IAA 2017
Update Rheinmetall Automotive

Horst Binnig
CEO Rheinmetall Automotive

UBS Quo Vadis Industrials Tour 2017
Frankfurt a.M., 21th September 2017
Rheinmetall Automotive
Overview (incl. China)

1 Automotive supplier

3.8 bn EUR Turnover (incl. JVs)

18,000 Employees

108 Years of experience

3 Strong brands

54 Locations worldwide

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Highlights Q2 2017

Solid outperformance of a flat market

- **Sales rose** by 5% to €728 m
- **Operating result** grew by 12% to €67 m
- **Operating margin increased** by 0.6pp to 9.2%
- **Free cash flow improved in Q2** by €18 m to €69 m
Q2 2017

Mechatronics driven by positive mix development

Sales Automotive in EUR million

<table>
<thead>
<tr>
<th></th>
<th>Q2 2016</th>
<th>Q2 2017</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>695</td>
<td>728</td>
<td>+5%</td>
<td></td>
</tr>
<tr>
<td>387</td>
<td>407</td>
<td>+5%</td>
<td></td>
</tr>
<tr>
<td>243</td>
<td>251</td>
<td>+3%</td>
<td></td>
</tr>
<tr>
<td>82</td>
<td>93</td>
<td>+13%</td>
<td></td>
</tr>
<tr>
<td>-17</td>
<td>-23</td>
<td></td>
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</tbody>
</table>

Operating result Automotive in EUR million

<table>
<thead>
<tr>
<th></th>
<th>Q2 2016</th>
<th>Q2 2017</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>67</td>
<td>+12%</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>47</td>
<td>+34%</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>16</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>+13%</td>
<td></td>
</tr>
<tr>
<td>-5</td>
<td>-3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reasons for result development

1. Mechatronics
   - Increasing demand and favorable product mix

2. Hardparts
   - Further recovery in trucks and large-bore pistons, but ramp up cost for innovative products in our German casting JV

3. Aftermarket
   - Revival of east European markets, esp. Russia

Consolidation and others

- New technologies and personnel cost

Restatement of 2016 reported figures in Mechatronics and Aftermarkets related to change in plant assignment
H1 2017
Further growth in sales and earnings

Sales in € million

<table>
<thead>
<tr>
<th></th>
<th>H1/2016</th>
<th>H1/2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>1,349</td>
<td>1,465</td>
</tr>
<tr>
<td>Operating</td>
<td>112</td>
<td>129</td>
</tr>
<tr>
<td>result</td>
<td>69</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>474</td>
<td>832</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>157</td>
<td>176</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>16</td>
</tr>
</tbody>
</table>

Operating result in € million

The activities at the location in Lanciano/Italy were reclassified from the Mechatronics division to the Aftermarket division at the start of 2017. The previous year’s figures have been adjusted accordingly.
Highlights H1 2017

Solid outperformance of a flat market

- **Sales rose** by 8.6% to €1,465 m
- **Operating result** grew by 15.2% to €129 m
- **Operating margin increased** by 0.5 pp to 8.8%
## Outlook 2017

### Guidance raised on improved Automotive outlook

<table>
<thead>
<tr>
<th><strong>AUTOMOTIVE</strong></th>
<th><strong>DEFENCE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Macro view</strong></td>
<td><strong>Further demand increase</strong> in key markets</td>
</tr>
<tr>
<td>- Global LV production growth ~2%*</td>
<td>- Germany and other allies have increased investment budgets</td>
</tr>
<tr>
<td>- Chinese LV production growth ~1%</td>
<td>- Strong backend loading of Defence performance</td>
</tr>
<tr>
<td><strong>Rheinmetall</strong></td>
<td>- Single digit sales growth expected for 2017</td>
</tr>
<tr>
<td>- Automotive expected to <strong>outperform markets</strong></td>
<td>- <strong>Stronger sales momentum 2018</strong></td>
</tr>
<tr>
<td>- Ongoing considerations to <strong>streamline the global footprint</strong> of Hardparts to optimize assets and cost structure</td>
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### New Outlook 2017

<table>
<thead>
<tr>
<th><strong>Sales growth expectation lifted from 3-4% to 6-7% and operating margin level from ≥8% to around 8.4%</strong></th>
<th><strong>Sales growth of 5-6% and operating margin of 5-5.5%</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group expected to grow ~6% instead of 4-5% at an operating margin lifted from around 6.3% to around 6.5% incl. efforts for New Technologies</strong></td>
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</table>

*Source: IHS July 2017*
IAA 2017
„Merkel criticizes auto managers“
Volvo says good-bye to the internal combustion engine.

