Investor & Analyst Conference

Frankfurt/Main
March 14, 2018
## Agenda

1. Review of the fiscal year 2017 – Dr. Jürgen Köhler
2. Financials 2017
3. Outlook 2018
4. Market and business developments
5. New mid-term guidance
Review of the fiscal year 2017. Strategic realignment completed – growth strategy yielding results

Reshaping and deleveraging completed

- We completed the sale of the Business Unit PP in the fourth quarter – preliminary cash proceeds of €461 million **significantly reduced our net debt**
- We have **prematurely redeemed** our €250 million corporate bond as of October 30, 2017
- We have **implemented all measures** within the framework of Project CORE and already **achieved more than 75%** of the anticipated year end 2018 savings
- We achieved a **triple digit net profit** resulting from the successful disposal of CFL/CE
- We **achieved all our balance sheet targets**

Growth strategy executed

- We have **streamlined our joint venture structures** and taken **full control of the carbon fiber value chain** by acquiring the full ownership in former JVs with BMW and Benteler
- We have **implemented our growth strategy** and generated double digit organic revenue growth in the business units
Agenda.

1. Review of the fiscal year 2017
2. Financials 2017 – Dr. Michael Majerus
3. Outlook 2018
4. Market and business developments
5. New mid-term guidance
**Composites - Fibers & Materials.** Moderate growth and slightly more than proportional EBIT improvement

<table>
<thead>
<tr>
<th>in € million</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales revenue</td>
<td>331.9</td>
<td>317.4</td>
</tr>
<tr>
<td>EBITDA before non-recurring items*</td>
<td>44.2</td>
<td>41.3</td>
</tr>
<tr>
<td>EBIT before non-recurring items*</td>
<td>22.7</td>
<td>20.1</td>
</tr>
<tr>
<td>EBIT-Margin before non-recurring items* (in %)</td>
<td>6.8</td>
<td>6.3</td>
</tr>
<tr>
<td>ROCE$_{EBITDA}$ (in %)</td>
<td>11.3</td>
<td>10.9</td>
</tr>
</tbody>
</table>

- **Sales revenue** increased by 5% (currency adjusted by 6%) due to
  - Higher revenues with market segments industrial applications, automotive and textile fibers
  - Lower sales with wind energy industry due to reduced business volumes of our customers in Germany
  - Lower sales also with aerospace industry, however prior year boosted by a one-time order from the US defense industry

- **Recurring EBIT improvement** by 13% due to
  - Higher capacity utilization in our Scottish carbon fiber facility based on higher demand from market segment industrial applications
  - Improved earnings in market segment automotive mainly due to better results in SGL Composites (former joint venture with Benteler)
  - Better earnings also in aerospace market segment despite lower sales revenues
  - Lower earnings contribution from market segment textile fibers due to higher raw material and energy costs
  - **Wind energy** earnings contribution also below prior year level as a result of difficult customer market conditions

* Non-recurring items include reversal of impairment of €0.4 million in 2017 (2016: €12.8m) and restructuring charges of minus €1.1 million in 2016
## Composites – Fibers & Materials.
### Market segmentation

<table>
<thead>
<tr>
<th>Market Segment</th>
<th>Automotive</th>
<th>Aerospace</th>
<th>Wind Energy</th>
<th>Industrial Applications</th>
<th>Textile Fibers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2017</strong></td>
<td>30 %</td>
<td>6 %</td>
<td>12 %</td>
<td>23 %</td>
<td>29 %</td>
</tr>
<tr>
<td><strong>2016</strong></td>
<td>29 %</td>
<td>7 %</td>
<td>15 %</td>
<td>21 %</td>
<td>28 %</td>
</tr>
</tbody>
</table>
Graphite Materials & Systems. Strong growth and substantially more than proportionate EBIT improvement

<table>
<thead>
<tr>
<th>in € million</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales revenue</td>
<td>510.2</td>
<td>444.1</td>
</tr>
<tr>
<td>EBITDA before non-recurring charges*</td>
<td>70.8</td>
<td>49.8</td>
</tr>
<tr>
<td>EBIT before non-recurring charges*</td>
<td>47.8</td>
<td>27.8</td>
</tr>
<tr>
<td>EBIT-Margin before non-recurring charges* (in %)</td>
<td>9.4</td>
<td>6.3</td>
</tr>
<tr>
<td>ROCE_{EBITDA} (in %)</td>
<td>18.0</td>
<td>12.7</td>
</tr>
</tbody>
</table>

