

Press Release

Sustainability in all its facets – FEV at the Aachen Colloquium Sustainable Mobility

Media Contact
Marius Strasdat
T +49 241 5689-6452
strasdat@fev.com



Aachen (Germany), October 2024 – At the 33rd Aachen Colloquium Sustainable Mobility, the city of Aachen will be the meeting hub for the entire mobility industry from October 7 to 9. FEV will be presenting pioneering approaches to reducing carbon emissions and increasing energy efficiency in vehicles at the Eurogress convention center. These will include innovative developments in hydrogen drives and electromobility as well as intelligent software solutions for autonomous driving functions and an AI-based voice assistant.

“In Aachen, we are showcasing how ecological and economical goals of sustainable mobility can be reconciled with cross-sector and cross-technology approaches,” said Dr. Patrick Hupperich, President and CEO of FEV Group. “The electric propulsion and software solutions presented here demonstrate how FEV is continuously driving forward the transformation of the mobility sector with its innovative strength and expertise.”

Evolution to touch - the Toyota APM

As an example of a viable CO₂-neutral local transportation concept, FEV is presenting Toyota's Accessible People Mover (APM), which transported athletes and officials around the city of Paris just a few weeks ago during the global sport events with zero emissions. The

vehicle is designed for up to six people and enables easy access for wheelchair users and offers sufficient space – for example for the athletes' equipment. FEV developed the electric drive unit for the vehicle together with the Japanese car manufacturer in just 18 months.

Sustainable propulsion solutions – in all sizes

FEV proves its innovative strength with the demonstrator of an electric drive that can be adapted for different applications thanks to its interchangeable rotors. By using different magnets in the rotors, material costs can be significantly reduced. Visitors will also be able to experience the latest generation of electric drives for pedelecs and e-bikes as well as a dual-rotor motor developed in collaboration with the Munich-based start-up DeepDrive for a range of applications from cars to small trucks. By replacing the conventionally installed stator with a second rotor, the motor delivers a higher torque at the same voltage and enables excellent partial load efficiency thanks to the savings in material and weight of the omitted stator. To increase the range of battery electric vehicles, FEV and its project partner SYTECH have developed a four-cylinder engine with opposing pistons, which will be presented at the trade fair booth. FEV also focuses on the development of these hybridized BEV concepts as a promising solution which are already successful in the Chinese markets.

Battery technology of tomorrow

In the field of battery development and the integration of energy storage systems into the overall vehicle, FEV is presenting the ALBATROSS 2.0 battery management system and integrated power electronics for inverters in the electric motor. These can be individually adapted to the customer's conditions and enable better electromagnetic compatibility and improved efficiency while saving space and costs at the same time. In addition, visitors to the FEV stand can experience a demonstrator for bidirectional charging, which functions as an energy storage unit in the smart grid.

Hydrogen – versatile and highly energetic

For the Italian commercial vehicle manufacturer IVECO, FEV has realized the complete drive train electrification of the DAILY small utility vehicle family with fuel cell technology. The 90 kW fuel cell from Hyundai used here will be on display in Aachen. FEV will also be presenting a 2.5-liter hydrogen direct injection engine with an output of 55 kW and a maximum torque of 315 Nm, which was developed together with project partner Kohler Engines. Emission measurements have proved that the unit, which was originally designed as a diesel engine, produces practically no relevant pollutant emissions.

Digital sustainability

When it comes to software development and the digitalization of the transport sector, FEV has also developed pioneering innovative solutions. For example, visitors can experience an AI-based voice assistant and autonomous driving in a software-defined vehicle (SDV) demonstrator.

Customizations for proven markets

With the FEV energy + resources brand, the company is presenting a strategic realignment of its services for the energy sector. The focus is on technical and economic consulting for plant projects of large energy producers as well as the transformation of medium-sized companies towards a sustainable economy. FEV transfers its expertise and experience from electrolyzer and battery development for mobile applications to stationary energy storage systems and develops integrated hardware and software solutions, from concept to series production.

In June, FEV presented another new brand at the ILA Berlin Air Show: FEV aerospace bundles the company's expertise and know-how for the aerospace industry. Here the focus is on the development of propulsion systems based on fuel cells and batteries for small aircraft and eVTOLs.

Guests of the Aachen Colloquium Sustainable Mobility will experience the new and proven brands as well as the various exhibits as proof of FEV's innovative strength at booth 5 in the Eurogress.

The diversity of solutions and expertise is also apparent in the lecture program. In eleven exciting presentations, the FEV experts will report on innovations from the company's entire range of services. The topics range from the latest battery technology, hydrogen drives and power electronics to software-defined vehicles and strategic solutions from an economic and ecological perspective.

Further information, this year's program and registration for the 33rd Aachen Colloquium Sustainable Mobility are available [here](#).

Footage:



Caption: FEV presents innovative solutions for the mobility and energy supply of tomorrow at the Aachen Colloquium. Source: FEV

About FEV

FEV has always pushed the limits.

FEV is a globally leading engineering provider in the automotive industry and internationally recognized leader of innovation across different sectors and

industries. Professor Franz Pischinger laid the foundations by combining his background in academia and engineering with a great vision for continual progress. The company has supplied solutions and strategy consulting to the world's largest automotive OEMs and has supported customers through the entire transportation and mobility ecosystem.

As the world continues to evolve, so does FEV.

That's why FEV is unleashing its technological and strategic expertise into other areas, applying its forward thinking to the aerospace and energy sectors. Thanks to its software and system expertise, the company also leads the way making intelligent solutions available to everyone. FEV brings together the brightest minds from different backgrounds and specialties to find new solutions for both current and future challenges.

But FEV won't stop there.

Looking ahead, FEV continues to push the limits of innovation. With its highly qualified 7,000 employees at more than 40 locations globally, FEV imagines solutions that don't just meet today's needs but tomorrow's. Ultimately, FEV keeps evolving – to a better, cleaner future built on sustainable mobility, energy and software that drives everything. For the company's partners, its people and the world. [#FeelEVolution](#)