HELLA GmbH & Co. KGaA

Bankhaus Lampe Deutschlandkonferenz

Baden Baden, April 2019
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This document contains an English translation of the accounts of the Company and its subsidiaries. In the event of a discrepancy between the English translation herein and the official German version of such accounts, the official German version is the legal valid and binding version of the accounts and shall prevail.
HELLE Presentation German Conference April 2019

Outline

- HELLA Financial Results H1 FY 2018/19
- HELLA at a Glance
- HELLA’ Strategy
- HELLA’s View on Automotive Market Trends
Positive sales growth and EBIT increase in H1 FY 2018/19
Financial Results H1 FY 2018/19

Sales
- HELLA Group currency and portfolio adjusted sales grew by 7.3% YoY to 3.5 bill. EUR

Profitability
- Adj. Gross Profit margin at 28.0% (+0.4%-points YoY)
- Adj. EBIT +16 mill. EUR (+5.5% YoY) at 302 mill. EUR
- Adjusted EBIT margin -0.1pp to 8.6%

Liquidity
- Adjusted Free Cash Flow from operating activities increased by 45 mill. EUR (+42% YoY) to 152mill. EUR

Note: Adjusted P&L and Balance Sheet figures for FY 17/18 and FY 18/19 exclude items from the Wholesale distribution. Adjustments of profitability figures for all years include restructuring expenses. For details see financial report. Please note that where sums and percentages in the presentation have been rounded, differences may arise as a result of commercial rounding.
HELLA top line growth with positive development in H1 FY 18/19
Financial Results H1 FY 2018/19

HELLA Group sales (EUR millions)

Comment

- **Currency** (-0.4pp) and portfolio (-4.1pp) adjusted growth HELLA Group at 7.3%
- **Reported** sales growth HELLA Group at 2.8% (increased by 97.7 mill. EUR to 3,550 mill. EUR)
  - Automotive +8.1% to 2,864 mill. EUR. Demand for energy management products, radar solutions and advanced lighting systems drives business.
  - Aftermarket* +4.5% to 336 mill. EUR, positive driven by strong Workshop product sales
  - Special Applications -3.7% to 204 mill. EUR with positive development mainly in the core business for agricultural and construction vehicles, as well as for trailers

*Wholesale sales excluded
Automotive outperforming LVP in all regions
Financial Results H1 FY 2018/19

HELLEA Automotive external sales by region (in EUR millions)

<table>
<thead>
<tr>
<th>Region</th>
<th>Global</th>
<th>Europe</th>
<th>North &amp; South America</th>
<th>Asia &amp; RoW</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 FY 15/16</td>
<td>2,392</td>
<td>1,619</td>
<td>409</td>
<td>364</td>
</tr>
<tr>
<td>H1 FY 16/17</td>
<td>2,406</td>
<td>1,560</td>
<td>442</td>
<td>404</td>
</tr>
<tr>
<td>H1 FY 17/18</td>
<td>2,623</td>
<td>1,629</td>
<td>533</td>
<td>462</td>
</tr>
<tr>
<td>H1 FY 18/19</td>
<td>2,841</td>
<td>1,758</td>
<td>602</td>
<td>481</td>
</tr>
</tbody>
</table>

Light vehicle production (in million units)

<table>
<thead>
<tr>
<th>Region</th>
<th>Global</th>
<th>Europe</th>
<th>North &amp; South America</th>
<th>Asia &amp; RoW</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 FY 15/16</td>
<td>44.1</td>
<td>10.5</td>
<td>22.4</td>
<td>25.1</td>
</tr>
<tr>
<td>H1 FY 16/17</td>
<td>47.1</td>
<td>10.7</td>
<td>25.1</td>
<td>25.6</td>
</tr>
<tr>
<td>H1 FY 17/18</td>
<td>47.9</td>
<td>11.1</td>
<td>-1.6%</td>
<td>-2.6%</td>
</tr>
<tr>
<td>H1 FY 18/19</td>
<td>46.8</td>
<td>-3.6%</td>
<td>+1.4%</td>
<td>+6.8%</td>
</tr>
</tbody>
</table>

HELLEA Automotive growth vs. market (Light vehicle production growth):

-6.4% +7.4% +10.6% -5.7% +1.5% +11.6% +7.9% +23.4% +11.6% -0.6% +12.0% +6.8%

Source: HELLEA; IHS (as of December 2018)
GPM increase due to strong overall business development
Financial results H1 FY 2018/19

Adj. Gross Profit

<table>
<thead>
<tr>
<th>Period</th>
<th>Adj. Gross Profit (EUR millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 FY 15/16</td>
<td>861</td>
</tr>
<tr>
<td>H1 FY 16/17*</td>
<td>874 (+13)</td>
</tr>
<tr>
<td>H1 FY 17/18*</td>
<td>912 (+37)</td>
</tr>
<tr>
<td>H1* FY 18/19</td>
<td>987 (+75)</td>
</tr>
</tbody>
</table>

Adj. Gross Profit margin

<table>
<thead>
<tr>
<th>Period</th>
<th>Adj. Gross Profit margin (% sales)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 FY 15/16</td>
<td>27.2</td>
</tr>
<tr>
<td>H1 FY 16/17*</td>
<td>27.3 (+0.1)</td>
</tr>
<tr>
<td>H1 FY 17/18*</td>
<td>27.6 (+0.3)</td>
</tr>
<tr>
<td>H1 FY 18/19</td>
<td>28.0 (+0.4)</td>
</tr>
</tbody>
</table>

Highlights

- **Adj. Gross Profit increased** by 75 mill. EUR (+8.3%) to 987 mill. EUR
  - **Automotive** +9.0% to 738 mill. EUR
  - **Aftermarket** +7.0% to 119 mill. EUR
  - **Special Applications** +8.6% to 81 mill. EUR

- **Adj. Gross Profit margin** improved by 0.4%-points to 28.0%
  - higher GPM Automotive (+0.2pp) due to higher volumes compensating higher raw material & personal costs
  - increased GPM in Aftermarket (+0.8pp) due to Workshop sales
  - higher GPM in Special Applications (+4.5pp) due growth in the core business

*Restated for the reclassification of costs.
Continuous high R&D expenses to expand leading technological positioning and secure future growth
Financial Results H1 FY 2018/19

R&D expenses
EUR millions

<table>
<thead>
<tr>
<th></th>
<th>H1 FY 15/16</th>
<th>H1 FY 16/17</th>
<th>H1 FY 17/18</th>
<th>H1 FY 18/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018/19</td>
<td>291</td>
<td>280</td>
<td>305</td>
<td>340</td>
</tr>
</tbody>
</table>

R&D expenses ratio
% sales

<table>
<thead>
<tr>
<th></th>
<th>H1 FY 15/16</th>
<th>H1 FY 16/17</th>
<th>H1 FY 17/18</th>
<th>H1 FY 18/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018/19</td>
<td>9.2</td>
<td>8.8</td>
<td>9.2</td>
<td>9.6</td>
</tr>
</tbody>
</table>