- **Sales revenue** increased 15% (currency adjusted plus 17%)
  - Strong double digit growth in market segments **battery & other energy**, **industrial applications**, **semiconductor**, LED, automotive & transport
  - Business with the **lithium ion battery industry** increased 35%
  - Single digit growth in market segments **solar and chemicals** despite weakness in chemical end markets in first half 2017

- Recurring **EBIT** improved substantially more than proportionately by 72% primarily due to
  - Strong earnings increases in market segments **battery & other energy** as well as **industrial applications**
  - All other segments showed stable to slightly improved earnings

* Non-recurring effects of €2.3 million in 2017 and minus €1.6 million in 2016
Graphite Materials & Systems.
Market segmentation

<table>
<thead>
<tr>
<th>Market Segment</th>
<th>Battery &amp; other Energy</th>
<th>Solar</th>
<th>LED</th>
<th>Semiconductor</th>
<th>Automotive &amp; Transport</th>
<th>Chemical</th>
<th>Industrial Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>19 %</td>
<td>10 %</td>
<td>3 %</td>
<td>6 %</td>
<td>7 %</td>
<td>24 %</td>
<td>31 %</td>
</tr>
<tr>
<td>2016</td>
<td>16 %</td>
<td>11 %</td>
<td>2 %</td>
<td>5 %</td>
<td>7 %</td>
<td>27 %</td>
<td>32 %</td>
</tr>
</tbody>
</table>
Corporate.
Like-for-like stable development as anticipated

<table>
<thead>
<tr>
<th>in € million</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales revenue</td>
<td>18.0</td>
<td>8.3</td>
</tr>
<tr>
<td>EBITDA before non-recurring charges*</td>
<td>-24.3</td>
<td>-21.2</td>
</tr>
<tr>
<td>EBIT before non-recurring charges*</td>
<td>-30.4</td>
<td>-27.2</td>
</tr>
</tbody>
</table>

- Lower recurring **EBIT** due to
  - Positive one-off effect of approx. €4 million from land sale in Malaysia in prior year
  - **Like-for-like stable development** as expected

*Non-recurring effects of €6.2 million in 2017 and minus €7.1 million in 2016
Group. Improved operating profit and disposal proceeds partially offset by still high interest expense

<table>
<thead>
<tr>
<th>in € million</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales revenue</td>
<td>860.1</td>
<td>769.8</td>
</tr>
<tr>
<td>EBITDA before non-recurring items</td>
<td>90.7</td>
<td>69.9</td>
</tr>
<tr>
<td><strong>EBIT before non-recurring items</strong></td>
<td><strong>40.1</strong></td>
<td><strong>20.7</strong></td>
</tr>
<tr>
<td>Non-recurring items (reversal of impairment and restructuring)</td>
<td>8.9</td>
<td>3.0</td>
</tr>
<tr>
<td>EBIT</td>
<td>49.0</td>
<td>23.7</td>
</tr>
<tr>
<td>Net financing result</td>
<td>-56.8</td>
<td>-50.9</td>
</tr>
<tr>
<td><strong>Results from continuing operations before income taxes</strong></td>
<td><strong>-7.8</strong></td>
<td><strong>-27.2</strong></td>
</tr>
<tr>
<td>Income tax expense and non controlling interests</td>
<td>-8.4</td>
<td>-8.8</td>
</tr>
<tr>
<td><strong>Net result – continuing operations</strong>*</td>
<td><strong>-16.2</strong></td>
<td><strong>-36.0</strong></td>
</tr>
<tr>
<td><strong>Discontinued operations</strong></td>
<td>155.1</td>
<td>-75.7</td>
</tr>
<tr>
<td><strong>Consolidated net result attributable to the shareholders of the parent company</strong></td>
<td>138.9</td>
<td>-111.7</td>
</tr>
</tbody>
</table>

- **Group sales** revenue up 12%, recurring **Group EBIT** nearly doubled
- **Net financing result** burdened by one-time charges of net approx. €8 million relating to early redemption of corporate bond (accelerated amortization of capitalized refinancing costs and early repayment penalty)
- Positive **net result** due to book profit on the sale of CFL/CE (recorded in discontinued operations)
**Free cash flow.** Positively impacted by proceeds from the sale of former business unit PP

