GLOBAL AUTOMOTIVE

DAVE JONES
HEAD GLOBAL AUTOMOTIVE
SIKA CAPITAL MARKETS DAY 2016
GLOBAL VEHICLE PRODUCTION
STEADY UNDERLYING GROWTH

Source: IHS 8 / 2016

2.6% CAGR
VEHICLE CONTENT

INNOVATIONS DRIVE CONSTANT INCREASE IN VEHICLE CONTENT

<table>
<thead>
<tr>
<th>Model</th>
<th>Content (CHF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TESLA MODELS S &amp; X</td>
<td>&gt; 70</td>
</tr>
<tr>
<td>JAGUAR XF</td>
<td>&gt; 100</td>
</tr>
<tr>
<td>GREAT WALL HAVAL H7</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>BMW 7 SERIES</td>
<td>&gt; 60</td>
</tr>
<tr>
<td>MERCEDES S-CLASS</td>
<td>&gt; 60</td>
</tr>
<tr>
<td>CHRYSLER PACIFICA</td>
<td>&gt; 40</td>
</tr>
<tr>
<td>VW GOLF 7</td>
<td>&gt; 40</td>
</tr>
</tbody>
</table>

AVERAGE VEHICLE CONTENT

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales (CHF)</th>
<th>Content per Vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>4.73</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>4.88</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>5.14</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>5.57</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>6.19</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>6.75</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>7.45</td>
<td></td>
</tr>
</tbody>
</table>
NET SALES GLOBAL AUTOMOTIVE
CONTINUOUS STRONG GROWTH

In CHF mn
Growth in percent in LC

+31.7%  +11.6%  +16.9%  +12.1%  +14.1% (HY 2016)
SIKA AUTOMOTIVE IS OUTGROWING THE MARKET
OUTPERFORMING THE MARKET

Source: IHS
SIKA AUTOMOTIVE
GLOBAL REACH, LOCAL PRESENCE

Fully established organization with global supply chain and R&D in all regions

KEY FACTS

- EMPLOYEES END 2015: 1,065
- PLANTS: Total: 13

ANNUAL AVERAGE SALES GROWTH SINCE 2012
- GLOBAL AUTOMOTIVE: +14%
- AUTOMOTIVE CHINA: +40%

STRUCTURAL ADHESIVES SALES
DOUBLED IN THE LAST THREE YEARS

- SALES & CUSTOMER SERVICE
- RESEARCH AND DEVELOPMENT / TECHNOLOGY CENTER
- AUTOMOTIVE MANUFACTURING

BUILDING TRUST
GLOBAL REACH, LOCAL PRESENCE

RECENT INVESTMENTS

**GRANDVIEW MISSOURI**
- SikaPower® production 2015
- 1,100 ton press – reinforcer 2016
- Reactor for PPU 2016
- Hotmelt production - 2016

**HAMBURG GERMANY**
- New reactor adding capacity to 4,200 metric tons 2016
- New SikaPower® mixing equipment

**SUZHOU CHINA**
- New Technology Center & Automotive Workshop 2015
- Injection molding parts
- SikaPower® production 2016

**SAO PAULO BRAZIL**
- New Technology Center & Automotive Workshop 2016
- Injection molding parts
- SikaPower® production 2016
<table>
<thead>
<tr>
<th>MARKET NEED</th>
<th>STRATEGIC IMPLICATION</th>
<th>SIKA ACHIEVEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Platforms &amp; Vehicle</td>
<td>- Global material approval &amp; local supply capability in all regions with common designs and product requirements</td>
<td>✓</td>
</tr>
<tr>
<td>Architecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lighter Weight Vehicles, CO₂ and</td>
<td>- Lightweight materials (Aluminum, Carbon Fiber, Magnesium, etc.)</td>
<td>✓</td>
</tr>
<tr>
<td>Fuel Reduction</td>
<td>- Mixed material bonding</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Increased use of specialty adhesives, reinforcement technologies and NVH (Noise, Vibration, Harshness) materials</td>
<td>✓</td>
</tr>
<tr>
<td>Hybrid, Electric, Alternative Fuel</td>
<td>- “E-Platforms” require light-weighting</td>
<td>✓</td>
</tr>
<tr>
<td>Vehicles</td>
<td>- Unique body structures require adhesives and refined reinforcement solutions to ensure crash, acoustic performance</td>
<td></td>
</tr>
<tr>
<td>Occupant Safety</td>
<td>- Increasing global crash regulations demand innovative crash-durable, structural adhesives, along with reinforcing techniques</td>
<td>✓</td>
</tr>
<tr>
<td>Emerging and Developing Areas</td>
<td>- Local technology supply using global knowledge of vehicle performance standards adapted to local cost requirements</td>
<td>✓</td>
</tr>
</tbody>
</table>