Highlights

- **Absolute R&D** expenses increased by 35 mill. EUR (+11.4% YoY) to **340 mill. EUR**, mainly:
  - secure and strengthen technology leadership along the market trends
  - preparation and realization of production ramp-ups
  - continuous development of international R&D capacities

- **H1 FY 18/19** ratio +0.4pp to **9.6%** due to over-proportional increase in absolute R&D expenses

*Restated for the reclassification of costs.
SG&A costs with slight increase due to continuous investments
Financial Results H1 FY 2018/19

**Adj. SG&A expenses**

<table>
<thead>
<tr>
<th></th>
<th>EUR millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 FY 15/16</td>
<td>338</td>
</tr>
<tr>
<td>H1 FY 16/17*</td>
<td>359</td>
</tr>
<tr>
<td>H1 FY 17/18*</td>
<td>343</td>
</tr>
<tr>
<td>H1 FY 18/19</td>
<td>370</td>
</tr>
</tbody>
</table>

*Restated for the reclassification of costs.

**Highlights**

- **Adj. SG&A costs** increased (+27 mill. EUR, +7.9%) to 370 mill. EUR
  - higher logistic costs (+16 mill. EUR)
  - higher admin expenses (+10 mill. EUR) with continuous investments in processes, systems and functions
  - lower other adj. income (-1.7 mill. EUR) and expenses due to positive one-offs in PY

**Adj. SG&A expenses ratio**

<table>
<thead>
<tr>
<th></th>
<th>% sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 FY 15/16</td>
<td>10.7</td>
</tr>
<tr>
<td>H1 FY 16/17*</td>
<td>11.2</td>
</tr>
<tr>
<td>H1 FY 17/18*</td>
<td>10.4</td>
</tr>
<tr>
<td>H1 FY 18/19</td>
<td>10.5</td>
</tr>
</tbody>
</table>

**Highlights**

- **Adj. SG&A ratio** increased (+0.1ppt) to 10.5% due to over-proportional increase in absolute SG&A expenses
Adjusted EBIT above prior-year’s level
Financial results H1 FY 2018/19

**Adjusted EBIT**

<table>
<thead>
<tr>
<th>EUR millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 FY 14/15</td>
</tr>
<tr>
<td>H1 FY 15/16</td>
</tr>
<tr>
<td>H1 FY 16/17</td>
</tr>
<tr>
<td>H1 FY 17/18</td>
</tr>
</tbody>
</table>

**Adjusted EBIT margin**

<table>
<thead>
<tr>
<th>% sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 FY 14/15</td>
</tr>
<tr>
<td>H1 FY 15/16</td>
</tr>
<tr>
<td>H1 FY 16/17</td>
</tr>
<tr>
<td>H1 FY 17/18</td>
</tr>
</tbody>
</table>

**Highlights**

- **Adjusted EBIT** increased by 16 mill. EUR (+5.5%) to **302 mill. EUR**:
  - increase in adj. Gross Profit by 75 mill. EUR (+8.3%)
  - higher R&D (+35 mill. EUR, +11.4%)
  - increase in adj. SG&A (mainly distribution) by 27 mill. EUR (+7.9%)
  - increase in JV income by 2 mill. EUR (+8.5%)

- **Adj. EBIT margin decreased** by 0.1%-points to 8.6%:
  - increase of adj. GPM by 0.4pp
  - higher R&D expenses (+0.4pp)
  - higher SG&A (+0.1pp)
# P&L including reconciliation

## Financial Results H1 FY 2018/19

### FY comparison

<table>
<thead>
<tr>
<th>HELLA GROUP</th>
<th>H1 FY 17/18</th>
<th>H1 FY 18/19</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gross Profit</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reported</td>
<td>959.6</td>
<td>997.0</td>
</tr>
<tr>
<td>Adjustments</td>
<td>-48.1</td>
<td>-10.0</td>
</tr>
<tr>
<td>adjusted</td>
<td>911.5</td>
<td>986.9</td>
</tr>
<tr>
<td><strong>Other income and expenses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reported</td>
<td>7.9</td>
<td>257.1</td>
</tr>
<tr>
<td>Adjustments</td>
<td>1.8</td>
<td>-249.1</td>
</tr>
<tr>
<td>adjusted</td>
<td>9.7</td>
<td>8.0</td>
</tr>
<tr>
<td><strong>Distribution</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reported</td>
<td>284.6</td>
<td>276.3</td>
</tr>
<tr>
<td>Adjustments</td>
<td>-43.2</td>
<td>-19.0</td>
</tr>
<tr>
<td>adjusted</td>
<td>241.4</td>
<td>257.3</td>
</tr>
<tr>
<td><strong>Admin</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reported</td>
<td>111.6</td>
<td>126.5</td>
</tr>
<tr>
<td>Adjustments</td>
<td>0.0</td>
<td>-5.3</td>
</tr>
<tr>
<td>adjusted</td>
<td>111.6</td>
<td>121.2</td>
</tr>
<tr>
<td><strong>EBIT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reported</td>
<td>289.5</td>
<td>536.8</td>
</tr>
<tr>
<td>Adjustments</td>
<td>-3.1</td>
<td>-234.8</td>
</tr>
<tr>
<td>adjusted</td>
<td>286.4</td>
<td>302.0</td>
</tr>
<tr>
<td><strong>Net financial result</strong></td>
<td>-22.9</td>
<td>-25.0</td>
</tr>
<tr>
<td><strong>Taxes</strong></td>
<td>-68.0</td>
<td>-68.2</td>
</tr>
<tr>
<td><strong>Earnings for the period</strong></td>
<td>198.6</td>
<td>443.6</td>
</tr>
<tr>
<td><strong>Earnings per share (EUR)</strong></td>
<td>1.78</td>
<td>3.99</td>
</tr>
</tbody>
</table>

*Reported H1 FY 17/18 restated for the reclassification of R&D costs. For details see financial report.

### Comments

- Reported EBIT H1 FY 18/19 increased by 247 mill. EUR, thereof + 255 mill. EUR profit from WD.

- Net financial result increased slightly with higher obligations from leasing.

- Earnings for the period increased driven by growth and profit from Wholesale.

- Result driven higher tax payments, tax expense ratio excluding profit from Wholesale disposal relatively stable compared to FY 17/18 (26.6%).