<table>
<thead>
<tr>
<th>Continued operations in € million</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash flow from operating activities</td>
<td>-82.3</td>
<td>-16.2</td>
</tr>
<tr>
<td>Capital expenditures in property, plant and equipment and intangible assets</td>
<td>-52.9</td>
<td>-34.6</td>
</tr>
<tr>
<td>Cash used in other investing activities*</td>
<td>-9.5</td>
<td>2.7</td>
</tr>
<tr>
<td>Free cash flow – continued operations</td>
<td>-144.7</td>
<td>-48.1</td>
</tr>
<tr>
<td>Free cash flow – discontinued operations</td>
<td>458.7</td>
<td>-32.9</td>
</tr>
<tr>
<td>Total free cash flow</td>
<td>314.0</td>
<td>-81.0</td>
</tr>
</tbody>
</table>

- **Capex** higher and at level of depreciation as expected – reflecting increasing number of executed growth projects particularly relating to the lithium-ion battery end market in the business unit GMS
- In addition, **free cash flow from operating activities** (continued operations) impacted mainly by higher working capital and cash outflow for the acquisition of the outstanding 50% of the JV with Benteler
- **Free cash flow from discontinued operations** amounted to plus €458.7 million and related mainly to the proceeds from the sale of GE and CFL/CE (compared to minus €32.9 million in 2016)
- **Total free cash flow** of €314.0 million (after minus €81.0 million in prior year) used for **net debt reduction**

*Dividends received and/or payments made for capital contributions in investments accounted for At-Equity and other financial assets, proceeds from sale of intangible assets and property, plant and equipment, as well as payments for the acquisition of subsidiaries*
Balance sheet.
All balance sheet targets have been reached

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total assets</td>
<td>1,541.7</td>
<td>1,899.2</td>
</tr>
<tr>
<td>Equity ratio (in %)</td>
<td>29.6</td>
<td>17.5</td>
</tr>
<tr>
<td>Total liquidity*</td>
<td>382.9</td>
<td>333.0</td>
</tr>
<tr>
<td>Net financial debt</td>
<td>139.0</td>
<td>449.4</td>
</tr>
<tr>
<td>Gearing (net debt/equity)</td>
<td>0.30</td>
<td>1.35</td>
</tr>
<tr>
<td>Leverage ratio (net debt/EBITDA)</td>
<td>1.5</td>
<td>6.4</td>
</tr>
</tbody>
</table>

- All **balance sheet metrics** have improved due to the proceeds from the sale of the former business unit PP as well as the early redemption of the €250 million corporate bond.
- All **balance sheet targets** have been reached
- **Further improvement in equity ratio in Q1/2018** as we repaid the €240 million convertible bond at maturity in January 2018 from cash on hand reducing total assets; gearing and leverage ratio will slightly deteriorate due to full consolidation of SGL ACF but remain within our targets.

*including liquidity of assets held for sale of €3.6 million as of December 31, 2017 and € 3.5 million as of December 31, 2016*
1. Review of the fiscal year 2017

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3. Outlook 2018 – Dr. Michael Majerus

4. Market and business developments

5. New mid-term guidance
Business Unit outlook 2018.

Composites – Fibers & Materials (CFM)

- Substantial increase in sales by 25%
  - Mainly driven by acquisition of former joint ventures with BMW and Benteler
  - Accordingly sales in market segment automotive to more than double, while sales with the wind energy industry should decline by approximately 25% due to the sale of SGL Kümpers
  - Sales to market segments aerospace, industrial applications and textile fibers expected on prior year level
  - Like-for-like (i.e. excluding currency and M&A effects) mid-to-high single digit growth rate expected

- EBIT* to also improve substantially due to
  - Full consolidation of former joint venture with BMW
  - Higher volumes partially offset by negative currency effects and higher development expenses

*before purchase price allocation and non-recurring items
Graphite Materials & Systems (GMS)

- Slight increase in sales – corresponding to currency adjusted mid-to-high single digit sales growth
  - Driven by market segments LED, solar as well as automotive & transport
  - Semiconductor, chemicals and industrial applications expected on prior year level
  - Strong volume increase in market segment battery and other energy, offset by price adjustments
- Slight EBIT* improvement: higher capacity utilization partially offset by adverse currency effects
- High ROCE_EBITDA of 18% in 2017 should be achievable again in this business unit

Corporate

- Slightly higher expenses due to
  - Lower cost allocations to buyers of former PP business unit
  - Higher consulting fees (OMS, new data protection directive)
Group outlook 2018.
Further improvement in the profit and loss statement