MEGATRENDS IN THE AUTOMOTIVE INDUSTRY
SIKA – A TRUSTED PARTNER
TYPICAL APPLICATION AND PRODUCT FAMILIES
CONTINUOUS INNOVATION

Crash and Vehicle Dynamic Reinforcement
SikaReinforcer®
SikaReinforcer® HSB
SikaStrut®

Structural Bonding, Mixed Material Bonding
SikaPower®
SikaPower® MBX
SikaSeal®
SikaFlex® UHM

Interior Lamination & Bonding
SikaMelt®
SikaSense®
SikaTherm®

Glass Bonding, General Assembly
SikaFlex®
SikaTack®

Bonding of Exterior Components; Headlamps, Spoilers, Mirrors
SikaFlex®
SikaFlex® ULM
SikaForce®
SikaSil®

Acoustic Systems / Noise, Vibration, Harshness Reduction
SikaBaffle®
SikaDamp®
SikaMid®

Anti-flutter Bonding, Seam Sealing
SikaFlex®
SikaSeal®
SikaPower®
BMW 7 SERIES “CARBON CORE” DESIGN
MEGATRENDS - LIGHTWEIGHTING, MIXED MATERIALS

- **Application Highlight** – Mixed material bonding; steel – CFRP – aluminum
- **CHALLENGE** – Solving the effect of high forces in bond lines due to different thermal expansions of metals and CFRP
- **SOLUTION** – Crash-resistant SikaPower® adhesive resulting in **130 kg** weight reduction over previous model

**Main Content:**

**STRUCTURAL ADHESIVES**
SikaPower® 150 meters of bond line between various substrates

**ACOUSTIC SYSTEMS**
SikaBaffle® and SikaSeal®
68 parts watertight cavity sealing and noise transmission blocking

**DIRECT GLAZING**
Sikaflex® & Sika®Hydro Prep®
glass bonding with water-based pretreatment

**LAMINATION ADHESIVES**
SikaMelt®- classification-free (R40) adhesives; interior door panels, sun visors
Application Highlight – Structural inserts

CHALLENGE – Achieve superior crash performance and body stiffness with unique “falcon wing” door layout

SOLUTION – SikaReinforcer® structural inserts in 8 locations

Main Content:

ACOUSTIC SYSTEMS
SikaBaffle® over 100 parts to block noise transmission, moisture and dust

ACOUSTIC SYSTEMS
SikaDamp® over 200 parts per vehicle for structure-borne lightweight damping. 60% weight saving over competitive solution

REINFORCER SYSTEMS
SikaReinforcer® 16 parts to minimize roof crush, side impact and body stiffness performance

DIRECT GLAZING
Sikaflex® urethane adhesive for bonding front, rear and quarter glass on Models S and X

TESLA MODEL “S” AND “X”, MODEL 3 COMING
MEGATRENDS - E AND HYBRID VEHICLES, SAFETY
NEW VW GOLF – MORE THAN 30 Sika PRODUCTS
MEGATRENDS - SAFETY AND E/HYBRID VEHICLES

- **Application Highlight** – Improving crash safety, bond-line read through, weight reduction
- **CHALLENGE** – Lightweight materials and “E” design required specialized application technology
- **SOLUTION** – High-strength bonding, SikaPower®, and Sikaflex® ULM enhance safety, plus 35 kg weight savings