- EPS increased by 2.21 EUR (+124%) to 3.99 EUR.
Q2 FY 18/19 Automotive business with lower growth dynamics and margin pressure
Financial Results H1 FY 2018/19

Quarterly comparison

<table>
<thead>
<tr>
<th>Segment Total Sales growth (YoY)*</th>
<th>Q2 FY 17/18</th>
<th>Q2 FY 18/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive</td>
<td>12.1%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Aftermarket</td>
<td>13.6%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Special Applications</td>
<td>-7.7%</td>
<td>-7.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adj. EBIT Margin</th>
<th>Q2 FY 17/18</th>
<th>Q2 FY 18/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive</td>
<td>10.4%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Aftermarket</td>
<td>7.1%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Special Applications</td>
<td>6.9%</td>
<td>13.8%</td>
</tr>
</tbody>
</table>

Comments

- Lower Automotive growth dynamics in Q2 FY 18/19, mainly due to weak Chinese market
- Aftermarket with modest total sales growth, IAM influenced by weak development in selective markets like Turkey and Middle East, Workshop products growing +60%
- Special Applications negative due to pre-drawn effects from PY. Growing agricultural, construction, and truck/trailer business. Adj. sales growth by 4.2%
- Q2 FY 18/19 Automotive margin affected by increasing raw material & personal expenses which could not been compensated due to lower growth and increasing R&D
- Aftermarket adjusted EBIT margin declined due to (product) mix effects
- Q2 FY 18/19 adj. EBIT Special Applications due to strong product mix

* Q2 FY 16/17 Aftermarket not comparable due to disposal of Wholesale distribution
Adj. Free Cash Flow from operating activities increased with improved Working Capital consumption
Financial Results H1 FY 2018/19

Adj.\(^1\) FCF from operating activities

<table>
<thead>
<tr>
<th></th>
<th>EUR millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 FY 15/16</td>
<td>102</td>
</tr>
<tr>
<td>H1 FY 16/17</td>
<td>-27.7%</td>
</tr>
<tr>
<td>H1 FY 17/18</td>
<td>+45.4%</td>
</tr>
<tr>
<td>H1 FY 18/19</td>
<td>+41.5%</td>
</tr>
</tbody>
</table>

Highlights
- Adj. Free Cash Flow from operating activities increased by 45 mill. EUR to 152 mill. EUR, mainly due to a lower working capital consumption
- Cash Conversion\(^3\) ratio increased by 12.8pp to 50.4%

Adj. Net CAPEX\(^2\)

<table>
<thead>
<tr>
<th></th>
<th>EUR millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 FY 15/16</td>
<td>189</td>
</tr>
<tr>
<td>H1 FY 16/17</td>
<td>208</td>
</tr>
<tr>
<td>H1 FY 17/18</td>
<td>212</td>
</tr>
<tr>
<td>H1 FY 18/19</td>
<td>243</td>
</tr>
</tbody>
</table>

Highlights
- Continuous investments in customer-specific equipment and capacity extensions
- No reimbursements included (in H1 FY 17/18 76 mill. EUR)

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1) Adjustments of FCF include restructuring expenses, factoring (Q1 FY 16/17 only) and payments received/made in in connection with the sale of shares in FTZ and INTER-TEAM
2) In accordance with IFRS 15 reimbursement not deducted from CAPEX in H1 FY 18/19, prior year have not been adjusted.

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Automotive segment with increasing growth, profitability under pressure
Financial Results H1 FY 2018/19

**Automotive Sales**
- **Growth** of 8.1% with ongoing production **ramp-ups** and **higher demand** for:
  - energy management and driver assistance products
  - innovative / advanced lighting products
  - Demand driven by NSA and Europe (ex. Germany)

**Automotive Profitability**
- **Increase** of adj. EBIT by 2.7% to 244 mill. EUR, mainly:
  - increase in **Gross Profit**, increasing volumes compensating higher raw material and personal expenses especially in Q1, GPM +0.2pp
  - increase in **R&D** to strengthen technology leadership along the megatrends and to prepare production ramp-ups, R&D ratio + 0.4pp
  - increase in **distribution** expenses (+12.2%) ratio + 0.1pp to 3.5%, including one time efforts for acquiring new customer projects
Non Automotive segments with positive contributions
Financial Results H1 FY 2018/19

**Aftermarket**
- **Total sales** growth (+4.5%) due to *workshop business* and positive IAM demand
  - Decrease in adj. EBIT margin by 0.1pp to 7.6%
    - Growth in GPM by 0.8pp due to positive mix effects
    - Higher distribution and admin costs ratios (+0.3pp each) mainly event related

**Special Applications**
- **Negative top-line development** (-3.7%):
  - increasing demand in *Construction and Agricultural* sector, other product groups e.g. *Trailer* and *Trucks* also growing
  - **End of production** in *Australia* with negative especially on growth in Q2
- **Profitability up** by 14.3% (excluding Australia closing +16.7%), margin + 2.1pp to 13.3% (excl. Australia + 1.2pp to 13.7%)
  - Underlying business with positive development

*The figures for the Aftermarket segment exclude the items from wholesale distribution.*
HELLA Presentation German Conference April 2019
Outline

- HELLA Financial Results H1 FY 2018/19
- HELLA at a Glance
- HELLA Strategy
- HELLA's View on Automotive Market Trends
As one of the top 40 automotive suppliers worldwide HELLA specializes in innovative lighting systems and vehicle electronics

HELLA at a Glance – Overview

KEY FACTS

- Founded 1899 in Lippstadt (Germany)
- Global footprint with over 40,000 employees at more than 125 locations in some 35 countries
  - Thereof 41 research & 28 production sites
- Integrated business portfolio in Automotive, Aftermarket, and Special Applications
- Leading market positions in automotive Lighting and Electronics
- One of the top 40 automotive suppliers in the world and one of the 100 largest German industrial companies

KEY FINANCIALS

in EUR millions and % of sales

<table>
<thead>
<tr>
<th></th>
<th>FY 2016/17</th>
<th>FY 2017/18*</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>6,585</td>
<td>7,060</td>
<td>+7.2%</td>
</tr>
<tr>
<td>Adjusted EBIT</td>
<td>534</td>
<td>581</td>
<td>+8.8%</td>
</tr>
<tr>
<td>Adjusted EBIT margin</td>
<td>8.1%</td>
<td>8.2%</td>
<td>+0.1% points</td>
</tr>
<tr>
<td>Adjusted Free Cash Flow</td>
<td>149</td>
<td>241</td>
<td>+61.7%</td>
</tr>
</tbody>
</table>

SALES BY BUSINESS SEGMENT

external sales, fiscal year 2017/18*

- Automotive Lighting €3,014 million
- Automotive Electronics €2,368 million
- Aftermarket €1,225 million
- Special Applications €418 million

*Including Wholesalers business

SALES BY REGION

based on the HQs of HELLA’s customers, fiscal year 2017/18*

- Germany €2,134 million
- North & South America €1,221 million
- Asia, Pacific, RoW €1,208 million
- Rest of Europe €2,497 million

*Including Wholesalers business
In the Automotive segment, HELLA develops and produces innovative solutions for automobile manufacturers worldwide.