- Full year **Group sales** to increase by approximately 10%, corresponding to a like-for-like (ie. excluding currency and M&A effects) mid-to-high single digit growth rate

- **Group recurring EBIT** to increase at a slightly faster pace than sales due to expected volume increases, the additional earnings contribution from the full consolidation of the former joint venture with BMW as well as cost savings, partially offset by adverse effects from currency, raw material and personnel cost developments

- **Net result – continued operations** expected to improve and reach a “black zero” due to
  - Improved operating profit
  - Lower interest expenses due to early redemption of corporate bond in October 2017 and repayment of convertible bond at maturity in January 2018 – partially offset by higher interest expenses relating to full consolidation of former JV with BMW

*before purchase price allocation and non-recurring items*
Group outlook 2018. Capex/acquisitions drive higher net debt but all balance sheet targets remain intact

**Capex** to increase compared to prior year to 15-25 million € above level of depreciation
- Level of depreciation increases to €65 million due to full consolidation of former joint ventures
- Broad guidance range reflects flexibility in timing of individual investment projects
- Mid term guidance of capex at depreciation levels remains valid but capex requirements are front end loaded

**Total free cash flow** to reach a “black zero”
- **Free cash flow - continued operations** to improve significantly but remain negative in low-to-mid double digit range mainly due to high capex level and cash outflow for the acquisition of the Wackersdorf site in the former joint venture with BMW
- **Free cash flow - discontinued operations** to reach positive low-to-mid double digit range due to payment of final instalments of purchase price for disposal of GE and CFL/CE

**Net debt** at end 2018 to substantially increase due to the full consolidation of former joint venture with BMW however

**Balance sheet targets - equity ratio** at or above 30%, **gearing** at or below 0.5 and **leverage ratio** at or below 2.5 – will continue to be met

*before non-recurring items*
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5. New mid-term guidance
Automotive. CO₂ targets drive lightweight construction

OEM fleet target development (EU) [in g CO₂/km]

<table>
<thead>
<tr>
<th>Year</th>
<th>2016 actual</th>
<th>2021</th>
<th>2025 CO₂ ≤</th>
<th>2030 CO₂ ≤</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>119</td>
<td>95</td>
<td>81</td>
<td>67</td>
</tr>
</tbody>
</table>

-20% -15% -30%

Relative component weight* [in %]

<table>
<thead>
<tr>
<th>Component</th>
<th>2016</th>
<th>2021</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel</td>
<td>100</td>
<td>95</td>
<td>81</td>
<td>67</td>
</tr>
<tr>
<td>Lightweight steel</td>
<td></td>
<td>-5 to -25%</td>
<td>-40%</td>
<td></td>
</tr>
<tr>
<td>Aluminum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnesium</td>
<td></td>
<td>-15%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFRP quasi-isotropic</td>
<td></td>
<td></td>
<td></td>
<td>-20%</td>
</tr>
<tr>
<td>CFRP unidirectional</td>
<td></td>
<td></td>
<td></td>
<td>-60%</td>
</tr>
</tbody>
</table>

*With same functionality
Source: ICCT, SGL estimates
Automotive.
Driving growth in CFM...

- Completion of the FRP* value chain by acquiring and integrating former JVs with Benteler and BMW will allow to better address the increasing number of new requests from both OEM and Tier1 in the market

- Growth in components driven by
  - New applications (e.g. leaf spring)
  - New technologies (e.g. thermoplastics)
  - Existing products/markets (e.g. wet friction)

- Clear trend evolving toward multi material mix and FRP* usage for local reinforcement

- Globalization and ramp-up in America and Asia

- E-Mobility as a key driver for new lightweight structural FRP* concepts also driven by new OEM entrants

*Fiber reinforced plastic
Automotive. ...as well as in GMS

- E-mobility supports growth with graphite parts: higher demand for brake assistant pumps and water pumps
  - Brake assistant pumps: create missing vacuum (electric vehicles)
  - Water Pumps: cooling remains key topic in all vehicles (e.g. Tesla S has 4 secondary water pumps)
- Entry into Chinese market via existing and new customers, supply to some key projects opens up additional opportunities
- Due to increased demand for automotive solutions and components based on specialty graphite, we are investing approx. 25 million euros until 2020 to increase capacity at the Bonn site
- We have recently received a major order from “Rheinmetall Automotive – Pierburg”, where we will supply brake assistant pumps. The annual order volume is in the low double-digit million euros range
Aerospace.
Market growth and focus on operating cost efficiency