Main Content:

**STRUCTURAL ADHESIVES**
SikaPower® 150 meters bond line steel to steel

**REINFORCERS & ACOUSTICS**
SikaReinforcer® plus high-strength bonding for side crash safety
SikaBaffle® - 36 baffles

**ASSEMBLY ADHESIVES**
Sikaflex® plus SikaBooster® accelerated system glass bonding
Sikaflex®-ULM for DVD bonding (Dachverstärkungsdämpfung - roof stiffening/damping)

**LAMINATION ADHESIVES**
SikaMelt® interior door panels
CHRYSLER PACIFICA
MEGATREND - ADHESIVE REPLACING WELDS

Main Content:

REINFORCER SYSTEMS
SikaReinforcer® “Cross car” crash insert for Plug-In Hybrid Electric (PHEV) variant

ACOUSTIC SYSTEMS
SikaBaffle® 36 baffles
SikaDamp® for structure-borne vibration damping

DIRECT GLAZING / ASSEMBLY
Sikaflex® glass bonding, component assembly bonding

INTERIOR ADHESIVES
SikaMelt® interior components

FCA flagship platform, “Minivan” to “Crossover”

Application Highlight – Common adhesive for all glass bonding AND 3rd row “Stow & Go” seat tub

CHALLENGE – Flexible enough for glass application, strong enough for component assembly bonding

SOLUTION – Sikaflex® urethane adhesive, applied in 2 areas of the plant but sharing common supply
MERCEDES S-CLASS NVH AND LOCAL STIFFNESS
S-CLASS NVH PACKAGE FOR MIXED MATERIAL BONDING

Main Content:

- **Application Highlight** – Solving NVH (Noise, Vibration, Harshness) and vehicle dynamics - extensive light weighting with UHSS (Ultra-High Strength Steel)
- **CHALLENGE** – Strengthening with design freedom and joining where welding is not possible
- **SOLUTION** – 16 SikaReinforcer® parts at strategic nodes, dynamics improved, 10 kg weight savings

**STRUCTURAL ADHESIVES**
SikaPower® - 217 meters
bond line aluminum and steel

**REINFORCERS**
16 parts contributing strength at strategic locations throughout the vehicle

**ASSEMBLY ADHESIVES**
Sikaflex® Glass bonding, mixed material panorama roof,
Sikaflex® UHM mixed material roof (aluminum/steel)
Sikaflex® ULM for DVD bonding

**INTERIOR & EXTERIOR BONDING**
SikaMelt® sun visors, parcel shelf, headliner, pillars
SikaTherm® leather/textile /foil/ ABS consoles, panels
GREAT WALL MOTOR: HAVAL H7
MEGATREND - GLOBAL REACH, LOCAL PRESENCE

- **Application Highlight** - SikaReinforcer® for torsional stiffness
- **CHALLENGE** - Transfer and adoption of western technology to Chinese OEM
- **SOLUTION** - reinforcing parts on rear door; torsional stiffness and rigidity of system

**Main Content:**

**REINFORCER SYSTEMS**
SikaReinforcer® multiple parts used to strengthen local areas

**ACOUSTIC SYSTEMS**
SikaBaffle® acoustic baffles throughout the vehicle

**EXTERIOR BONDING**
Sikaflex® headlight bonding

**INTERIOR BONDING**
SikaSense® door insert parts bonding
Main Content:

- **Application Highlight** – Reinforcement strategy; alu-alu, steel-steel, steel-aluminum bonding
- **CHALLENGE** – Crash safety, mixed material bonding/prevention of contact corrosion steel-aluminum
- **SOLUTION** – SikaStructure® plus high strength bonding, SikaPower® crash-resistant products bond AND protect