HELLA at a Glance – Business Segment Automotive

**BUSINESS OVERVIEW***

**Lighting**
- Headlamps
- Rear Combination Lamps
- Small Lamps
- Interior Lighting
- Lighting Electronics

- #1 market position in LED headlamps Europe
- #3-4 global and #1-2 European market position in OE passenger car lighting

**Electronics**
- Components
- Energy Management
- Driver Assistance Systems
- Body Electronics
- Steering

- #2-3 global and #1-2 European market position in defined automotive electronic segments

**AUTOMOTIVE SALES BY CUSTOMERS**

Fiscal year 2016/17

<table>
<thead>
<tr>
<th>Tier X</th>
<th>Asian OEM</th>
<th>US OEM</th>
<th>German OEM</th>
<th>Other***</th>
</tr>
</thead>
<tbody>
<tr>
<td>29%</td>
<td>11%</td>
<td>13%</td>
<td>43%</td>
<td>6%</td>
</tr>
</tbody>
</table>

**EUR 5.4 billion**

**KEY FINANCIALS**

In EUR millions and % of sales

<table>
<thead>
<tr>
<th></th>
<th>FY 2016/17</th>
<th>FY 2017/18</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External Sales</strong></td>
<td>4,980</td>
<td>5,383</td>
<td>+8.1%</td>
</tr>
<tr>
<td><strong>Adjusted EBIT</strong></td>
<td>444</td>
<td>457</td>
<td>+2.8%</td>
</tr>
<tr>
<td><strong>Adjusted EBIT margin</strong></td>
<td>8.8%</td>
<td>8.5%</td>
<td>-0.3% points</td>
</tr>
<tr>
<td>Ext. Sales Lighting</td>
<td>2,788</td>
<td>3,014</td>
<td>+8.1%</td>
</tr>
<tr>
<td>Ext. Sales Electronics</td>
<td>2,191</td>
<td>2,368</td>
<td>+8.1%</td>
</tr>
</tbody>
</table>

**AUTOMOTIVE SALES BY REGIONS**

Fiscal year 2017/18

<table>
<thead>
<tr>
<th>Region</th>
<th>Sales Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>North &amp; South America</td>
<td>€1,112 million</td>
</tr>
<tr>
<td>Germany</td>
<td>€1,827 million</td>
</tr>
<tr>
<td>Asia, Pacific, RoW</td>
<td>€987 million</td>
</tr>
<tr>
<td>Rest of Europe</td>
<td>€1,457 million</td>
</tr>
</tbody>
</table>

*) All figures related to the selected markets and product categories based on HELLA’s portfolio, as covered in an external market study commissioned by HELLA (2014)

**) Adjustments including restructuring expenses

*** Including European OEM (ex Germany) and trucks.
HELLA with a comprehensive offering of automotive parts, diagnostics, and services within Europe

HELLA at a Glance – Business Segment Aftermarket

**BUSINESS OVERVIEW**

**Independent Aftermarket (IAM)**
- Sale of **own and third-party spare parts** to IAM wholesalers
- **Own sales presence in >25 countries**
- **Strong position** of sales network and brand presence in **European market (#1-3)**

**Workshop Equipment**
- Premium provider of **workshop solutions, diagnostic tools** and advanced equipment to garages
- Offering of **professional services**, e.g. technical data/hotline, trainings & financial services
- **market position: #1** 🇩🇪 🇨🇭 🇫🇷 #3 🇪🇺

**KEY FINANCIALS**

<table>
<thead>
<tr>
<th>in EUR millions and % of sales</th>
<th>FY 2016/17</th>
<th>FY 2017/18*</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>1,222</td>
<td>647</td>
<td>n.m.</td>
</tr>
<tr>
<td>Adj. EBIT</td>
<td>73.0</td>
<td>52.6</td>
<td>n.m.</td>
</tr>
<tr>
<td>Adj. EBIT margin</td>
<td>6.0%</td>
<td>8.1%</td>
<td>n.m.</td>
</tr>
<tr>
<td>Sales IAM</td>
<td>553</td>
<td>568</td>
<td>+2.7%</td>
</tr>
<tr>
<td>Sales Garage Equipment</td>
<td>66</td>
<td>67</td>
<td>+2.6%</td>
</tr>
</tbody>
</table>

**STRATEGIC FOCUS**

- **Further strengthen IAM product portfolio**
  e.g. enhance offering of Electronics/ Electrics and universal lighting products, expand partner network, push roll-out of 3rd party products to additional markets

- **Further enhance workshop products and services**
  e.g. set-up new digital offers and software driven business models (remote fleet manager, workshop broker platform), develop calibration solutions for complex cars

*excludes Wholesale business (9 months). Closing September 3, 2018 for FTZ and INTERTEAM
In Special Applications HELLA incorporates the extensive technological expertise in lighting and electronics

**HELLA at a Glance – Business Segment Special Applications**

### BUSINESS OVERVIEW

- Development, production and sale of lighting and electronics products for special vehicle manufacturers
- “Fast follower” of technological innovations in automotive segment along megatrends LED, energy efficiency and safety
- Application of know-how through own research and development resources and dedicated production footprint
- Strong market position in lighting product areas based on long-standing experience, in particular in Europe
- Focusing on a variety of attractive target groups

### KEY FINANCIALS

<table>
<thead>
<tr>
<th></th>
<th>FY 2016/17</th>
<th>FY 2017/18</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>385</td>
<td>430</td>
<td>+11.6%</td>
</tr>
<tr>
<td>EBIT</td>
<td>19.7</td>
<td>48.0</td>
<td>+143.7%</td>
</tr>
<tr>
<td>EBIT margin</td>
<td>5.1%</td>
<td>11.2%</td>
<td>+6.1% points</td>
</tr>
</tbody>
</table>

### STRATEGIC FOCUS

- **Drive further LEDification**
e.g. build-up competences in intelligent lighting solutions, push Visiotech technology, broaden innovative roadmap (LED matrix beam, Shapeline), increase number of vehicle specific lighting projects

- **Boost growth of Electrics / Electronics business**
e.g. extend electronics scope (focus on sensors and actuators), foster cooperation and M&A opportunities

- **Penetrate growing customer segments**
e.g. drive growth in segments mining, power sports, and marine, push solutions for e-cars and small cars, explore further growth potential of truck business
**High financial stability ensures long-term growth perspective and provides freedom for entrepreneurship**

**HELLA at a Glance – Financial Stability**

### Solid capital structure

<table>
<thead>
<tr>
<th>Leverage (Net debt / EBITDA)</th>
<th>Debt and maturity profile*, in millions EUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 13: 0.7x, May 14: 0.6x</td>
<td>May 15: 0.2x, May 16: 0.3x, May 17: 0.3x, May 18: 0.2x</td>
</tr>
<tr>
<td>2020: 500, 2024: 300, 2032: 70, 2033: 105, Other Debt**: 352</td>
<td></td>
</tr>
</tbody>
</table>

