



## **NAIAS 2022**

### **Bosch presents electrification, fuel cell and software-based solutions at NAIAS 2022**

Company also highlights industry collaboration with showcase at Detroit Smart Parking Lab

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- ▶ Bosch eAxle solutions with silicon carbide technology help to enable electrification
- ▶ Fuel cell portfolio on display after August announcement that Bosch fuel cell stacks will be produced in Anderson, S.C.
- ▶ Software-based solution tailgate down view technology for pickup trucks makes its public debut at NAIAS 2022
- ▶ Demonstrations at Detroit Smart Parking Lab showcase importance of industry collaboration

Detroit – Future mobility concepts are being driven by the major trends of electrification and software, but also by new approaches to collaboration across the industry. At the 2022 North American International Auto Show (aka Detroit Auto Show), Bosch will present a number of solutions to support customers in areas including electrification, vehicle motion and software. It will also highlight collaborative initiatives such as the Detroit Smart Parking Lab.

“Our portfolio spans across many domains of the vehicle, including system-level and software-specific expertise,” said Paul Thomas, executive vice president of Mobility Solutions, Americas. “Our presence at NAIAS highlights the vast number of ways we work together with our customers and across the industry to help future mobility concepts become reality.”

#### **Enabling electrification**

Bosch has a rich history in powertrain and continues its leadership as more and more electrification solutions come to market. In 2021, the company's orders related to electrification for passenger vehicles and light trucks surpassed ten billion euros for the first time. Already, more than five million vehicles around the world feature Bosch electrical powertrain components.

At NAIAS 2022, Bosch will showcase solutions that continue to enable electrification. The **advanced driving module** shows individual systems for propulsion, steering and braking integrated into a harmonized module. The result is reduced complexity for electric vehicle development and engineering.

A key part of the Bosch electrification portfolio is the eAxe, which provides manufacturers with a complete solution that optimizes cost and helps to reduce complexity. The **eAxe city** is a compact, light, and efficient drive solution where the electric motor, inverter and transmission are combined in one system housing. Its compact size means it is suitable for use in smaller vehicle classes. The power modules of the eAxe city are based on silicon carbide semiconductor technology for new generation of highly efficient and energy-saving silicon carbide inverters.

The **eAxe performance**, which also features silicon carbide technology for both 400V and 800V, achieves a technological leap thanks to the use of new semiconductor technology combined with a multi-objective, multi-domain development approach.

“OEMs must show that electrified trucks and SUVs will retain the same performance characteristics customers demand including ride & handling – on and off-road, torque, towing, range and maintenance costs,” Thomas said. “No other company can match Bosch for the diversity of our electromobility portfolio that enables our customers to deliver vehicles consumers demand.”

### **All in for hydrogen**

Part of the broad electrification approach at Bosch is a strong investment to support the development of the hydrogen economy. The company recently announced it would be [investing \\$200 million](#) to produce fuel cell stacks in Anderson, S.C. And globally, Bosch [announced](#) it would invest more than \$1 billion USD globally to develop mobile fuel cell technologies by 2024.

Bosch’s portfolio in mobile fuel cells offers a fuel cell system from one single source. The company offers a scalable **fuel cell power module** comprised of a fuel cell stack and submodules to generate electricity to power commercial vehicles. Bosch also offers the **fuel cell stack** independently.

Complementing the module and stack are components, also known as the **balance of plant components**, needed for fuel cell vehicles. This includes sensors, valves, electronic control units and electric air compressors.

### **New software-based solution for pickup trucks**

Software-based solutions are found across the Bosch Mobility Solutions portfolio. In the area of driver assistance and vehicle motion, the company will debut a new software-based solution publicly for the first time at NAIAS 2022. **Tailgate down view** is a visualization software feature that allows a driver to see behind a vehicle when the tailgate is in the down position. This addresses the limitations of a traditional rear-view camera which does not allow a pickup truck driver to see behind their vehicle when the bed is loaded, and the tailgate is down. The solution is part of a full portfolio of trailering, parking, maneuvering and visualization solutions from Bosch.

