



Press Release

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Marelli showcases advanced technologies at International Suppliers Fair (IZB), in Germany

Marelli is presenting its latest innovations in key technology areas at the **IZB International Suppliers Fair (Internationale Zuliefererbörse)**, from 11th to 13th October 2022 at Allerpark area, in **Wolfsburg, Germany**. At the company's booth – located in Hall 1, stand 1224 – Marelli showcases a selection of its cutting-edge technologies, aimed at helping its customers and partners shape the evolution of mobility, following the theme “*Driving what's next*”.

Having established itself as Europe's leading trade fair for the automotive supplier sector, IZB presents the latest trends across the industry, representing the entire automotive value chain.

Innovation in electrification and beyond, with technology flow-down from motorsport

Among the solutions that Marelli is presenting, a first focus is on technology to enable **total energy management of the vehicle**, through a complete, modular and scalable offer to control, manage and optimize the energy balance in electric vehicles. The company displays its e-axle system, integrating electric motors, inverter including software, and gearbox, and its range of high-performance Silicon Carbide (SiC) inverter solutions for power electronics, ensuring greater efficiency with reduced size and weight, for increased driving range.

These solutions are derived from the extensive expertise of **Marelli Motorsport** in the rapid introduction of innovative technologies, such as Silicon Carbide and Gallium Nitride (GaN), which is key in enabling a technological flow-down from racing to series production applications. On the motorsport side, Marelli's booth at IZB features **SiC and GaN technologies** to maximise power density and efficiency, that can ensure significantly more compact solutions, without impacting performance, a balance that is of paramount importance in racing vehicles and beyond.

Simplification, enhanced performance for vehicles of the future

In response to evolving vehicle architectures, Marelli also shows its **Multi Domain / Zonal Controller for propulsion and vehicle management** for all vehicles, hybrid and electric included. This brings together the simplification achieved by using multi-domain controllers (in place of multiple ECUs), and a revolutionary zonal orientated approach, combining the domain controllers for dynamics, transmission and propulsion control, torque coordination management, energy management, thermal management, diagnosis and safety into one module. Specifically, in HEVs



and EVs, the system interfaces with the inverter to manage the e-motors, enhancing the efficiency and performance of e-powertrain systems.

Aesthetics meets functionality in next-generation electronics, interiors and lighting

Marelli presents advanced solutions for electronics, including its **Horizon Head Up Display**. Based on Segments/Matrix LCD or Full RGB TFT, this technology projects the information for navigation, telltales and indicators close to the windshield bottom edge, allowing objects in the driver's blind spot to be easily recognized. It ensures good visibility through high-contrast images, with a distinctive appearance and competitive cost.

To meet OEM vehicle personalization needs, Marelli showcases seamlessly integrated displays that allow custom shapes to be created by combining two or more standard TFT modules, providing a wide display effect in all operational modes, excellent optical performance and energy savings of up to 60% compared to traditional solutions. The system shown at IZB is driven by an integrated Cockpit Domain Control Unit, which consolidates Electronic Control Units in a unique Controller, for higher performance, cost optimization and a unified experience.

Marelli's technologies for **Smart Cabin** combine interior design styling options, innovative user experience and cutting-edge electronics solutions. Marelli presents its haptic dashboard – based on vibration feedback instead of physical buttons – and broad collection of decorative materials, which can be integrated to develop a variety of decorative, informative, and interactive solutions.

Still coupling design and functionality are Marelli's **solutions for automotive lighting and sensing technologies**, such as illuminated front panels, which are expected to become a growing trend in the future. The system allows for safety, communication and branding functionalities in a single panel, integrating lighting systems, sensors for Advanced Driver-Assistance Systems and Autonomous Driving. The smart panels have the possibility to display or project messages and customised illuminated elements, with animation diversification enabled by software. The company also presents radar and LiDAR integration in headlamps, offering a stylish combination of illuminated surfaces and sensing functions, ensuring benefits for customers in terms of processes, safety and design.

Other technologies showcased by the company include **solutions for emissions reduction**, integrating competences from after-treatment and powertrain systems. In this area, Marelli displays the innovative gasoline Burner System solution for Catalyst fast warm-up. Further solutions in this field include the Compact Exhaust Gas Recirculation (EGR) valve with advanced DC motor control, as well as high-performance, lightweight Heat Energy Recovery System with smart in-house design.



Finally, Marelli's booth at IZB features some of the company's most **advanced suspension technologies**, such as the **rear axle carrier for electric engine** with hydroformed tubes developed for a premium German OEM, representing the first technical application for Marelli suspensions in the full electric vehicle market. Thanks to a specific production process and a careful design, with an optimized stiffness of the frame, the solution ensures several benefits, including better vehicle handling and high acoustic and vibrational damping.

About Marelli

Marelli is one of the world's leading global independent suppliers to the automotive sector. With a strong and established track record in innovation and manufacturing excellence, our mission is to transform the future of mobility through working with customers and partners to create a safer, greener, and better-connected world. With around 50,000 employees worldwide, the Marelli footprint includes 170 facilities and R&D centres across Asia, the Americas, Europe, and Africa, generating revenues of 1,380 billion JPY (10.6 billion EUR) in 2021.