driving. Bosch has 1,100 engineers working on this topic, and it supplies software, sensors, vehicle computers, and actuators from a single source. “Automated driving is coming, due in part to the acute driver shortage. And nowhere does automated driving make more economic sense than in commercial vehicles,” Heyn said. Across Europe, there is already a shortage of 400,000 drivers. Bosch aims to implement driverless operation on freeways by the end of the decade. In 2025, a vehicle computer that enables sensor data to be processed in real time will go into large-scale production at a European truck manufacturer. Bosch technology will make the electronics architecture in future commercial vehicles significantly more powerful, thereby delivering the basis for the software-defined truck. On the road toward automated driving, the company is doing good business with driver assistance systems. Best example: corner radar sensors in trucks. This market will grow by 40 percent over the next few years, Bosch by almost 60 percent. The company’s efforts here are driven by various factors, including the legal requirements for preventing road accidents with commercial vehicles. For example, the turn assistant function will be a mandatory feature in Europe from 2024.

Bosch prepares to launch logistics platform

In its work on the future of freight transport, Bosch is also looking beyond the hood. Bosch has joined forces with U.S.-based cloud provider Amazon Web Services (AWS) to operate a software platform that bundles not only its own logistics services but also third-party services. Integrating these solutions delivers a boost in efficiency. Instead of using the multitude of independent solutions currently on offer, logistics companies and freight forwarders across the globe will have quick and easy access to digital services from a single source. “We will be launching our logistics platform in India within the next few weeks and then in Europe and the U.S. at the beginning of next year,” Heyn said. One example of Bosch services for the transportation and logistics industry is logistics monitoring. Bosch service centers monitor the condition of critical or even medically vital goods – between 30,000 and 40,000 truckloads annually. During the coronavirus pandemic, Bosch also took on the monitoring of vaccine shipments. There is also high demand for secure truck parking, a service that can be used to reserve truck parking spaces. Bosch already offers 100 suitable areas along the highways in eleven European countries. Bookings tripled in 2021 alone. Bosch is also expanding its service portfolio to include a retrofit solution for the keyless access system for commercial vehicles, which will be launched in 2023.

Press photos: #964e46a8, #b7745a68, #48045f4c, #07b401cb, #beb6b559, #13da3717, #55f9cd1f, #3812e82b

Contact person for press inquiries:
Jennifer Kallweit
Phone: +49 711 811-42239
Twitter: @JCKallweit

BOSCH AT IAA TRANSPORTATION 2022

Panels with Bosch experts at the IAA Conference:

- **Tuesday, September 20, 14:15 – 15:15 CEST in the Industry Forum:** Presentation: “How to manage the operational challenges of multi-brand commercial EV fleets” by Michael Köhler, Senior Vice President Business Unit Battery at Robert Bosch GmbH
- **Tuesday, September 20, 17:30 – 17:45 CEST on the Main Stage:** Keynote: “Powertrain solutions for future transportation” by Jürgen Häusser, Vice President Product Management Commercial Vehicle & Off-Road at Robert Bosch GmbH

- **Wednesday, September 21, 17:00 – 19:00 CEST at the Cummins booth (hall 20, booth A12):**
  "Open dialog on the hydrogen engine" with Dr. Andreas Kufferath, Engineering System Diesel Powertrain at Robert Bosch GmbH
- **Thursday, September 22, 11:30 – 12:00 CEST on the Main Stage:**
  Presentation: "Global digitization in logistics" by Mariella Minutolo, Executive VP Progressive Mobility Players at Robert Bosch GmbH

FOLLOW the Bosch IAA 2022 highlights at www.bosch-iaa.com and on Twitter: @BoschPress, #BoschIAA

Mobility Solutions is the largest Bosch Group business sector. It generated sales of 45.3 billion euros in 2021, and thus contributed 58 percent of total sales from operations. This makes the Bosch Group one of the leading automotive suppliers. The Mobility Solutions business sector pursues a vision of mobility that is safe, sustainable, and exciting, and combines the group's expertise in the domains of personalization, 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 402,600 associates worldwide (as of December 31, 2021). The company generated sales of 78.7 billion euros in 2021. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch is pursuing a vision of mobility that is sustainable, safe, and exciting. 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 facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help. 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 some 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. With its more than 400 locations worldwide, the Bosch Group has been carbon neutral since the first quarter of 2020. The basis for the company's future growth is its innovative strength. At 128 locations across the globe, Bosch employs some 76,100 associates in research and development, of which more than 38,000 are software engineers.

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