### Strategic flexibility

HELLA has a stable and solid financial fundament which forms the basis for its future strategic plans:
- Prudent financial policy throughout the cycle with leverage < 1.0x
- Financing of long-term growth strategy secured
- Well balanced debt portfolio
- New issuing (senior, unsecured / bearer debt) for attractive conditions
- Mid term target: Leverage < 1.0x

### Gearing (Net debt / Equity)

| May 13: 0.3x, May 14: 0.3x | May 15: 0.1x, May 16: 0.1x, May 17: 0.1x, May 18: 0.1x |

**Additional Revolving Credit (2022) of EUR 450m with 10 core banks as back-up facility**

- Capital-market-oriented capital structure with investment grade rating
- **Good liquidity profile** and consistent liquidity management
- **EUR 117m dividends** (1.05EUR/share) paid October 2018
- **Equity ratio at 41.9% and cash & assets at 1,021 mill. EUR**

* As of August, 2018: Euro Bond I: 2.375%, Euro Bond II: 1.00%; Aflac bonds hedged values ** Mostly long term debt; starting with Aug 2018 lease liabilities according to IFRS 16 *** Abbreviation for “American Family Life Insurance Company”

HELLO Presentation German Conference April 2019
Outline

- HELLA Financial Results H1 FY 2018/19
- HELLA at a Glance
  - HELLA Strategy
- HELLA's View on Automotive Market Trends
HELLA’s strategic pillars are valid, but to cope with current market challenges HELLA has to adapt its behavior

HELLA Strategic Perspective

<table>
<thead>
<tr>
<th>STRATEGIC FOUNDATION PILLARS</th>
<th>Short-term</th>
<th>Mid- to long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Technology Leadership</td>
<td>2018/19</td>
<td>2020/21</td>
</tr>
<tr>
<td>Roll-out and further development of core technologies for market trends</td>
<td></td>
<td>Implementation of innovations and new business models</td>
</tr>
<tr>
<td>2019/20</td>
<td></td>
<td>...</td>
</tr>
<tr>
<td>B Market Leadership</td>
<td></td>
<td>2022/23</td>
</tr>
<tr>
<td>Selective strengthening of global presence</td>
<td></td>
<td>Expansion of global market position</td>
</tr>
<tr>
<td>C Resilient Portfolio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business portfolio optimization</td>
<td></td>
<td>Energizing growth in Aftermarket and Special Applications</td>
</tr>
<tr>
<td>D Operational Excellence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strict cost control management</td>
<td></td>
<td>Further optimization of processes and global set-up</td>
</tr>
</tbody>
</table>
### HELLA continues to invest in major market trends to expand innovation leadership and benefit from industry transformation

#### Technology Leadership

<table>
<thead>
<tr>
<th>MAJOR MARKET TRENDS</th>
<th>Short-term</th>
<th>Mid- to long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AUTONOMOUS DRIVING</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Roll-out and further development of core technologies | 2018/19: Strengthen position as component supplier with a complete portfolio in the area of sensing  
- Roll-out of 24 GHz and 77 GHz radar components  
- Realize camera software potential (focus on Levels 1-3)  
- Complete product portfolio, e.g. SHAKE, LiDAR | 2020/21: Expand component strategy with system approach  
- Become subsystem supplier for specific AD functions linking camera software and radar  
- Offer specific functions as software product “on demand”  
- Develop new lighting functionalities for AD scenarios |
| **EFFICIENCY & ELECTRIFICATION** | 2019/20: Focus and strengthen business with components for different powertrain concepts  
- Drive global product roll-out for ICE and hybrids, e.g. DC/DC converters, Intelligent Battery Sensors  
- Roll out specific solutions for fully electrified vehicles, e.g. battery management systems | 2020/21: Enlarge product portfolio with new solutions addressing all stages of electrification  
- Push subsystems for Mild Hybrids, e.g. Dual Voltage Battery Management, PowerPack 48V, On Board Charger  
- Extend business model for Electrical Power Steering, e.g. shift to fail operational ECUs |
| **CONNECTIVITY & DIGITALIZATION** | 2020/21: Roll-out digital product solutions  
- Push market penetration of HD Matrix LED headlamp technologies  
- Introduce new digital diagnostic services for workshops, e.g. digital multifunctional glasses | 2020/21: Offer new digital business models  
- Further leverage digital innovations from HELLA incubator network and ventures ecosystem  
- Introduce new mobility solutions for the Aftermarket, e.g. business models for fleet management and insurances |
| **INDIVIDUALIZATION**        | 2020/21: Push market penetration of lighting-based styling features  
- Introduce customizable interior lighting concepts with RGB LED modules of the second generation  
- Further roll-out of multi-lens-array solutions for light projections, e.g. welcome scenarios | 2022/23: Advance business with comprehensive interior and car body lighting solutions  
- Accelerate interior lighting solutions for a personalized cockpit environment  
- Drive holistic integration of lighting technologies into the vehicle exterior |

---

**HELLA | Bankhaus Lampe Deutschlandkonferenz | April 2019**
### HELLA strengthens its leading position by tailored market strategies and expansion of its global network

#### B Market Leadership

<table>
<thead>
<tr>
<th>MAJOR LEVERS</th>
<th>REGIONAL PRODUCT STRATEGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOOTPRINT</td>
<td></td>
</tr>
<tr>
<td>PARTNERSHIPS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th><strong>Selectives strengthening of global market presence</strong></th>
<th><strong>Expansion of global market position</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>2018/19</td>
<td>2020/21</td>
</tr>
<tr>
<td><strong>Short-term</strong></td>
<td><strong>Mid- to long-term</strong></td>
</tr>
<tr>
<td><strong>Major Lever</strong></td>
<td></td>
</tr>
<tr>
<td><strong>China</strong>: Boost e-mobility solutions, e.g. BMS, 48 DC/DC converters</td>
<td><strong>China</strong>: Enhance growth with core products, e.g. 77 GHz radar, camera software, HV-solutions</td>
</tr>
<tr>
<td><strong>India</strong>: Roll-out of additional product solutions specifically geared to 2/3 wheelers</td>
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</tr>
<tr>
<td><strong>NSA</strong>: Enhance product portfolio with local OEMs, e.g. Energy Management, Radar</td>
<td><strong>NSA</strong>: Explore additional opportunities, e.g. for 2VBM, 77 GHz radar, Lidar, water pump</td>
</tr>
</tbody>
</table>

**Footprint**

- Extension of production footprint for electronics, e.g. opening of new plants in Lithuania and Mexico in 2018, plant extension in Shanghai, opening of new Indian plant in 2019
- Opening of HELLA Incubator in Shanghai