“Starting in 2019, every new Volvo model will be powered by an electric motor.”

“We’re saying good-bye to the internal combustion engine”, states Hakan Samuelsson.
Threat scenario

Scenario analysis of the exposition of CO₂

- Present climate protection plans (+6°C)
- Announced climate protection plans (+4°C)
- +2°C scenario
- +1.5°C scenario

Shanghai in the +4°C scenario
As from 2020:
12% New Energy Vehicles mandatory
30% NEVs in 2025 exp.
Three mainstreams for future mobility

New Technologies  Electrification  Efficiency
Efficiency-drivers

CO₂ emission regulations of important markets

Global Trend
Efficiency: reduction of fuel consumption
Rheinmetall Automotive’s Road to 95

Reference vehicle
1.4L 4-cylinder SI engine with DI and one-stage turbocharging (115kW)

Rheinmetall Automotive products

-1 g CO₂/km
Variable oil pump

-3 g CO₂/km
Tribo-system

-3 g CO₂/km
Var. cool. pump

-7 g CO₂/km
Var. valve train

-2 g CO₂/km
El. low-press. EGR

-2 g CO₂/km
Light-weight structural parts
Three mainstreams for future mobility

New Technologies  Electrification  Efficiency
Growth driver electrification
Broad product range for alternative drive systems (Hybrids)

Enlarging the traditional product portfolio for combustion engines ...

- Electric throttle bodies
- Pistons
- EGR valves
- Engine blocks
- Mechanical coolant pumps
- Oil pumps
- Heat pump (Production-vehicle development)
- Engine bearings
- Battery boxes (as from 2018)
- E-engine housing (as from 2018)
- Electrical coolant pumps
- Electrical vacuum pumps
- Electrical coolant valve
- Electrical oil pumps

... by products for hybrid and electric engines
Assumption

What about pure EV?

Electric Vehicle (EV)

- Combustion Engine
- Electric Vehicle (EV)
Growth driver Electrification
Complex with high potential

Thermal management circuit – heating, ventilation, interior temp. control
Battery-Pack

**Lightweight Design 1:** Battery cover made of fiber composite material (CFK)

**Protection System 1:** Integrated flame protection

**Lightweight Design 2:** Weight-optimized aluminum cast tray with integrated floor cooling

**Protection System 2:** Load optimized lightweight design as underfloor protection
Contracts for electric vehicles

E-Taxis in London
- Pump technology for pure electric taxis

Battery cell boxes
- Aluminum battery boxes for German premium OEM

Electric engine housing
- Electric engine housing for German premium OEM to serve the Chinese market
Our goal: 
We will supply the whole market!
Three mainstreams for future mobility

New Technologies  Electrification  Efficiency
Sales split Rheinmetall Automotive
Vision 2025+

Efficiency

New Technologies

Electrification
New Technologies: AMPRIO RHEINMETALL GROUP
Summary:
Rheinmetall Automotive is well prepared

Markets and Customers:
- We expect a stable market (Europe & NAFTA)
- China will be the growth driver, but with lower growth rates than in the past
- Brazil seems to recover

Performance and Products:
- Mechatronics will be the growth driver in the next years
- Hardparts will streamline the global footprint to optimize assets and cost structure
- Aftermarket will return to former profitability after ramp up of own production facilities

New Mobility Concepts:
- Hybrid cars and e-cars are offering chances for new products and higher content per car
- We have to refocus our R&D spending to enlarge the product portfolio
- The product pipelines are filled for every type of power trains within the next years
Not too early...

Not too late...

Just right!
OUR HEART BEATS FOR YOUR ENGINE.