



We at Daimler AG as the inventor of the car and the truck assume responsibility for their future. Our Road to Emission-free Driving stands for our commitment to securing sustainable mobility. Our aim is to markedly reduce fuel consumption and emissions already today and to eliminate them entirely in the long term. To this end, we are developing a broad spectrum of state-of-the-art drive technologies that meet the specific requirements placed on today's and tomorrow's mobility in all modes of road transportation.



The key to greater efficiency and environmental compatibility lies in the electrification of the drivetrain. This offers great potential for improvement, which is being realized for example in auxiliary units, the automatic start / stop system,

and hybridization. For this stage of Daimler's "road map", we have developed a modular hybrid system that offers various possibilities for extension in terms of performance and range of vehicle applications. All hybrid drive variants can be realized on this basis: from so-called mild hybrids, with electric recuperation and boost function, up to purely electric driving. The future of the modular hybrid system is shown by the Mercedes-Benz Vision 500 Plug-in HYBRID. With a certified consumption of only 3.2 liters of gasoline per 100 kilometers and a purely electric operating range of 30 kilometers due to a battery which can be recharged, it offers green technology in a fascinating luxury-category vehicle.



The future has begun: Daimler vehicles with battery and fuel cell have proven their technical feasibility and are ready for every day use: The smart fortwo electric drive, Mercedes-Benz A-Class E-CELL, Mercedes-Benz B-Class F-CELL, Mercedes-Benz Vito E-CELL, Fuso Canter E-CELL, and Mercedes-Benz Citaro Fuel-CELL Hybrid are already in operation today and offer electromobility in all areas.

But there are still a number of challenges that will prevent electric automobiles from being a familiar sight on the roads in the near future. Boosting operating range and performance, cutting systems costs, and establishing an infrastructure



are the requirements that yet remain to be fulfilled. Power electronics is a key to master these challenges.

In R&D we investigate and optimize all the key components for electromobility, including batteries, charging systems, electric motors, drive inverters, and auxiliary devices together with the HV power net architecture in the car.