Press release

Stuttgart, October 13, 2025

Fuel Cell Truck from RWTH Aachen University Stops Off at MAHLE

- Fuel cell truck prototype from Rheinisch-Westfälische Technische Hochschule Aachen (RWTH Aachen University) on tour in Germany
- Exchange between science and industry
- MAHLE develops production-ready components for fuel cell drive systems
- Many MAHLE components are installed on all current electrified trucks

The state-of-the-art fuel cell truck developed by the "Production Engineering of E-Mobility Components" (PEM) department of RWTH Aachen University stopped off at the MAHLE headquarters in Stuttgart on Friday as part of its Germany roadshow. The vehicle has been built as part of the university project "SeLv", which is sponsored by the Federal Ministry of Transport. This project involves research on trucks for zero-emissions logistics in heavy goods transport using an electrification toolkit and an economical production system. The visit to MAHLE provided an opportunity for university scientists and industrial technology developers to exchange experience and also included a live demonstration for employees. The technology group has been developing production-ready fuel cell drive system components for passenger cars and commercial vehicles for many years. MAHLE components are installed to a significant extent on all current electrified trucks. Last year, MAHLE presented a complete system for a fuel cell truck including fuel cell peripherals, thermal management, and a fully functional heavy-duty e-axle.

"Hydrogen is more than just an energy source—it is the key to the sustainable mobility of the future," said MAHLE CEO Arnd Franz. "If science and business work hand in hand, we can put climate-neutral technologies on the road in the near future and actively contribute to the rapid decarbonization of transportation."

"Engaging with scientists over the latest developments and gaining insights into the development and application of hydrogen mobility from their point of view provides new impetus for our work," said Dr. Marco Warth, Head of Corporate Research and Advanced Engineering at MAHLE. "The truck prototype from the PEM Department of RWTH Aachen University highlights the potential of hydrogen and allows people to experience it at first hand in the demonstrator."

“The registration of our fuel cell truck for road use shows that innovative approaches can bring research prototypes forward to practical use and product maturity within a very short space of time,” said Professor Achim Kampker, Head of the PEM Department.

In addition to the tractor, the RWTH Aachen University team also presented a functional fuel cell stack as well as a demonstrator for hydrogen infrastructure and a test rig for efficient material and process tests on electric motors in the mobile showroom. Particular attention was also paid to innovative battery technologies: From a smart cell prototype to concepts for safety tests of battery cells through to battery recycling and battery cooling systems that are multifunctional, sustainable and structurally integrated, all aspects of modern energy storage were covered. This way, the fuel cell truck prototype makes complex research content from RWTH Aachen University tangible and vividly conveys the innovative strength of German university research.

Technological diversity is the MAHLE strategy for achieving its climate goals in the transportation sector. In addition to electrification, the group is forging ahead with the continued development of the internal combustion engine for the use of hydrogen and renewable fuels. At its hydrogen testing center in Stuttgart, MAHLE develops and tests economical, robust systems solutions for fuel cells and hydrogen engines.

Note for journalists: The press release and accompanying images are available in the MAHLE Newsroom at: https://newsroom.mahle.com/press/en/

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Science meets industry: (from left to right) Arnd Franz, MAHLE CEO, Dr. Marco Warth, Vice President MAHLE Corporate Research, Julius Hausmann, Leading Engineer “Hydrogen Technologies & Mobility Solutions“ and Henrik Born, Leading Engineer “Powertrain: Production Technology & Organization” both RWTH, and Markus Auer, Head of Project House Fuel Cell at MAHLE

Arnd Franz, Chairman of the Management Board and CEO of MAHLE Group

Dr. Marco Warth, Vice President MAHLE Corporate Research and Advanced Development

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About MAHLE

MAHLE is a leading international development partner and supplier to the automotive industry with customers in both passenger car and commercial vehicle sectors. Founded in 1920, the technology group is working on the climate-neutral mobility of tomorrow, with a focus on the strategic areas of e-mobility and thermal management as well as further technology fields to reduce CO_2 emissions, such as fuel cells or highly efficient, clean combustion engines that also run on synthetic fuels or hydrogen. Today, one in every two vehicles globally is equipped with MAHLE components.

MAHLE generated sales of €11.7 billion in 2024. The company has almost 68,000 employees at 135 production locations and 11 technology centers in 28 countries. (Last revised: 12/31/2024)

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