

Press Release

2nd DEKRA Commercial Vehicle Outlook Conference

Innovative, Connected, and Efficient

- Automation, digitization, and CO2 reduction are megatrends
- Driver assistance systems increase road safety on a long-term basis
- Alternative drive systems are on the rise

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At the second DEKRA Commercial Vehicle Outlook Conference on November 7 and November 8, 2017, in Berlin, experts and professionals from politics, industry, and research discussed the potential of innovative technologies for commercial vehicles. The main focus of the presentations and panel discussions were topics such as vehicle safety, automated driving, intelligent connectivity, platooning, fuel saving, exhaust emissions, and alternative drive systems as well as the latest regulations concerning the dimensions and weights of commercial vehicles.

According to information from the most recent World Transport Report of Prognos AG, freight transport in Germany alone will grow by 25% from around 640 billion tonne kilometers to almost 860 billion tonne kilometers by the year 2040. Even so, by far the most important mode of transport will still be road haulage transport. This presents numerous challenges for commercial vehicle manufacturers, the supply industry, the entire transport and logistics sector, and even politics and science with regard to aspects such as efficiency, the climate, the environment, and road safety. Well-known speakers at the second DEKRA Commercial Vehicle Outlook Conference in Berlin discussed where the greatest need for action lies within these points to ensure long-term optimization.

Future of logistics

On the politics side, Norbert Barthle, a Member of the German Bundestag, pointed to the great potential of automated and connected driving. “Of course, first and foremost, it’s up to the companies to seize the opportunities offered by the new technologies and to develop new business models,” explained the parliamentary state secretary. But the right framework conditions are at least just as important, which is why the Federal Ministry of Transport and Digital Infrastructure has ensured a reliable legal framework for highly automated and fully automated driving functions with the most innovative road traffic legislation in the world. Likewise, drive systems are also experiencing change – with respect to the

Date Stuttgart / Berlin, November 9, 2017 / No. 112-A
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increasing electrification of traffic, the federal government has, in recent years, invested around EUR 4.7 billion in promoting electromobility with batteries and fuel cells. However, according to Barthle, natural-gas-based CNG and LNG drive systems and synthetic fuels also have potential. He also made a clear statement concerning combustion engines: “We will urgently need gasoline and diesel vehicles in the decades to come.”

There is no doubt that a further reduction of fuel consumption and CO2 emissions will be crucial in the future. “Heavy-duty commercial vehicles must make a substantial contribution to the EU CO2 reduction targets for the year 2030,” demanded Nikolaus Steininger, Policy Officer in the Directorate-General for Climate Action in the EU Commission, with regard to the planned systematic recording of CO2 emissions. The basis of this is the simulation program VECTO (Vehicle Energy Consumption Calculation Tool), which has been developed by the EU Commission in close cooperation with industry and science. Steininger is convinced that “as a result, transparency is increasing and at the same time, market-driven potential for reductions can be exploited more effectively this way.” But since this would not be sufficient, the EU Commission intends to propose CO2 standards by mid-2018.

The president of the German Association of the Automotive Industry (VDA), Matthias Wissmann, praised the commercial vehicle manufacturers and suppliers for their ambition of making road haulage transport more efficient and even cleaner with innovative solutions. “Networking vehicles with each other and the environment is reducing traffic congestion and making transport companies more efficient,” explained Wissmann. In the future, autonomous driving functions will play an important role over the “last mile” and will take over everyday tasks in urban and industrial applications. “However, for these innovations to take hold, a committed policy is also required; one that provides the suitable infrastructure and a legally compliant framework for the use of future technologies,” demanded the VDA President. In his opinion, as far as alternative drive systems are concerned, the principle of technological neutrality must prevail. Only a broad spectrum of drive systems and fuels will offer the companies in the commercial vehicle industry the means to ensure continued growth and prosperity in Germany.

High safety potential through automated driving

Central aspects of both days of the conference were active safety and how to get there through autonomous driving. “As an expert organization, we view the automation of driving first and foremost from the perspective of road safety,” emphasized Wolfgang Linsenmaier, member of the Management Board of DEKRA Automobil GmbH. After all, almost 90% of all road traffic accidents still occur as a result of human error. “In this respect, driver assistance systems and automated driving functions offer a large amount of safety potential by preventing human errors or minimizing the consequences.” But in his view, in this context, it must be guaranteed that the systems are comprehensively tested during development and in the framework of the type approval. “Moreover, the systems

must work reliably throughout the entire lifetime of the vehicle, meaning that it must also be possible to test them as part of periodic roadworthiness tests.”

“Today, thanks to numerous aids, modern trucks already drive at a high safety level,” explained Alexander Banerjee, Project Manager ADAS CV at ZF Friedrichshafen. With the vision of accident-free driving (“Vision Zero”) in mind, the technology group has enhanced current assistance systems in a practice-oriented manner with the ZF Innovation Truck. The results are the Highway Driving Assist (HDA), which prevents accidental lane changing, and the Evasive Maneuver Assist (EMA), which was developed in cooperation with WABCO. This technology allows trucks to carry out evading maneuvers and to brake. In addition, the concept vehicle maneuvers itself independently onto the loading ramp with the autonomous maneuver function SafeRange.