**Electronics**: AEye (Lidar-based solutions), BAIC (Intelligent Connected Infrastructure)

**Lighting**: Faurecia (Interior Lighting), Plastic Omnium (Car Body Lighting)

**Aftermarket**: CarForce (Digital Mobility Solutions)

**Regional Product Strategy**

- **China**: Boost e-mobility solutions, e.g. BMS, 48 DC/DC converters
- **India**: Roll-out of additional product solutions specifically geared to 2/3 wheelers
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- **NSA**: Explore additional opportunities, e.g. for 2VBM, 77 GHz radar, Lidar, water pump
<table>
<thead>
<tr>
<th>FIELD OF COOPERATION</th>
<th>HELLA CONTRIBUTION</th>
<th>PARTNER CONTRIBUTION</th>
<th>SCOPE OF PARTNERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERIOR LIGHTING</td>
<td>Innovative products and proven expertise in the field of interior lighting, e.g. (dynamic) interior lighting solutions to support drivers safety and comfort</td>
<td>faurecia</td>
<td>Innovative solutions for the cars interiors, Expertise as a complete system integrator for vehicles</td>
</tr>
<tr>
<td>CAR BODY LIGHTING</td>
<td>Advanced know-how with respect to light-based styling features and functionalities for the car body exterior</td>
<td></td>
<td>Competence regarding design, development, and assembly of front and rear exterior body systems, Special know-how in plastics processing</td>
</tr>
<tr>
<td>LIDAR</td>
<td>Automotive experience, Know-how in embedded software, Image processing expertise, Industrialization capabilities</td>
<td>AxEYE</td>
<td>iDAR™ technology, new form of intelligent data collection that fuses LIDAR with a low-light HD camera and embedded AI to intelligently capture data at the sensor level</td>
</tr>
</tbody>
</table>
HELLE shapes its Aftermarket and Special Applications business to ensure further growth

Resilient Portfolio

**FOCUS AREAS**

### INDEPENDENT AFTERMARKET (IAM)

- Streamline product range and customer portfolio, e.g. focus on OE competencies lighting/electronics, phase out of thermal management business (Behr Hella Service)
- Slim down organizational set-up, e.g. realignment of global sales organization, standardization of processes
- Closer linkage of IAM and workshop business, e.g. alignment of marketing/sales activities, use of diagnosis data to optimize IAM portfolio

### WORKSHOP PRODUCTS

- Further roll-out of innovative diagnostics and calibration solutions, e.g. camera and sensor calibration tool
- Integrate advanced data analytics/AI in diagnostics and combine with new service portfolio, e.g. digital multifunction glasses for workshops
- Enhance organizational set-up to drive digital mobility solutions, e.g. dedicated business unit formed

### SPECIAL APPLICATIONS

- Portfolio shift towards new LED and Electronics/Electric solutions, e.g. intelligent lighting systems, Body Actuators for various customer applications
- Build-up of additional R&D resources for consistent customization of products and further innovations to accomplish future ambitions
- Complexity reduction and active life cycle management, e.g. closure of Australian plant

**Short-term**

<table>
<thead>
<tr>
<th>2018/19</th>
<th>2019/20</th>
<th>2020/21</th>
<th>...</th>
<th>2022/23</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business portfolio optimization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Energizing growth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Mid- to long-term

- Further growth in key product categories, e.g. Electrics/Electronics with expanded range and external partnerships, growth in universal lighting
- Further standardize IAM organization and processes, e.g. increase EDI share (Electronic Data Interchange), roll-out B2B web shops for smaller customers
- Push new distribution channels, e.g. e-commerce and intermediates

- Grow with future repair solutions with new diagnostic/calibration technologies, e.g. shift towards software and automate certain diagnostics
- Further develop future mobility solutions, e.g. data as a service for fleets, workshops and insurances, automated data analytics and repair recommendations
- Develop new service portfolio, e.g. pay-per use, enhanced user interface of diagnostic tools

- Acceleration of E/E growth with application of electronic products and new developments
- Further push vehicle specific lighting solutions for highway and off-highway
- Additional strengthening of market position through partnerships and M&A, e.g. in the area of Electric/Electronics

**Deep dive**
## HELLA strengths its global competitiveness by continuously advancing its corporate set-up and processes

### Operational Excellence

<table>
<thead>
<tr>
<th>KEY LEVERS</th>
<th>Short-term</th>
<th>Mid- to long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018/19</td>
<td>2019/20</td>
</tr>
<tr>
<td><strong>STRUCTURE</strong></td>
<td>Strict cost control management</td>
<td>Further optimization of processes and global set-up</td>
</tr>
<tr>
<td>- Continuous improvement of development processes</td>
<td>- Further strengthening of purchasing power, e.g. consolidation of global supplier base, partnerships</td>
<td></td>
</tr>
<tr>
<td>- Optimization of production planning</td>
<td>- Implementation of fully-fledged global Shared Service Organization with defined process ownership, stringent task split and responsibilities</td>
<td></td>
</tr>
<tr>
<td>- stricter release process for procurement of indirect materials and services</td>
<td>- Further investments in IT systems and new applications, e.g. roll-out of SAP S/4 HANA</td>
<td></td>
</tr>
</tbody>
</table>

| **PROCESS** | 2018/19    | 2019/20 |
| - Realignment of global headcount planning in line with flattening industry outlook | - Roll-out of smart automation strategy e.g. integration of collaborative robots, fully-automated preproduction, modular assembly lines |
| - Focusing of worldwide training activities on necessary technical skills | - Implementation of “HELLEA process house” with globally harmonized business processes |
| - Enhancement of virtual collaboration by roll-out of new digital tools | - Implementation of advanced systems to digitalize RfQ process and ensure “guided buying” |

| **PEOPLE** | 2018/19    | 2019/20 |
| - Focusing of worldwide training activities on necessary technical skills | - Further expansion of global talent pool for core functions and growth areas |
| - Continuous optimization of work assignment within global HELLEA network | - Roll-out of targeted training concepts to ensure digitalization and industry transformation |
HELLA Presentation German Conference April 2019
Outline

- HELLA Financial Results FY 2017/18
- HELLA at a Glance
- HELLA Strategy
- HELLA’s View on Automotive Market Trends
To benefit from latest market developments, HELLA has incorporated their major implications into its strategic action plan.