- Airline industry extremely competitive, constant battle over cost reduction => composites address this key customer requirement as lightweight construction reduces fuel consumption
- Strong commercial aircraft **CFRP market growth (CAGR > 8%)** driven by aircraft programs (e.g. A350, B787, B777X)
- Besides Boeing and Airbus in the field of commercial aircraft other aerospace markets are accelerating – launcher, UAV, etc.
Aerospace. CFM growth based on proven competence in automated serial manufacturing

- Limitations in today’s aerospace composites manufacturing prevented further penetration beyond Boeing 787 and Airbus 380 and 350
  - Low annual production volume allow labor intensive production processes
  - Composites for aerospace are by far the most expensive. Average markup (ratio of end-user/raw material cost) is nearly 6.5, and thus far ahead of the next sector, consumer goods (ratio of 2.9)*

- Aerospace industry likely to further increase composites penetration rate between 2016-2021*
  - Requirement: higher use of automation to produce composite parts at lower manufacturing costs and increased production volumes

- We are ideally positioned to address exactly these issues based on our carbon fiber and composites competence acquired while working for the automotive industry
  - Integrated value chain from precursor to components
  - Materials (e.g. fabrics) for secondary structures, and interior applications
  - New aerospace projects for materials and aircraft components

Source: JEC
Wind energy. Redefine CFM market approach to better exploit opportunities

- Current market conditions challenging
  - Stagnating global installed wind turbine growth
  - German-centric customer base more than proportionally affected (new tendering procedures)
  - OEMs and suppliers are under high cost pressure and qualify further suppliers
- Temporarily lower sales share due to sale of SGL Kümpers
- Changing technologies (prepreg vs. fabrics vs. pultrusion) require adjustment of market approach
- Several OEMs design new blades for large off-and on-shore wind turbines based on new technologies
- **Beyond wind energy:** additional opportunities identified in oil & gas industry (e.g. pipes, risers, liquid gas tanks, and others)
Battery & other energy. The whole value chain continues to invest into lithium-ion battery technology.

- Cell Material Producers
- New capacities announced >500 GWh/a until 2030
- Automotive OEMs
- > 200 new xEV models announced until 2025

Cell/Battery Producers

- Umicore
- BASF
- Hitachi Chemical
- IMERYS
- Toray
- JM
- Syrah Resources
- Albemarle
- Samsung
- LG Chem
- Panasonic
- CATL
- Northvolt
- Terrae
- Tesla

Multiplying of capacities initiated.
Battery & other energy. Accelerated growth drives our graphite anode material business

- All prior growth estimates will be exceeded – e-mobility as key driver
- Graphite Anode Material (GAM) demand approx. 1kg per 1 kWh
- Our strong market share positions us well to participate in anticipated strong growth
- Lithium-ion continues to remain the dominant battery technology well beyond 2025, due to
  - Established technology and capacities
  - Cost/kWh will halve until 2025

![Market Development LIB (GWh/a prod capacity)](image)
Solar.
Growth continues, driven by and depending on China

**PV module installations [GWp/a]**

- **EPIA historical data**
- **PV Tech**
- **ITRPV 2017**

<table>
<thead>
<tr>
<th>Year</th>
<th>EPIA Historical Data</th>
<th>PV Tech</th>
<th>ITRPV 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>40</td>
<td>51</td>
<td>77</td>
</tr>
<tr>
<td>2016</td>
<td>90</td>
<td>100+</td>
<td>115</td>
</tr>
<tr>
<td>2018</td>
<td>140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>160</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CAGR 2010-’15**
- 24%

**CAGR 2016-’21**
- 16%

**Solar growth continues**
- China, India and USA are main drivers
- Levelized costs of PV energy continues to fall
- Crystalline silicon remains dominant PV technology but shift towards mono due to higher efficiency

**Positive impact on GMS**
- Technology shift from multi/crystalline to mono/crystalline favoring our graphite product portfolio
- Opportunities for price increases and long-term partnerships with industry players
- Promotion of full graphite portfolio (differentiating factor)

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1) EU PV Industry Assoc., "Global Market Outlook 2017-2021"; 2) PV Tech article Aug. 16, 2017 and IHS Markit Aug. 24, 2017; 3) ITRPV (International Technology Roadmap for PV, Mar. 15, 2017) "Low scenario" figures are in line with IEA expectations (IEA, Energy Technology Perspective, June 2016);
Semi sees stable and long-term growth