### STRUCTURAL ADHESIVES
SikaPower® - 80 meters bond line solves multiple application challenges

### REINFORCEMENT/ACOUSTICS
SikaStructure® & high-strength bonding B-pillar crash post
SikaBaffle® - 31 baffles

### DIRECT GLAZING
Sikaflex® glass and panoramic roof bonding

### INTERIOR & EXTERIOR BONDING
SikaTherm® sun blind fabrics
Sikasil® 2C headlamp bonding
2019 Ford FOCUS:
- Global SikaBaffle® acoustics package comprising 43 parts for four- and five-door models
- Engineering support and supply to 7 manufacturing plants in all 4 regions
- Model launches early 2018

2017 Chevy CRUZE
- Global SikaBaffle® acoustics package comprising 26 parts for four- and five-door models
- Engineering support and supply to 10 manufacturing plants in all 4 regions
- Model launched in early 2016
GLOBAL REACH, LOCAL PRESENCE
SERVING OUR CUSTOMERS EVERYWHERE
BETTER VEHICLES START WITH SIKA

LIGHTER | STRONGER | SAFER | QUIETER | GREENER
THANK YOU FOR YOUR ATTENTION
A GLANCE AT CHINA
THE LARGEST AUTOMOTIVE MARKET IN THE WORLD

172,000,000
Car Ownership

24,580,000
Car Production

52.4%
Growth in SUV

155,000
NEVs’ Output

29
Global Brands

42.9%
Local OEMs’ Market Share HY 16

NEV: Neighborhood Electric Vehicle
Main growth came from SUV models

Local OEMs market share rose to 42.9% June 2016 (CAAM)

More and more local designs from VW and GM

EU OEMs missed the boom in small SUVs

Push small turbo engines and hybrid models

Lost the price advantage to locals
AUTOMOTIVE MARKET OVERVIEW
CAR PRODUCTION CHINA (MILLION UNITS, IHS)

COMMENTS
- CAGR 2015-2020 of 4.4% in China
- First half-year 2016: China +6.5% (IHS)
SUCCESSFUL SIKA AUTOMOTIVE BUSINESS IN CHINA
NET SALES GROWTH

COMMENTS

- Fast growth in the past five years
- Increase of 35% in the first half of 2016, compared to first half of 2015
- Sika production footprint expanding steadily
2020 BUSINESS PLAN REGION CHINA
AVERAGE VEHICLE CONTENT TO DOUBLE

COMMENTs
- Achieve CAGR of 17% in OEM and 19% in OES
- Double average vehicle content in China by 2020
GREAT WALL MOTOR: HAVAL H7/H8/H9
MEGATREND – CHINESE OEMS USING TOP TECHNOLOGIES

HAVAL H7

BIW REINFORCEMENT
Body In White stiffness insert
SikaReinforcer®

ACOUSTIC SYSTEMS
Acoustic separator
SikaBaffle®

INTERIOR BONDING
Insert parts bonding
SikaSense®

EXTERIOR BONDING
Headlight bonding
Sikaflex®

HAVAL H8

HAVAL H9
SAIC VW: LAMANDO/PHIDEON - LOCAL DESIGN VW
MEGATREND - GLOBAL REACH, LOCAL PRESENCE

**LAMANDO**

**PHIDEON**

**STRUCTURAL BONDING**
Semi-structural bonding
SikaPower®

**DVD BONDING**
Roof bonding
Sikaflex®

**ACOUSTIC SYSTEMS**
Acoustic separator
SikaBaffle®

**INTERIOR BONDING**
Door panel bonding
SikaMelt®

**EXTERIOR BONDING**
Headlight bonding
Sikaflex®
DONGFENG PSA: PEUGEOT 308/408/4008
MEGATREND - GLOBAL REACH, LOCAL PRESENCE

**STRUCTURAL BONDING**
Crash-resistant bonding
SikaPower®

**BIW REINFORCEMENT**
Stiffness reinforcement
SikaReinforcer®

**ACOUSTIC SYSTEMS**
Acoustic separator
SikaBaffle®

**INTERIOR BONDING**
Insert lamination
SikaSense®

**EXTERIOR BONDING**
Headlight bonding
Sikaflex®
THANK YOU FOR YOUR ATTENTION!