“We have been working on the vision of accident-free driving for many years,” highlighted Dr. Andreas Schwarzhaupt, Senior Manager Driver Assistance Systems and Automated Driving at Daimler AG, which considers safety to be one of the company's core topics. With the Active Brake Assist 4 emergency braking system with pedestrian detection and the Cornering Assist, the Mercedes-Benz Trucks division already put two new assistance systems on the streets at IAA 2016. These systems provide more effective protection for the most vulnerable road users, i.e. cyclists and pedestrians. The Active Brake Assist 4 also reacts to pedestrians crossing the street and can carry out partial braking. The Cornering Assist detects pedestrians and cyclists when changing direction at crossings and can warn the driver visually and acoustically before a collision occurs.

Long trucks, alternative drive systems, and digitization

At the conference, the question of what climate effects would be associated with the increased use of long trucks was also discussed. On behalf of the federal state of Baden-Wuerttemberg and Daimler AG, Prognos AG and thinkstep AG recently carried out a study. The results show that the use of such vehicles with a length of 25.25 meters is only beneficial for transporting relatively light or voluminous goods; this is true both financially and from the perspective of climate protection. “Thanks to the increased load volume, a long truck is equivalent to 1.5 conventional trucks for transporting these goods with the same load density, and consumes around 15% less fuel per tonne kilometer or pallet storage area,” said Dr. Stefan Eckert, Senior Consultant at thinkstep, summing up the findings.

Prof. Dirk Engelhardt, Managing Director of Bundesverband Güterverkehr, Logistik und Entsorgung e.V. (Federal Association for Freight, Logistics, and Waste Disposal) made it clear that a further reduction in consumption is an important objective for haulage companies and freight forwarders. However, the lack of drivers in particular is currently an urgent challenge. Therefore, many companies would leave the choice of truck up to the respective driver so that the vacancies can be filled at all. According to Wolfgang Thoma, Managing Director of Spedition Ansorge GmbH & Co. KG, long trucks are certainly a suitable means of addressing the lack of drivers. However, in Germany, the continuing discussions

concerning weight limits and the positive network, i.e. approved road kilometers for long trucks, prevent a greater market penetration. Klemens Große-Vehne, owner of KGV Fuhrparkservice GmbH and founder of Große-Vehne Speditions GmbH, sees the extended 15 meter semi-trailer in particular as a model of the future. "The long truck will also remain a niche product in the coming years; on the other hand, even today, the 15 meter trailer could provide a high added value both ecologically and economically speaking and with regard to road safety." Therefore, it should become the standard length for trailers in Europe.

A further topic: In the future, an increasing number of people will live and work in cities and metropolitan regions with several million inhabitants. At the same time, the requirements for air pollution control and noise reduction are increasing. It is foreseeable that more and more urban areas will introduce zero-emissions zones in the future. When that happens, the only vehicles that will be allowed to drive into these zones will be ones that can travel a defined distance without causing emissions and with very little noise. Various speakers proposed solutions for these challenges at the conference, including MAN Vice President Felix Kybart, who will present the MAN eTruck. Apart from the electric drive system, auxiliary units such as the power steering, the air compressor, and the air-conditioning system are also operated electrically. "One key to the success of the MAN eTrucks lies with the very early and close development partnership with our partner CNL, the Council für nachhaltige Logistik (Council for Sustainable Logistics), which comprises 17 logistics companies and food suppliers," explained the head of alternative drive systems at MAN Truck & Bus.

After all, when it comes to more efficient vehicle use, connectivity and digitization are also growing in significance. One example: Mercedes-Benz Uptime. "Here, we are making the digitization of trucks tangible, and we can prevent breakdowns before they occur," explained Michael Kimmich, Head of Customer Services & Parts Medium-Duty Technology & Diagnostics Mercedes-Benz Trucks. For this purpose, the new Truck Data Center connectivity module continuously checks the status of the vehicle systems in real time, enables early detection of critical states, and assigns specific recommendations for action. After all, in the future, predictive maintenance based on data collected in the vehicle may be far more significant than it is today. "Here, it will be crucial that the customer receives the data correspondingly well-prepared so that he is able to act quickly," said Matthias Stenau, Global Account Director at DEKRA.

About DEKRA

DEKRA has been active in the field of safety for more than 90 years. Founded in 1925 in Berlin as Deutscher Kraftfahrzeug-Überwachungs-Verein e.V., it is today one of the world's leading expert organizations. DEKRA SE is a subsidiary of DEKRA e.V. and manages the Group's operating business. In 2016, DEKRA generated sales totalling approximately 2.9 billion Euros. The company currently employs more than 39,000 people in more than 50 countries on all five continents. With qualified and independent expert services, they work for safety on the road, at work and at home. These services range

from vehicle inspection and expert appraisals to claims services, industrial and building inspections, safety consultancy, testing and certification of products and systems, as well as training courses and temporary work. The vision for the company's 100th birthday in 2025 is that DEKRA will be the global partner for a safe world.