“We have a deep understanding of truck and SUV end-users,” Thomas said. “Our team has developed a full portfolio of solutions that fit the North American market where the truck and SUV segments are in the lead.”

### **Connectivity enables new insights and features**

Across its entire business, Bosch is reaping the benefits of connectivity and the Internet of Things (IoT). As of the beginning of 2022, the company announced all its electronics product classes were connectable.

In the area of mobility, Bosch’s braking portfolio is now IoT-ready. At NAIAS, the company will highlight its **connected braking systems**, which enable both data-driven development for automakers and Bosch as well as data-driven service enablement for fleet owners and end consumers. Through continuous development enabled by data, specifications can be further defined, virtual updates sent to the system and development cycles shortened. For fleet owners and consumers, this benefit unlocks the ability to monitor component health information across braking systems, tires and other chassis components.

### **Detroit Smart Parking Lab demos highlight the value of industry collaboration**

Beyond its NAIAS display at Huntington Place, Bosch will host demonstrations in the [Detroit Smart Parking Lab](#). The Lab, which is a collaboration between the State of Michigan, Ford, Bedrock and Bosch, is a real-world test site for emerging technology that enables mobility and smart infrastructure pioneers, real-estate innovators and startups to test parking-related mobility, logistics and electric vehicle charging technologies.

During the Detroit Auto Show, the Detroit Smart Parking Lab will host demonstrations from startup organizations such as HEVO, WiTricity, Yoshi, Voltpost and It’s Electric covering topics such as wireless and curbside EV charging as well as remote vehicle charging and parking services.

“Collaboration is essential as we develop new technologies for the future of mobility,” Thomas said. “The Detroit Smart Parking Lab shows the possibilities when we bring together a broad range of perspectives from manufacturer, supplier, infrastructure, government and startups.”

Bosch will also demonstrate its own technology in the lab. **RideCare** helps mobility service providers and fleet managers run fleets more efficiently by detecting damages to the vehicle, smoking inside the vehicle, and hard driving maneuvers in real time.

Bosch will also showcase its automated and driverless parking system, **automated valet parking**. Here the vehicle interacts with infrastructure in the garage to autonomously navigate to a parking spot and park. Further interface between infrastructure and mobility concepts will be shown through Bosch **video as a sensor** technology where features such as artificial intelligence can power new use cases.

#### **Bosch at NAIAS 2022**

- **BOSCH DISPLAY:** September 14-15 on Level Three, Room 330A, Cobo Center.
  - **Sept. 14:** 9 a.m. – 9 p.m.
  - **Sept. 15:** 9 a.m. – 6 p.m.
- **Detroit Smart Parking Lab:** at Bedrock’s Assembly Garage, 1701 W. Lafayette Boulevard between 10th Street and Rosa Parks Boulevard
  - **Sept. 14:** 8 a.m. – 10 p.m.
  - **Sept. 15:** 8 a.m. – 9 p.m.

#### **Contact person for press inquiries:**

Tim Wieland  
Phone: +1 248-876-7708  
[Tim.Wieland@us.bosch.com](mailto:Tim.Wieland@us.bosch.com)

#### **About Bosch**

*Having established a regional presence in 1906 in North America, the Bosch Group employs nearly 35,500 associates in more than 100 locations, as of December 31, 2021. In 2021, Bosch generated consolidated sales of \$13.5 billion in the U.S., Canada and Mexico. For more information, visit [www.bosch.us](http://www.bosch.us), [www.bosch.ca](http://www.bosch.ca) and [www.bosch.mx](http://www.bosch.mx).*

*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 \$93.1 billion 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](http://www.bosch.com), [www.iot.bosch.com](http://www.iot.bosch.com), [www.bosch-press.com](http://www.bosch-press.com), [www.twitter.com/BoschPresse](https://twitter.com/BoschPresse).*

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