
How ZF solves the problems of electromobility

The fair is not yet read for the combustion engine, but one thing is clear: Electromobility will play an important role in the automotive market for a long time to come. In the dynamic environment of this transformation, the development service provider ZF is once again making its mark with numerous innovations, some of which are groundbreaking. They are designed to further exploit the advantages of the electric drive and compensate for its disadvantages.

A few weeks ago, for example, ZF presented the EVbeat concept vehicle, which just happens to be based on the Porsche Taycan and combines leading technological solutions in an overall package. The aim of the project was to make the powertrain compact, lightweight, and powerful while increasing the range. The electric motor does not require heavy rare earths and has an impressive torque density.

The thermal management system has three cooling circuits and operates without fluorinated refrigerant. In addition, the vehicle can anticipate and adapt to the driver's behavior - via AI-based cloud service. The significantly smaller dimensions compared to previous electric drives give vehicle developers even greater flexibility.

ZF is also working on electrically driven trucks in the medium and upper weight classes. With different axle drives, it is thus possible to address the requirements of the markets, which differ significantly in some cases. Electrically driven trailers are also possible. The driveline systems are optimized in each case to ensure high energy efficiency while at the same time allowing sufficient range for long-distance deliveries.

By integrating advanced battery technologies and intelligent energy management, a balance is struck between performance and long-distance capability. The ride-alongs make it clear: these concepts are certainly not lacking in power. (aum/Jens Meiners)

Images for article



Photo: Autoren-Union Mobilität/ZF



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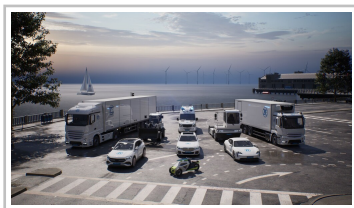


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