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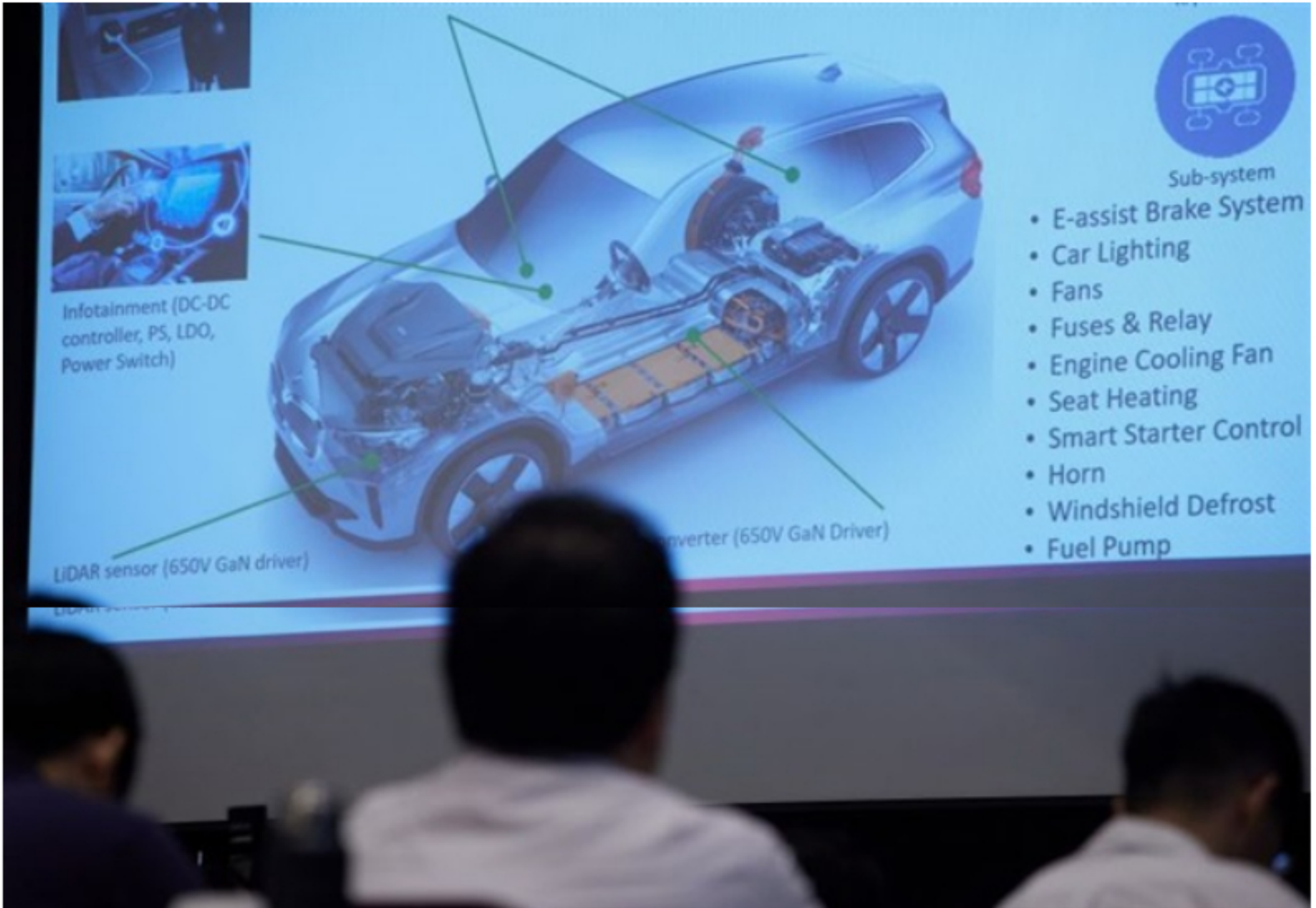
GaN Systems bullish about GaN potential in EV applications

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Credit: DIGITIMES

GaN Systems expressed optimism over the potential of gallium nitride (GaN) in electric vehicle (EV) applications at the ongoing SEMICON Taiwan 2023 exhibition.

GaN Systems participated in the "Power and Opto Semiconductor Forum" at SEMICON Taiwan 2023, providing an in-depth analysis of the critical role of electric transportation in the global sustainable net-zero blueprint, as well as breakthroughs brought on by GaN power semiconductors in EV efficiency, power density, and systems costs.

The electrification of transportation is regarded as a powerful tool to help reduce global CO2 emissions. Research service BloombergNEF estimates that EVs currently on the roads can reduce CO2 emissions by 150 million metric tons per year. However, to achieve net-zero emissions by 2050, the speed of EV popularization must accelerate.

Global EV sales are expected to surpass 14 million by the end of 2023 and reach 27 million in 2026. Still, range anxiety, charging efficiency, and price continue to affect consumer willingness to make the switch. At present, global tier-1 automakers and suppliers are focusing their R&D on powertrain innovation.

Rising sustainability awareness, policy support, and technological evolution are also driving the popularity of micromobility vehicles, such as electric bikes. Tremendous market demand has led to higher energy efficiency and smaller electrical drive systems.

GaN Systems GM of Asia and VP of operations Stephan Coates said that GaN power semiconductors can achieve high efficiency and high power density powertrain solutions, thereby improving the driving range and charging efficiency of electric transportation, while also reducing overall bill of materials costs.

GaN Systems is working closely with global tier-1 automakers and suppliers to bring game-changing functions to the next generation of electric transportation. At the same time, GaN Systems provides product-level and systems-level one-stop solutions to not only solve the bottlenecks encountered by current silicon-based components in system size miniaturization and energy efficiency but also reduce development costs.