

# Exceed Possibilities: HELLA presents lighting and electronic solutions for future mobility at IAA 2019

- Innovative Dual Voltage Battery for mild hybrids enables significant CO<sub>2</sub> savings
- New road condition sensor extends sensor portfolio for automated driving scenarios
- New high-resolution digital headlamp technology opens up a wide range of applications
- Holistic solutions for the vehicle front and the interior of the future jointly developed with partners

**Lippstadt/Frankfurt, 10 September 2019.** "Exceed Possibilities" – this is the motto of the globally positioned automotive supplier HELLA at this year's IAA in Frankfurt. The focus of the HELLA presentation is on innovative solutions for the key market trends electrification and autonomous driving. Future concepts and product highlights of the lighting and electronics expert can be experienced from 10 to 15 September 2019 in the exhibition area of the New Mobility World (Hall 5, Stand B06).

"The transformation of mobility towards autonomous driving and electric mobility is progressing inexorably. HELLA's core competencies in lighting technology and electronics play a central role in this process," says HELLA CEO Dr. Rolf Breidenbach. "With our innovative product solutions, we want to contribute to making tomorrow's mobility safer, more comfortable and more environmentally friendly. At this year's IAA, we will illustrate this with numerous selected product highlights and concepts for the future."

### Innovative Dual Voltage Battery for mild hybrids enables significant CO2 savings

Against this background, HELLA accompanies customers holistically on their way to electromobility. The basis for this is a comprehensive product range for all electrification stages. At the IAA 2019, HELLA will be focusing in particular on its expertise as a

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component and subsystem supplier and presents, for example, new battery module solutions for the rapidly growing market of 48 volt mild hybrids.

A core product in this context is the Dual Voltage Battery Management System, for which HELLA received the Automotive INNOVATIONS Award 2019. It combines the functions of a 48 volt and 12 volt battery (including Low Voltage Battery Management) within a single product in the installation space of a conventional 12 volt battery. The new battery module solution saves weight and space and can be conveniently integrated into existing vehicle architectures. The intelligent circuit of the cells allows the capacity of the Li-Ion batteries to be used in the 12 volt or 48 volt vehicle electrical system, depending on the application. The solution is primarily designed for compact and mid-range class and can help reduce CO<sub>2</sub> emissions by 5 to 6 grams per kilometer. Series production is expected to start in 2023.

### New road condition sensor extends sensor portfolio for automated driving scenarios

At the occasion of the IAA, HELLA is also presenting a new sensor with which the condition of the road surface can be determined. The structure-borne sound sensor SHAKE (abbreviation for Structural Health And Knock Emission) is able to detect the condition of the road on the basis of even the smallest touches (e.g. vibrations of water drops whirled up) and to alert the driver for example of aquaplaning. As the SHAKE sensor determines road condition information in real time and perspectively can share such information with other vehicles, it is also a necessary component for implementing automated driving functions.

With the SHAKE sensor, electronics expert HELLA expands its extensive sensor portfolio. With powerful radar sensors and front camera software, HELLA already offers essential core technologies for assisted and automated driving. In this context, HELLA pursues a flexible, scalable platform approach that realizes cost-optimized NCAP functionalities as well as more sophisticated functions for higher automation levels. In

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cooperation with the US start-up AEye, HELLA is also stepping up its development activities in the field of LiDAR sensors.

## New high-resolution digital headlamp technology opens up a wide range of applications

With the "Digital Light SSL|HD", HELLA is also showcasing the latest generation of high-resolution digital headlamp technology at the IAA. It is expected to be launched within the next three years. "Digital Light SSL|HD" is a further development and miniaturization of existing Matrix LED systems. The more than 15,000 LED pixels of the fingernail-sized light source can be individually controlled and are the basis for flexibly programmable lighting functions. On this basis, additional light-based security functions, such as an optical lane assistant, can be implemented, as can welcome scenarios or further forms of personalization. At the same time, this technology opens up new perspectives for digital business models, such as an app-based control or on a pay-peruse basis.

# Holistic solutions for the vehicle front and the interior of the future jointly developed with partners

In addition, HELLA is presenting new lighting concepts for the vehicle body and interior. Among other things, they support the trend towards autonomous driving. For example, lighting modules on the vehicle exterior can contribute to communication between self-driving cars and other road users. With Plastic Omnium, HELLA is also working on holistic concepts for the integration of lighting technologies into the vehicle body as part of the "Front of the Car" approach. In cooperation with Faurecia, HELLA is furthermore presenting pioneering concepts for the vehicle interior of the future at the IAA with a demonstration vehicle. After all, the vehicle interior will be redefined in the course of autonomous driving, so that a multitude of new functionalities and adaptation options to the different needs of occupants and the respective driving situation must be provided.

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**HELLA Press Conference:** Wednesday, 11 September 2019, 10.00-10.25 a.m. (local time), with HELLA CEO Dr. Rolf Breidenbach, at the HELLA Stand

Experience HELLA at the IAA in the "New Mobility World" until 15 September 2019 (Hall 5, Stand B06).

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**HELLA GmbH & Co. KGaA, Lippstadt:** HELLA is a global, family-owned company, listed on the stock exchange, with over 125 locations in some 35 countries. With sales of € 7.0 billion in the fiscal year 2018/2019 and 39,000 employees, HELLA is one of the leading automotive suppliers. HELLA specializes in innovative lighting systems and vehicle electronics and has been an important partner to the automotive industry and aftermarket for more than a century. Furthermore, in its Special Applications segment, HELLA develops, manufactures and sells lighting and electronic products for specialist vehicles.

#### For additional information please contact:

Dr Markus Richter Company spokesman HELLA GmbH & Co. KGaA Rixbecker Strasse 75 59552 Lippstadt Germany

Phone: +49 (0)2941 38-7545 Fax: +49 (0)2941 38-477545 Markus.Richter@hella.com

www.hella.com