



Press Release

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Marelli named Top Innovator at CLEPA Innovation Awards with h-Digi® microLED lighting technology

Marelli has been named a 'Top Innovator' at the **Innovation Awards 2024 by CLEPA** – the European Association of Automotive Suppliers – with its **h-Digi® microLED** technology, a cutting-edge headlight solution that enhances safety at affordable costs, enabling adoption across a wide range of vehicles. The technology was honored in the 'Digital' category, during a ceremony held on December 4th in Brussels.

The CLEPA Innovation Awards recognize and celebrate ground-breaking ideas in green and digital technology across the automotive supply industry. This marks the second consecutive year that Marelli has been awarded by CLEPA for its innovations in the 'Digital' category (after being honored in 2023 for its HorizonView head-up display). This category recognizes smart solutions within the mobility ecosystem, driven by digitalization.

Based on a new intelligent multipixel LED matrix light source, Marelli's h-Digi® microLED module enables fully adaptive, dynamic headlight operation and high-resolution image projection on the road for driver assistance in a more affordable, compact, lightweight module than any other solution currently on the market.

The h-Digi® microLED modulates the light pattern according to objects that are detected through a combination of cameras and sensors, making night-time driving safer – also thanks to full beam lighting that reduces glare for all road users. This innovation expands the availability of high-resolution Adaptive Driving Beams (ADB), making this affordable safety feature more accessible to the market.

With pixels smaller than 0.1 degree, the resolution of the illumination matrix system is 10 times greater than that of conventional LED glare-free high beam systems and creates a significantly longer illumination range, thus improving safety. The high-resolution system offers benefits also in the low beam mode, as it provides the opportunity for adaptive lighting functions, like dynamic light bending on country roads, or special light patterns on highways during high-speed driving, and also adaptive lighting in adverse weather situations. In addition, each h-Digi® microLED can project graphics onto the road in the driver's line of sight to communicate safety messages, warnings or simple driver assistance patterns such as lane guides. The solution also offers the opportunity for individualization and, potentially, also personalization through attractive "welcome" and "leaving home" projections.

The compact design of the module results in high energy efficiency. Two micro-LED options are available: one of 25,600 pixels configured in an aspect ratio of 1:4, the other of 19,200 pixels configured as an aspect ratio of 1:3. The lighting source is combined with a special optical lens system and a new electronic control, both engineered in-house by Marelli.



“The CLEPA ‘Top Innovator’ Award is a fantastic recognition for us as technology leader in lighting. We have created a unique customer experience with our digital light solutions”, said Frank Huber, President of Marelli’s Automotive Lighting & Sensing business. “Our extremely efficient h-Digi® microLED sets new standards in road safety and driving comfort at an affordable cost. I am proud of our teams and our successful co-creation with customers & partners.”

About Marelli

Marelli is a leading mobility technology supplier 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 centers across Asia, the Americas, Europe, and Africa.