# **Evonik Capital Markets Day 2014**



### **Evonik Capital Markets Day** Agenda



Update on Evonik Group				
	Group Strategy Poised for accelerated growth	Klaus Engel (CEO)		
10.30 – 11.30	Financial Strategy Transforming accelerated growth into value	Ute Wolf (CFO)		
	Q&A Session			

Spotlight on Segment Resource Efficiency					
11.30 – 11.45	Segment Resource Efficiency Making the difference		Patrik Wohlhauser (COO)		
11.45– 12.30	Lunch Break				
	Small Group Sessions				
12.30 – 14.15	Andreas Fischer Business Line 'Silica' Invented to improve	Ralf Duessel Business Line 'Oil Let it flow	Additives'	Stefan Silber Business Line 'Coating Additives' Adding Advantages	
14.15 – 15.00	Visit of Silica technical appl	ication center			

# **Evonik Capital Markets Day 2014**

Poised for accelerated growth

Klaus Engel Chief Executive Officer Hanau, 2 October, 2014



# **Evonik is committed to deliver sustainable profitable growth in specialty chemicals**



Our businesses are aligned towards:

Allocation of resources according to global megatrends and high growth opportunities

Strengthening of leading market positions by development of tailor-made and innovative solutions together with clients

Strategic and financial discipline:

Proven track record in portfolio optimization

Solid balance sheet and disciplined use of funds

Clear Commitment:

to deliver sustainable growth

to increase profitability

Value generation for our shareholders



### **Table of contents**

1	Trends in chemical industry
2	Evonik portfolio analysis
3	Strategies for accelerated growth

# Increasing challenges for European chemicals industry



## Global chemicals industry expected to continue to outgrow global GDP, but ...

Demand growth mainly in emerging countries leading to further shift of markets towards Asia Growth Product life cycles becoming shorter with an increasing commoditization of product portfolios Changing competitive structures due to Asian competition Partly higher raw material and operating costs in Europe compared to other Competitiveregions (USA, Middle East) ness High investment needs are no longer a barrier to entry



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1	Trends in chemical industry
2	Evonik portfolio analysis
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# Assessment of Evonik's position and portfolio: More differentiated management needed



One of the world leaders in specialty chemicals operating in markets supported by high-growth megatrends

Current portfolio includes customer- & solution-oriented as well as technology- & product-focused businesses

Management of individual businesses not yet differentiated enough







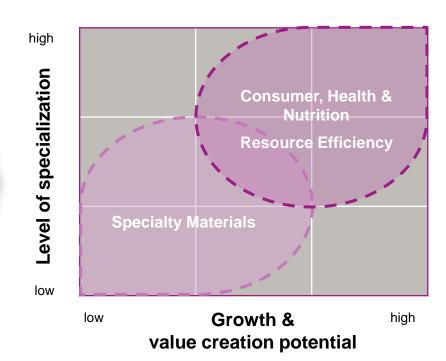
To exploit maximum growth and value potential, reorganization of Group structure and further evolution of portfolio necessary

# Evonik portfolio analysis regarding level of specialization and growth & value potential



#### Success factors for differentiation

- Dependence on raw materials
- Price-setting mechanisms
- Growth perspectives
- General market size
- Relative margins
- Threats of substitution
- Barriers to entry



Differentiated management necessary - tailored to specific needs of individual businesses

# Consumer, Health & Nutrition and Resource Efficiency identified as areas of growth



**Consumer, Health & Nutrition** 



### **Resource Efficiency**



#### Leading in customized, individual and innovation-driven solutions

- Niche markets with high margins, GDP+ growth rates and strong barriers to entry
  - Low dependency on specific raw material cost development
  - Joint R&D with customers and innovative solutions are of high importance