- 5% CAGR expected 2017-2022*
- Memory (computing, mobile phones) drives 12”
- Automotive (semi-autonomous and autonomous driving) and industrial (“Industry 4.0”) drives 8”
- After strong 2017, we expect 8” and 12” wafers in short supply in 2018
- Artificial Intelligence a sustainable growth driver
- Long-term growth particularly in China

Positive impact on GMS’ graphite products

- Potential for price increases
- Gain qualification at new accounts
- Maintain/intensify cooperation with Chinese players (>40 new semi fabs to be built in the next years)

*Source: SEMI Industry Strategy Symposium, Gartner, IHS Markit
LED. Major contributor to GMS’ growth expectations

- **LED growth** driven by
  - **7.9%: automotive** CAGR 2016-2022 (increasing LED use on vehicle exteriors, headlamps, daytime running lights, rear lighting, turning lights, and interior vehicle illumination for both cars and heavy vehicles)
  - **8.5%: signage** CAGR 2016-2022 (trend towards finer pitch displays, large full color displays, road signs, traffic lights, and building lettering)
  - **6.1%: general lighting** CAGR 2016-2022

- **Expansion of LED fabs** leading to a sellout situation in **SiC coated graphite**

- Settlement of patent litigation will **accelerate our growth 2018ff**

- This strong growth drives demand for our **graphite susceptors** and **wafer carriers**. Consequently we are beginning with the **second expansion stage** in our St. Marys (Pennsylvania, USA) **coating facility**
  - First expansion stage started in 2017 to be completed mid 2018
  - Second expansion stage to be completed in fourth quarter 2018
  - Total capex €25 million over 3 years

*Source: IHS Markit*
Chemicals.
Chemical industry expected to stabilize

Chemical production forecast
[change 2018 vs. 2017 in %]

- World: 3.5%
- USA: 3.0%
- Brazil: 1.5%
- EU: 2.0%
- China: 6.0%
- India: 4.5%
- South Korea: 2.5%
- Japan: 2.0%

Chemical industry improving profitability

- Consolidation (e.g. Dow/DuPont)
- US petrochemical industry recovering from low base
- Shale gas recovery expected

We expect our business to benefit from this improvement

- Recent contract win in China for HCl recovery
- Postponements of projects/system maintenance of recent years now have to be executed
- Maintenance capex in EMEA and US to drive sealing business

Industrial Applications. Favorable economic backdrop for continued improvement in high-tech applications

- Economic forecasts (IMF, PMI, etc.) predict ongoing, if not improving favorable general industrial environment

- **CFM:**
  - Industrial applications important end market to bridge automotive and aerospace development time
  - New applications/ industries: Prepregs, CFRP, grids, thermoplastics for machinery, medical, marine, ballistic
  - High growth in carbon fiber, esp. for injection molding parts
  - New application possibilities for the use of carbon in civil engineering projects

- **GMS:**
  - US market for industrial applications with cautious improvement driven by increased drilling activities
  - New applications under development, for example glass bending and optical fiber enabled by graphite solutions
Agenda.

1. Review of the fiscal year 2017
2. Financials 2017
3. Outlook 2018
4. Market and business developments
5. New mid-term guidance – Dr. Jürgen Köhler
Targets for 2020 remain valid.
We introduce \( \text{ROCE}_{\text{EBIT}} \) as key performance indicator

Drivers for \( \text{ROCE} \) improvement:

- Top line growth (benefiting from megatrends) leading to higher capacity utilization
- Increasing share of innovative products bearing higher margins
- Efficiency improvement programs driving down costs

\[ \geq 15\% \, \text{ROCE}_{\text{EBITDA}} = \sim 9\% \, \text{ROCE}_{\text{EBIT}} \]

based on annual depreciation and amortization levels of €65-70 million following the full consolidation of SGL ACF

*like-for-like comparison, i.e. before changes in joint venture structures
We introduce a new mid term guidance. Market trends and business positioning drive accelerated growth.

