



Technology with Vision

A large, abstract circular graphic composed of numerous thin, overlapping lines in shades of yellow and blue, creating a sense of motion and depth. The lines are arranged in a roughly circular pattern, with some lines extending slightly beyond the main circle.

EXCEED POSSIBILITIES

**HELLA** Press Conference **IAA** 2019 September 11 10:00 – 10:25 am

**Dr. Rolf Breidenbach (CEO)**

# Major directions towards the mobility of tomorrow

**01** The mobility of the future will be emission-free

**02** The driver will become a passenger

**03** Automotive lighting will be digital

**04** China will accelerate the industry change

**05** Tomorrow's mobility will be shaped together

**01** 02 03 04 05

**The mobility of the future  
will be emission-free**

# HELLA approach: Solutions for all stages of electrification

**A** Voltage converters and intelligent components for battery sensing

**B** Pioneering battery module solutions for mild hybrids

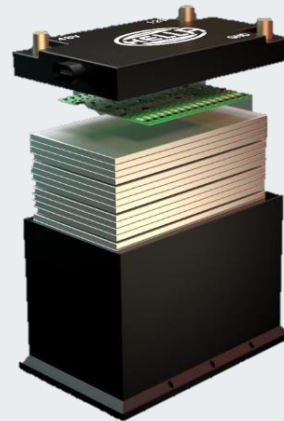
**C** Battery and power electronics for high-voltage applications



# Innovation highlight: New battery solution for mild hybrids enables CO2 savings

## DUAL VOLTAGE BATTERY MANAGEMENT SYSTEM

- Integrates the separate core elements such as 48V battery, 12V battery and voltage converter within a single product
- Patented, intelligent switching of lithium-ion cells



→ Start of series production expected for 2023

## CUSTOMER BENEFIT

- Savings in weight, space and complexity; fits into space of conventional 12V battery
- Elimination of lead-acid-battery
- Convenient integration into existing vehicle infrastructures; especially relevant for the compact and middle class

Enables savings of 5 to 6  
grams of CO2 per kilometer  
driven

01 02 03 04 05

**The driver will become  
a passenger**



# HELLA approach: Core technologies for automated driving

- A** Component supplier with a full sensing portfolio, e.g. radar, camera software
- B** Steering technology for automated driving solutions
- C** Lighting concepts as enablers for AD functionalities



# Innovation highlight: Road condition sensor enhances driving safety

## SHAKE SENSOR

- Recognizes **vibrations** on its **contact surface** via **piezoelectric elements**
- **Intelligent interpretation** of sensor data **leads to various functionalities** and **cloud-based services**, e.g. road condition sensing



→ In **series production** since **end of 2018**

## CUSTOMER BENEFIT

- Enhances **driving safety**
- **Complements** existing **driver assistance systems**
- **Enables autonomous driving functionalities (L3+)** and **future services**, e.g. highway pilot
- Can be tailored to further **specific customer requirements**, e.g. predictive maintenance



Road condition sensor



01 02 **03** 04 05

**Automotive lighting will  
be digital**

# HELLA approach: Tailored lighting solutions for all car segments

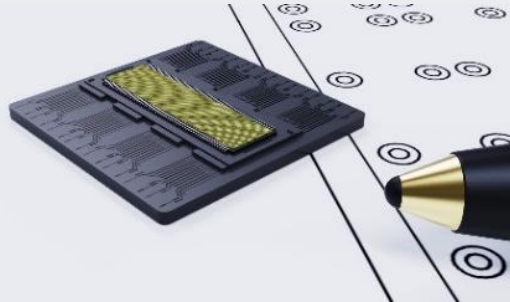
- A** Matrix LED headlamps for volume and premium segment
- B** Styling-oriented technologies for rear combination lamps
- C** Holistic interior and car body lighting solutions



# Innovation highlight: HELLA launches the next generation of headlamp technology

## DIGITAL LIGHT SSL|HD

- Further development and miniaturization of existing Matrix LED systems
- Over 15,000 LED pixels can be individually controlled



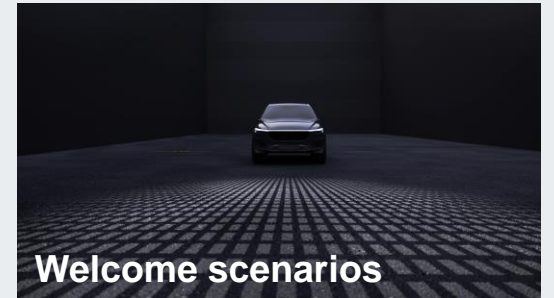
→ Market launch within the next three years

## CUSTOMER BENEFIT

- Higher efficiency
- Realization of additional functionalities for **safety** and **individualization**, e.g.



Optical lane assistant



Welcome scenarios

- Development of new business models, e.g. App-controlled features, Pay-per-Use

01 02 03 **04** 05

**China will accelerate  
the industry change**



# HELLA approach: In China – for China

- A** Specific product solutions for the Chinese market
- B** Powerful development and production footprint
- C** Dedicated collaboration network with local partners



01 02 03 04 **05**

**Tomorrow's mobility will  
be shaped together**



# HELLA approach: Global network strategy

- A** Established joint venture network worldwide
- B** Open and flexible collaborations with powerful industry partners
- C** Global incubator network and innovation ecosystems



# Cooperation highlight: Holistic integration of lighting and electronic components into the vehicle front

STRATEGIC  
COLLABORATION  
WITH PLASTIC  
OMNIUM



## “FRONT OF THE CAR”



- **Holistic exterior system** with **integrated** components
- **Individual integration levels** allow for a **customizable system setup** based on customer needs
- Cooperation with Plastic Omnium allows **high coverage along the value chain**
- **Additional collaboration areas** possible

## CUSTOMER BENEFIT

- **Individual design possibilities** for exceptional brand appearances
- **Cost reduction potential** by reducing number of interfaces and parts
- **“One-Team” approach** allows for efficient and optimized fulfillment of customer requirements

# Cooperation highlight: Innovative concepts for interior lighting in the cockpit of the future

STRATEGIC  
COLLABORATION  
WITH FAURECIA

▪ **faurecia**

## “COCKPIT OF THE FUTURE”



- Interior lighting solutions for a comprehensive personalized cockpit experience
- Joint development of Faurecia and HELLA with focus on the integration of surface-lighting and dynamic-lighting in vehicle interior solutions

## CUSTOMER BENEFIT

- **Combination of innovative illumination with functional interior solutions** (e.g., driver's info/warning, dynamic effects)
- **Cost saving opportunities** by reducing the number of interfaces/parts, optimized manufacturing efforts, and advanced packaging/logistics
- Joint forces enable **accelerated development process** and an **earlier market readiness**

# HELLA is well prepared for the future of mobility

- 01 Solutions for all stages of electrification**
- 02 Core technologies for automated driving**
- 03 Tailored lighting solutions for all car segments**
- 04 In China – for China**
- 05 Global network strategy**



EXCEED POSSIBILITIES

# Thank you

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[\*\*www.hella.com/press\*\*](http://www.hella.com/press)