

## **Automated driving, new vehicle concepts and climate-friendly propulsion systems: Experts from research and development discuss the future of mobility at the 28th Aachen Colloquium Automobile and Engine Technology.**

In the light of numerous challenges like a strict emission legislation or a rising automatization of vehicles, the automobile branch faces the complex task to shape the future of mobility. Which competencies will our vehicles have in the future and how will we interact with them? Which climate-neutral energy sources and propulsion systems will we use in the future? These are the questions which experts of automobile and propulsion technology, from science and companies are discussing at the 28th Aachen Colloquium.

The Aachen Colloquium Automobile and Engine Technology under direction of Professor Lutz Eckstein, Institute for Automotive Engineering (ika), and Professor Stefan Pischinger, Institute for Combustion Engines (VKA) of RWTH Aachen University counts as one of the leading technical conferences in the automotive area worldwide. In more than 100 technical presentations – accompanied by a technical exhibition with around 70 exhibitors – the approximately 1800 experts exchange intensively on one of the biggest global challenges: shaping the future of mobility.

The plenary speeches of high-ranking executives from the automotive industry and politics gained special attention.

Hendrik Wüst, Minister of Transport of the State of North Rhine-Westphalia (NRW), talked about the future of mobility and the opportunities and challenges for NRW: „I am convinced – and I speak for the whole state administration of North Rhine-Westphalia – that the expertise, the engineering science will count more than the heated discussions which we facing in the media.”

Ichiro Hirose, Senior Managing Executive Officer of Mazda Motor Corporation reported on the way toward the ideal internal combustion engine for a sustainable future, which plays an important role in the company strategy: “The contribution of Mazda to the goal of a sustainable world is the evolution of the internal combustion engine.”

Dr. Jörg Stratmann, Chairman of the Management Board and CEO of the MAHLE Group presented “Tailored Mobility – MAHLEs Concept for the Drivetrain of the Future”. Concerning CO<sub>2</sub> emissions, in his opinion different propulsion technologies depending on the use case will prove the best specific solutions: „There is not the one solution, but only specifically best solutions. For many use cases, the plugin hybrid is the best propulsion solution independent from the very different circumstances in the local markets.”

In the closing plenary session on Wednesday, Michael Reinartz, Director Innovation & Consumer Services at Vodafone Deutschland, will show how mobile communications transports road traffic into the future. Finally, Sanjay Ravi, M.Sc., General Manager, Automotive Industry at Microsoft Corporation, will give an outlook on how to empower the automotive industry and drive the future of mobility.

In the accompanying technical exhibition, renowned companies show their recent developments and innovations. This year, for example fka is presenting how drones can help secure networked

and automated driving. UAVs can quickly capture a variety of traffic situations and vehicle trajectories, e.g. vehicle type, speed and driving maneuver. The drone data recorded and processed by fka are available from motorways, city junctions and roundabouts, recorded in Germany and the USA. The more than 110,000 data records that are now available flow into a database that can be used to develop and secure automated driving scenarios for the automotive industry. Under the new brand levelXdata fka bundles its expertise in the field of data acquisition and processing for all stages of automated driving. From the creation of traffic records using drones, to the extraction of the trajectories of all road users, to the use of the results for automated driving functions.

At its exhibition stand, FEV presents pioneering developments for sustainable mobility. For example, the Duramax 3.0 L Diesel engine developed by General Motors in cooperation with FEV for heavy-duty applications (light-duty pickups and trucks), which sets new standards in its class with very low consumption and emission values. FEV is also exhibiting a fuel cell developed in collaboration with ElringKlinger at the technical exhibition. Its high outputs make it highly versatile and its structure has been specifically designed for mass production. A further highlight presented by FEV are its lighting concepts – such as a specially developed, innovative 3D technology that allows rear lights to optically project from the tail lights of the vehicle, making them much better and more quickly to detect than conventional systems, thereby increasing traffic safety several times over. With "SVEN", FEV is also presenting a fully electric turnkey vehicle concept designed to meet the needs of urban carsharing.

In the future, the various topics of automobile and engine technology will continue to be of high significance for research and industry. Thus, the 28th Aachen Colloquium is already determined: From October 7th to 9th, 2019, the Institute for Automotive Engineering (ika) and the Institute for Combustion Engines (VKA) of RWTH Aachen University will again invite to Eurogress Aachen for a lively debate between automobile enthusiastic experts from industry and research

Further information can be obtained at [www.aachen-colloquium.com](http://www.aachen-colloquium.com) and from the following contact:

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