

Press release

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MAHLE presents its products at Expo Dubai

- Group exhibits as a partner of Baden-Württemberg in the German Land's pavilion
- · Focus on innovations for e-mobility
- Highlight: magnet-free electric motor without rare earth elements
- World Expo takes place in Dubai from October 1, 2021, to March 31, 2022

MAHLE will present its products at the Expo, which opens its doors on October 1 in Dubai. The Stuttgart-based automotive supplier is represented as a partner of the German Land of Baden-Württemberg alongside 13 other companies in the Land's own pavilion. At the World Expo, MAHLE will showcase its latest innovations for e-mobility. The highlight is the new magnet-free electric motor recently unveiled by the technology group. Visitors can also learn more about the company's activities in the areas of battery cooling, electric vehicle charging, and e-bikes. E-mobility is one of MAHLE's fast-growing strategic technology fields. By 2030, the company aims to increase its share of sales generated independently of the passenger car combustion engine from 60 to 75 percent. The Land of Baden-Württemberg is the only region, alongside 192 nations, that will have its own pavilion at the international exhibition, which runs until March 31, 2022.

"We are very pleased to be a partner of the Land of Baden-Württemberg at the Expo. The World Expo is a global stage where we can present our innovative strength to an international audience," says Michael Frick, Chairman of the MAHLE Management Board (ad interim) and CFO. "Our solutions are aimed at rapidly establishing climate-friendly alternative drive systems such as e-mobility in the markets."

MAHLE is the expert for vehicle drive systems and temperature control. As a leading international development partner and supplier to the automotive industry, the company is able to use its extensive know-how to develop integrated modular and systems solutions for e-mobility applications. The technology group will also be showcasing its broad range of technologies for the



future of mobility, from charging technologies and battery systems to electric motors, at the Expo.

The magnet-free motor from MAHLE represents a revolution in the development of electric motors as it brings together strengths of different electric motor concepts that could not previously be combined. The electric motor concept is not dependent on rare earth elements, making it particularly sustainable and low-cost. It runs wear-free and achieves efficiency levels only seen in the drives for Formula E race cars to date. It can be used in a wide variety of vehicles—from passenger cars to commercial vehicles.

In addition, MAHLE will be presenting an intelligent fast charging system from its corporate start-up chargeBIG with outputs of up to 750 kW, as well as a new battery cooling system that protects the batteries from overheating, enabling fast charging in just a few minutes. Exhibits will also include MAHLE technologies for pedelecs. The Group's particular strength is the use of compact and lightweight rear wheel hub motors, batteries, electronic control units, and other pedelec components that can be integrated unobtrusively into the bicycle. The hardware is supplemented by an integrated connectivity solution featuring mobile and webbased apps.

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The new traction motor from MAHLE is wearfree, compact, and not dependent on rare earth elements. This is an enormous innovative leap—comparable to the jump from the intake manifold to direct injection in the gasoline engine.



Immersion cooling shortens the battery charging times for electric cars considerably. To allow for fast charging, the temperature in the battery cell needs to be evenly distributed and must not rise too sharply.



chargeBIG, MAHLE's intelligent charging system, has now been expanded with chargeBIG Power: fast charging posts with outputs of up to 750 kW.





MAHLE is giving the bicycle back its identity: smart bike drives from MAHLE are inconspicuous and ultralight, and offer smart connectivity.



From October 1, MAHLE will present its innovations alongside 13 other companies in the Baden-Württemberg pavilion.
Foto: Catalin Marin

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About MAHLE

MAHLE is a leading international development partner and supplier to the automotive industry. The technology group is now broadly positioned in the areas of powertrain technology and thermal management with a clear focus on future topics relating to mobility. As part of its dual strategy, MAHLE is working both on the intelligent combustion engine for the use of hydrogen and other nonfossil fuels and on technologies that will help the fuel cell and e-mobility achieve broad acceptance in the markets. The product portfolio of the company, which was founded in 1920, addresses all the crucial aspects of the powertrain and air conditioning technology. Half of all vehicles in the world now contain MAHLE components. #weshapefuturemobility

In 2020, MAHLE generated sales of approximately EUR 9.8 billion and is represented in over 30 countries with more than 72,000 employees in 160 production locations and 12 major research and development centers. (Last revised: 2020-12-31)