Press Release

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30th Aachen Colloquium: FEV Presents Solutions for CO_2-Neutral, Efficient and Connected Mobility

Aachen, Germany, September 2021 – Every year in the fall, experts from the automotive industry come together to discuss the latest developments for the mobility of the future at the "Aachen Colloquium Sustainable Mobility". After the previous year's event, which was held digitally due to the COVID-19 situation, the Eurogress will reopen in 2021 for the 30th Aachen Colloquium and its visitors from 4 October.

FEV, a leading international engineering service provider, will focus on developments in the fields of electromobility, hydrogen technologies, complete vehicle, and software development at the event.

Digital mobility and software development

The company is paying particular attention to the topic of digital mobility at Booth 04 in the Aachen Eurogress. Specifically for the needs of Software Defined Vehicles (SDV), functionalities such as connectivity and cloud-based computing power are key development disciplines that FEV is addressing together with its strategic partner Wipro – a leading global IT company. It is also working on solutions to accelerate the industrialization of SDVs. Questions about constantly increasing system complexity, for example in automated driving functions, are also being answered.

The methodologically unique scenario- and model-based systems engineering concept (MBSE) developed by FEV reliably supports customers in controlling the high, constantly increasing verification

and validation efforts for automated driving functions. In addition to future E/E and software architectures, the Aachen-based development service provider will also showcase an inverter whose actions are controlled live on site by a hypervisor.

360° battery development – everything from a single source

FEV will also showcase the company's 360° battery development capabilities. Benchmarking and high-end simulations for thermal propagation of high-voltage batteries will be shown as well as the Energetic Layout Tool, which enables customers to evaluate battery design concept ideas and verify fundamental concept decisions in just two weeks.

In addition, the test benches of the world's largest battery development and test center – the eDLP – can be visited thanks to a virtual tour and FEV battery developments for HEV as well as BEV vehicles can be viewed at the booth. Among them is the development for a Dutch electric vehicle that achieves a range of up to 710 kilometers on one battery charge with a low energy consumption value of just 8.5 kWh/100km.

Hybrid BEV: One platform for different applications

In addition, FEV is presenting the approach of a Hybrid-BEV. It supports customers in massively reducing development costs for fleets of purely battery-electric and hybrid vehicles. The company's single-platform concept brings all the advantages of a dedicated architecture for electric vehicles with it, while at the same time providing for the optional integration of an efficient combustion engine in the sense of a serial hybrid, depending on market preference.

Hydrogen technologies for the toughest applications

Another highlight of the FEV booth will be GCK Motorsport's Dakar Rally vehicle "e-Blast H2", which has a 200 kW fuel cell drive. In 2024, "e-Blast H2" will compete in the Dakar Rally – FEV

will support the effort with its extensive design, development and integration expertise for fuel cells, thus demonstrating the potential of this technology under the toughest operating conditions. As another hydrogen application, FEV will show a medium-duty truck H2 combustion engine with a displacement of 7.7 liters. Its special feature: the engine is not a trade show dummy but comes directly from the test stand to the exhibition.

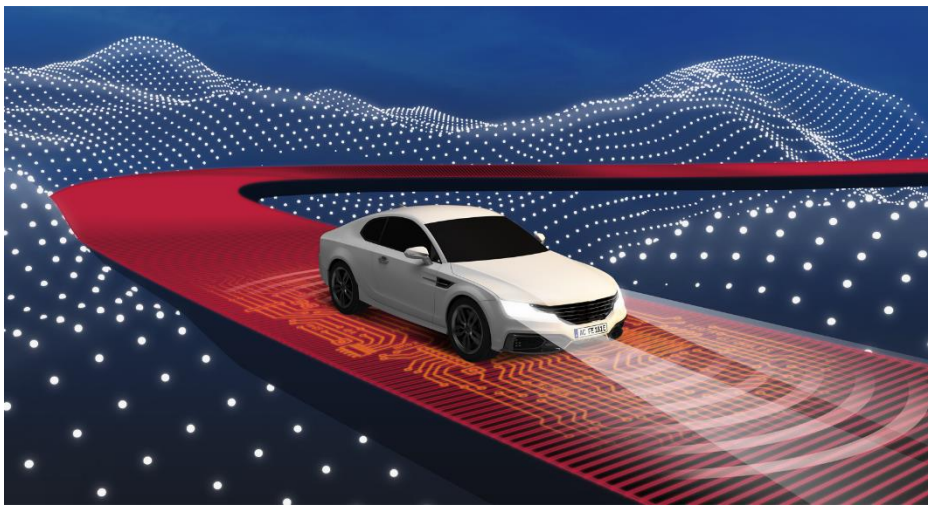
The topic of drives of the future is rounded off by test bench solutions for fuel cell and battery electric drives.

Total vehicle development for the future of mobility

Outstanding solutions for increasing efficiency, comfort, and safety not only, but especially, of electric vehicles will be shown in the area of total vehicle development at the FEV booth at the Aachen Colloquium. For example, simulations will demonstrate the state of the art in thermal management and aerodynamics development – topics that have a decisive impact on vehicle efficiency – as well as NVH solutions that specifically address sound design for electric cars. FEV will also showcase strategies that design BEV structures to meet the toughest crash requirements, including lateral pole impact.

High-quality program

The 30th Aachen Colloquium opens its doors on 4 October from 6:00 pm. Until 6 October, experts from the automotive industry can take advantage of the event's diverse offerings. These include a high-quality lecture program and an innovative trade exhibition, as well as the opportunity to experience the latest automotive developments for themselves on a test track.



At the 30th Aachen Colloquium (Booth 04), FEV will focus on digital mobility, connectivity, software development and architectures of the future, and all topics related to e-mobility, hydrogen-based technologies, and total vehicle development.

Source: FEV Group

At the 30th Aachen Colloquium (Booth 04), FEV will present the "e-Blast H2" from GCK Motorsport, a spectacular vehicle that will participate in the Dakar Rally in 2024. FEV takes over design, development, and integration of the 200 kW fuel cell system for toughest operating conditions.

Source: FEV Group

About FEV

FEV is a leading independent international service provider of vehicle and powertrain development for hardware and software. The range of competencies includes the development and testing of innovative solutions up to series production and all related consulting services. The range of services for vehicle development includes the design of body and chassis, including the fine tuning of overall vehicle attributes such as driving behavior and NVH. FEV also develops innovative lighting systems and solutions for automated driving

and connectivity. The electrification activities of powertrains cover powerful battery systems, e-machines and inverters. Additionally, FEV develops highly efficient gasoline and diesel engines, transmissions, EDUs as well as fuel cell systems and facilitates their integration into vehicles suitable for homologation. Alternative fuels are a further area of development.

The service portfolio is completed by tailor-made test benches and measurement technology, as well as software solutions that allow efficient transfer of the essential development steps of the above-mentioned developments, from the road to the test bench or simulation.

The FEV Group currently employs 6,300 highly qualified specialists in customer-oriented development centers at more than 40 locations on five continents.