### HELLA’s view on Automotive Market Trends

<table>
<thead>
<tr>
<th>AUTONOMOUS DRIVING (AD)</th>
<th>EFFICIENCY &amp; ELECTRIFICATION</th>
<th>CONNECTIVITY &amp; DIGITALIZATION</th>
<th>INDIVIDUALIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major implication</strong></td>
<td><strong>Major implication</strong></td>
<td><strong>Major implication</strong></td>
<td><strong>Major implication</strong></td>
</tr>
<tr>
<td>▶ Strong components portfolio core</td>
<td>▶ Trend with high dynamics</td>
<td>▶ Increasing importance of software: Increase in functionalities with car value shift from hardware to software</td>
<td>▶ Stronger focus of OEMs and consumers on vehicle design features and personalization</td>
</tr>
<tr>
<td>▶ Increasing relevance of system competence and partnerships</td>
<td>▶ Accelerated penetration of electrified vehicles due to incentives and regulatory push</td>
<td>▶ 75% of vehicles with internet by 2020</td>
<td>▶ Increasing demand for passenger related applications and functionalities</td>
</tr>
<tr>
<td></td>
<td>▶ Especially increasing demand for 48 Volt solutions</td>
<td>▶ Digital related revenues to triple until 2030 in Aftermarket</td>
<td>▶ Introduction of functions on demand</td>
</tr>
<tr>
<td></td>
<td>▶ Strong growth in China</td>
<td></td>
<td>▶ Additional growth opportunities for HELLA especially in the field of interior and car body lighting</td>
</tr>
</tbody>
</table>

**Major implication**

- **Strong components portfolio core**
- **Increasing relevance of system competence and partnerships**
- **Substantial growth opportunities** for HELLA (worldwide, but especially in China)
- **New business opportunities** e.g. cloud-based solutions, domain computer, digital aftermarket solutions

**HELLA’s view on Automotive Market Trends**

- **Trend is gaining speed**, especially L1-3 (pushed by safety regulations)
- **Penetration L4-5 moved further away**
- **Increasing number of partnerships** for L4-5
- **Higher willingness** of consumers to pay for AD features
- **Increasing importance of software**: Increase in functionalities with car value shift from hardware to software
- **75% of vehicles** with internet by 2020
- **Digital related revenues** to triple until 2030 in Aftermarket
- **Stronger focus** of OEMs and consumers on vehicle design features and personalization
- **Increasing demand** for passenger related applications and functionalities
- **Introduction of functions on demand**
HELLA is already benefiting from trend towards Autonomous Driving by focusing on solutions for L1-L3 requirements

Autonomous Driving – Overview

- **MARKET Development**
  - Strong ADAS penetration especially penetration of lower levels (L2 and L3) increasing
  - ADAS sensors demand increasing globally, especially camera, radar and lidar with strong growth
  - Estimated penetration of L4 and L5 moved further away, penetration starting notably in 2030

- **HELLA Offering**
  - 24 GHz Radar
  - NCAP 77 GHz Radar
  - NCAP Camera Software
  - Performance Driven 77 GHz Radar
  - Complex Imaging Processing Camera Software
  - Shake Sensor

- **HELLA Position & Strategy**
  - Strong growth perspective with established products and product roadmap
  - HELLA as key supplier of ADAS, pushing front camera software, radar portfolio e.g. 24 GHz and 77GHz low cost and supplement SHAKE sensor
  - Develop new products together with partners like AEye for LiDAR to offer new use cases
  - Allocate resources to complex Image Processing and 77 Ghz performance radar to continuously enhance products and offer L3+ functionalities

* Based on global LVP, source: Strategy Analytics November 2017, 2018; HELLA analysis
HELTA’s 77 GHz radar family approach covers almost all market needs for assisted and automated driving

Autonomous Driving – Key supplier for ADAS: radar sensors

**MARKET SITUATION**

- 24 GHz radar is common technology for standard assistance functions
- 77 GHz radar is satisfying requirements for Assisted and Automated Driving
- Replacement of 24 GHz radar by cost effective 77 GHz “System on Chip” solutions has already started
- Highest volume growth driven by NCAP and level 2/3 functionalities in price driven market for standard corner radars
- Mid/high performance solutions needed for higher automation levels (L3+) based on cost competitive, modular, scalable sensors and system designs

**HELTA APPROACH**

- Further roll-out of successful 24 GHz radars
- Offering 77 GHz radar platform as component or system business from HELTA sales channels or with cooperation partner ZF
  - Modular platform (focus on different interfaces)
  - Scalable sensor solutions (processor performance & antenna set-up)
  - Maximize synergies (focus on reuse of SW components)
  - Flexible software deployment (decentralized or centralized functions)

**77 GHz radar product family**

- Cost optimized (e.g. NCAP)...
- Truck (e.g. Turn assist)...
- Performance driven for AD (e.g. highway pilot)...

**KEY ACHIEVEMENTS**

- Key supplier for 24 GHz radar with more than 20 million sensors on the market; booked business will more than triple HELTA’s volume
- 77 GHz radar platform under development: successful business acquisition for passenger cars (premium & volume) and Truck
- Pre-development phase for next generation technologies (e.g. “Antenna on Chip”) and parking Application with Premium OEM
HELMA offers scalable camera software platform for NCAP and advanced ADAS functionalities

Autonomous Driving – Key supplier for ADAS: camera software

**MARKET SITUATION**
- Transition to **Automated Driving** increases penetration rates of cameras
  - ~20 million cameras in 2020
  - ~40 million cameras in 2025
  - 2x

- Especially **growth in NCAP market** accelerating, pushing **front camera market** size to
  - ~3.5bn US$ in 2025

- **OEMs push vehicle intelligence and sensor demand** in Europe and NSA, **governmental push in China** for ICV and intelligent infrastructure

- **OEM customers require** camera software to offer **L3+ scalability**

**HELMA APPROACH**
- **Flexible, scalable approach** from cost optimized (NCAP) to complex image processing functions (L3)
- **Differentiated customer approach** depending on level, customer freedom of choice for vision and SOC IP and creating own USP
- **Attractive price per function** model
- **Increasing function portfolio**:
  - AI based vulnerable road user and automatic emergency braking in low cost NCAP camera
  - AI based wide Field of View L2/L3 camera perception on ultra-low power System On Chip (SoC)

**KEY ACHIEVEMENTS**
- **Camera software series launch for NCAP market** with major European OEM
- **Successful acquisition of series orders**, e.g. L2+ camera software with European OEM, L1 camera for Chinese OEM, testing services for Korean Tier 1
- **NCAP software offering available on platforms of 4 semiconductor partners**
- **Successful demonstration of new AI based L2/L3 perception function** on ultra low-power SoC and Camera-lidar integration on AEye next generation lidar **at CES2019**

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1. Strategy Analytics
HELLEA is energizing its long-term profitable growth path by offering attractive products for all stages of electrification

**Efficiency & Electrification – Overview**

### MARKET Development

- **Shift within powertrain concepts** with higher dynamics
- **Increasing focus on 48V systems** as bridging technology for OEM's to reach regulated targets
- **Start-stop technologies growing** next 5 years, pure ICE with sharp decline, ICEs until 2030 still relevant technology