Additional 2022 targets:
- Net profit margin: ~6-7%
- Free cash flow margin: ~5%

Over the entire guidance period:
- Equity ratio: ≥30%
- Leverage ratio: ≤2.5
- Gearing: ≤0.5

We also introduce margin targets for the business units:
- ≥12% ROS$_{EBIT}$ until 2022
Thank you for your attention!
Backup
Group Market Segmentation. Reflects stronger orientation to customer and growth markets

<table>
<thead>
<tr>
<th>Market Segment</th>
<th>Sales 2017</th>
<th>Sales 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility(^1)</td>
<td>19 %</td>
<td>20 %</td>
</tr>
<tr>
<td>Energy(^2)</td>
<td>22 %</td>
<td>22 %</td>
</tr>
<tr>
<td>Digitization(^3)</td>
<td>5 %</td>
<td>4 %</td>
</tr>
<tr>
<td>Industrial Applications</td>
<td>29 %</td>
<td>27 %</td>
</tr>
<tr>
<td>Chemical</td>
<td>14 %</td>
<td>15 %</td>
</tr>
<tr>
<td>Textile Fibers</td>
<td>11 %</td>
<td>12 %</td>
</tr>
</tbody>
</table>

\(^1\)comprises automotive, aerospace, and transport markets; \(^2\)comprises battery, solar, wind, and other energy markets; \(^3\)comprises LED and semiconductor markets
Carbon and Graphite.
Positioned along the entire value chain

Control over the entire value chain enables product customization to customer requirements

Customers receive tailor made solutions from every step of the value chain

Forward integration in finishing technologies (GMS) and CFRP-components (CFM) including application know how are essential for differentiation
CFM. Capabilities tailored to serve market needs

Material Tool Boxes
- Dry Textiles material toolbox
  - Tailored textiles
  - Various dimensions and area weights
  - Carbon and glass fiber-based
- Thermoset material toolbox
  - Curing time: 3 h at 175°C
  - Storage at room temperature: 4 weeks, fig. 140°C
  - Canopy snap-cure resin system
  - With internal release agent if required
- Thermoplastic material toolbox
  - Customized string solutions
  - Various semi-finished materials or a textile approach
  - Carbon and glass fiber-based

≤5 min. cycle time
≤3 min. cycle time
≤1 min. cycle time

Engineering
- Concept development
- Product design
- Process simulation
- Structural analysis
- Virtual prototyping
- Prototyping
- Product testing
- Virtual factory

Component Processes
- Placement
- Pressing
- Injection Molding

Market Needs
- Mass Production
- Automated Processing
- Hybrid Design (e.g. GF / CF)
- Load Path Adapted Design
- Minimum Scrap
GMS. Yet unsolved challenges for series application of Solid State will allow LiB to thrive for many years

### Solid State Technical Challenges
- Metallic lithium presents safety issue. Highly reactive and self-igniting
- Dendritic crystal growth also causes safety issues (short circuiting)
- Cycle stability of cells unproven
- No fast charging possible, which is key to consumer acceptance
- Technology currently available only on micro scale

### Solid State Business Challenges
- Supply chain does not exist yet
- Re-investment in cell production plants necessary, as new processes and equipment will be needed
- Will need to compete with very competitive LiB technology: Cost optimized supply chain for LiB, highly efficient production processes, global economies of scale
GMS. Further improvement potential supports positive LiB technology outlook

Current LiB technology still has large improvement potential and is not fully optimized yet
- Capacity & power limits have not been reached
- Silicon additives to anode materials will allow capacity improvements
- Raw material cost optimization will create increasingly competitive cost/performance profile
- Further optimization of supply chain
- Further improvement of quick-charging capabilities

Long automotive cycles will ensure product survival and prevent quick substitution

Battery replacement market is an additional potential to extend LiB lifecycle and increase sales
Important note:

This presentation contains forward looking statements based on the information currently available to us and on our current projections and assumptions. By nature, forward looking statements are associated with known and unknown risks and uncertainties, as a consequence of which actual developments and results can deviate significantly from the assessment published in this presentation. Forward looking statements are not to be understood as guarantees. Rather, future developments and results depend on a number of factors; they entail various risks and unanticipated circumstances and are based on assumptions which may prove to be inaccurate. These risks and uncertainties include, for example, unforeseeable changes in political, economic, legal and business conditions, particularly relating to our main customer industries, such as electric steel production, to the competitive environment, to interest rate and exchange rate fluctuations, to technological developments, and to other risks and unanticipated circumstances. Other risks that may arise in our opinion include price developments, unexpected developments associated with acquisitions and subsidiaries, and unforeseen risks associated with ongoing cost savings programs. SGL Group assumes no responsibility in this regard and does not intend to adjust or otherwise update these forward looking statements.

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