### HELLEA Offering

<table>
<thead>
<tr>
<th>Efficiency &amp; Electrification</th>
<th>CAGR</th>
<th>Data base per CMD 2018 vs. CMD 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Combustion Engine (ICE)</td>
<td>&gt;25%</td>
<td>CMD 2018 Data base vs. CMD 2019</td>
</tr>
<tr>
<td>48V Mild Hybrid (MHV)</td>
<td>&gt;10-25%</td>
<td>CMD 2018 Data base vs. CMD 2019</td>
</tr>
<tr>
<td>Full- (FHEV) &amp; Plug-in Hybrid (PHEV)</td>
<td>&lt;10%</td>
<td>CMD 2018 Data base vs. CMD 2019</td>
</tr>
<tr>
<td>Battery Electric Vehicle (BEV)</td>
<td>CAGR</td>
<td>CMD 2018 Data base vs. CMD 2019</td>
</tr>
</tbody>
</table>

### HELLEA Position & Strategy

**Strong growth perspective with established products and product roadmap**

- **Further roll-out of components** and foster market penetration of e.g. DC/DC converters and IBS
- **Leverage Hybrid and Electric Vehicle competence** to benefit from increasing trend for mild-hybrids with further investments in new products like Dual Voltage BMS and Power Pack 48V
- **Further resources allocation** to BMS and **High voltage** products like Inverter and On Board Charger

* Based on global LVP, source: IHS Engine Database January 2018, 2019; HELLEA analysis
HELLE accompaniess customers comprehensively on their way towards E-Mobility
Efficiency & Electrification – Technology and Product Roadmap

**DEVELOPMENT STAGES OF ELECTRIFICATION**

<table>
<thead>
<tr>
<th>ICE incl. Start/Stop</th>
<th>Mild Hybrid</th>
<th>Full Hybrid &amp; Electric</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DC/DC 12V</strong></td>
<td><strong>DC/DC 12V/48V</strong></td>
<td><strong>DC/DC HV</strong></td>
</tr>
<tr>
<td><strong>Fuel Control Module (FCM I)</strong></td>
<td><strong>Fuel Control Module (FCM I)</strong></td>
<td><strong>Battery Management System (BMS)</strong></td>
</tr>
<tr>
<td><strong>Intel. Fuel Control Module (FCM II)</strong></td>
<td><strong>Dual Voltage Battery Management 12V/48V</strong></td>
<td><strong>Inverter HV</strong></td>
</tr>
<tr>
<td><strong>Inverter 48V (PIM 48V)</strong></td>
<td><strong>PowerPack 48V</strong></td>
<td><strong>On Board Charger</strong></td>
</tr>
</tbody>
</table>

**Strategic Direction**

- **Intelligent components** for battery sensing and for fuel pump control reduce CO₂ emissions for non-electrified vehicles (e.g. Start/Stop)
- **Solutions for 48V Mild Hybrids** allow advanced driving functions such as recuperating, coasting & boosting
- **Supported by experience in 48V power electronics and High Voltage (HV) BMS**, HELLA faces several attractive business opportunities
HELLA supports OEMs to handle increasing complexities and costs by offering system solutions especially for 48V Mild Hybrids

Efficiency & Electrification – Supplier of innovative subsystems

<table>
<thead>
<tr>
<th>PRODUCT SOLUTION</th>
<th>PowerPack 48 Volt</th>
<th>Dual-Voltage Battery Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="PowerPack 48 Volt" /></td>
<td><img src="image" alt="Dual-Voltage Battery Management" /></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TARGET GROUP</th>
<th>Larger vehicles (middle- and premium class)</th>
<th>Compact class</th>
</tr>
</thead>
<tbody>
<tr>
<td>More power consumers and high power for comfort and performance</td>
<td>Reduction of weight and volume with minimal change of conventional board system</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNIQUE SELLING PROPOSITION</th>
<th>Modular solution for high power needs in mild hybridization</th>
<th>Power and efficiency of 48V in a “12V package”</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Functional combination of 48V battery and DC/DC converter into a modular device with minimal change of conventional vehicle architecture</td>
<td>- Functional combination of 48V &amp; 12V battery including power electronics into a single device within the size of a conventional 12V battery</td>
<td>- HELLA first and unique to market</td>
</tr>
<tr>
<td>- Bundling of competence and wide experience for Power Electronics and Battery Management in one single HELLA division</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
HELLA is working on innovative mobility solutions along the digital Aftermarket value chain
Connectivity & Digitalization – Leading diagnostic supplier

**MARKET SITUATION**
- Share of digital-related revenues expected to triple to almost 20 percent in the global automotive aftermarket until 2030
- OEMs are increasing investment in car driver retention with connected vehicles
- IAM and Intermediates require an open interface into the vehicle
- Retrofit dongle solutions available in a highly fragmented market of telematics suppliers
- No common standard (hardware or software) for dongle retrofit solution with varying degrees of quality

**HELLA APPROACH**
- Create tailor-made maintenance and repair offers reducing waiting times and downtime by passing vehicle data (e.g. tire pressure, battery condition) on to independent repair shops without prior workshop visit
- Introduce B2B remote, retrofit onboard diagnosis solution (with Dongle) based on standardized hardware
- Utilize existing data from stationary diagnostics to improve telematics solution
- Build customer segment specific use cases, e.g. for fleet companies

**KEY ACHIEVEMENTS**
- Leading position for stationary diagnostics and repair services in DACH
- Partnership with San Francisco based telematics start-up CarForce established
- Pilot solutions to enable workshops to manage connected cars already running in EU
- Launch of fleet solution and driver app planned for 2019

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HELLA offers innovative lighting designs and functionalities for the inside and outside of the car
Individualization – Leading supplier for personalized functionalities

**MARKET SITUATION**
- Increasing demand for personalization of vehicle
- Lighting is becoming a key styling element of the vehicle exterior and is **penetrating** all all car segments
- Interior solutions with increasing complexity due to styling demands and functionalities focused on individualization
- Introduction of functions on demand, e.g. multicolor illuminations in- and outside
- Both interior and exterior lighting solutions support sensor operations for complex use cases, e.g. auto pilot

**HELLA APPROACH**
- Offer innovative designs and functionalities enabling integrated solutions and connectivity for the inside and outside (front, end, side) car

### INTERIOR OF THE CAR
- Smart light as information carrier, supporting various driving scenarios and occupant modes\(^1\)
- Roof Module with added functionalities and seamless design\(^3\)

### SIDE OF THE CAR
- Side AV communication and safety, e.g. Contour illumination\(^1\)
- Electric integration with remote control / smart phone \(^2\)

### FRONT OF THE CAR
- “Light from nowhere” with semi transparent lenses for metallic appearance and logo animations\(^3\)
- Front panel interactions to communicate V2X\(^4\)

**KEY ACHIEVEMENTS**
- Expansion of customer base for light projections (with multi lense array solutions), e.g. for welcome scenarios
- First customer orders for illuminated logo/radome
- Series developments for advanced ambient illumination and advanced roof module
- Next generation of grille illumination available, first customer projects in development
- Strategic partnership with Faurecia for interior and Plastic Omnium for exterior solutions