Focus on above-average profitable growth

High returns on invested capital

Concentrate growth capex on these areas

Expansion of businesses with selective acquisitions

# Specialty Materials managed with more product-driven business approach in the future



#### **Specialty Materials**



#### Leading in product-driven activities

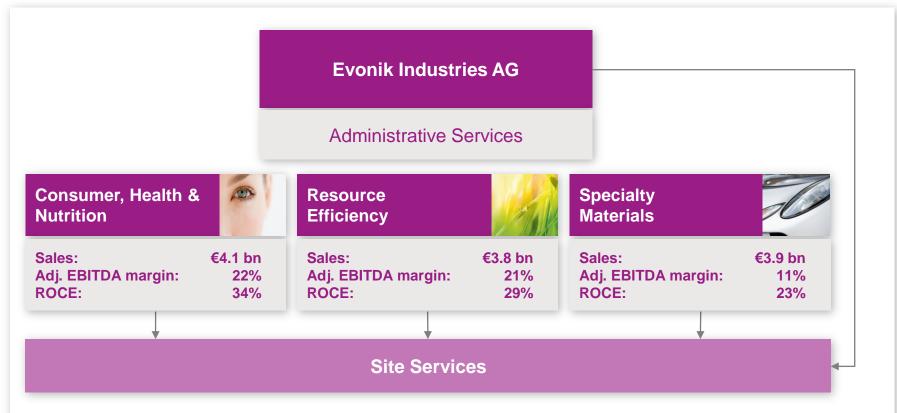
- More product-driven, energy and raw material-intensive businesses
- Characterized by integrated technology platforms, efficient processes and high market penetration

Further efficiency and effectiveness enhancements
High cash returns

Investments and, where appropriate, alliances to secure good market positions

# Differentiated management approach supported by new holding structure





- Evonik Industries AG as new holding company focusses on strategic development and target setting
- Legally independent segments with increased degrees of entrepreneurial freedom to manage the operational business

# Reclassification of single business lines to allow more targeted management



segment structure from Jan 2015

Segments Consumer, Health & **Specialty** Resource **Nutrition Efficiency Materials** Sales: €4.1 bn Sales: €3.8 bn Sales: €3.9 bn KPI's Adj. EBITDA margin: 22% Adj. EBITDA margin: 21% Adj. EBITDA margin: 11% **ROCE:** 34% **ROCE:** 29% **ROCE:** 23% **Personal Care Animal Nutrition** Silica Crosslinkers **Acrylic Monomers** Performance Intermediates (Methionine & Bioproducts) **Household Care Health Care** Oil Additives **Acrylic Polymers Functional Solutions Silanes Business Lines** CyPlus Technologies Comfort & Insulation Agrochemicals & Catalysts **Coating Additives Polymer Additives Active Oxygens** Coating & Adhesive Interface & Performance Resins **Baby Care High Performance Polymers** 



### **Table of contents**

3	Strategies for accelerated growth
	Evonik portfolio analysis
1	Trends in chemical industry



### Levers for sustainable value creation

#### **Innovation**

- Differentiated focus of innovation activities according to specific business needs
- Strong market & customer orientation as basis for successful R&D

### **Organic growth**

- Ramp-up of investment projects according to plan
- Taking advantage of **flexibility** in investment program

### **External growth**

Acquisitions as an additional route for value creation

# Differentiated focus of R&D activities according to specific business needs





Further strengthening of innovation efforts to expand leading positions in growth segments, e.g.:

- Innovative solutions for animal nutrition beyond amino acids
- Biosurfactants produced from renewable resources
- Innovative scratch-resistant coatings, e.g. for automotive clear coats

Split of R&D expenses

~80%

ficiency



Resource Efficiency

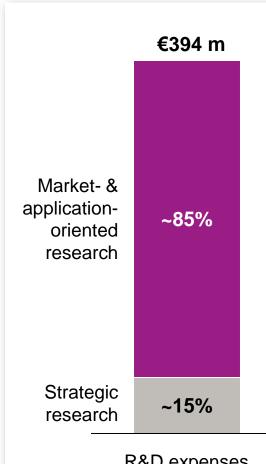
Specialty Materials Securing market and cost positions by optimizing production processes, e.g.:

- Broadening of raw material base, e.g. in C4 chain
- Development of new innovative catalysts for use in Evonik production processes (e.g. in INA)

~20%

### Strong market & customer orientation as basis for successful R&D





#### **Market- & application-oriented research:**

- Short- & medium-term projects
- Focus on existing markets and technologies
- Strong customer orientation and joint R&D collaborations:





#### Oil Additives:

New high quality, multi grade hydraulic fluids from Total for heavy machinery formulated with DYNAVIS® technology



**VESTAKEEP®** 

#### **High Performance Polymers:**

Supported by Evonik and based on VESTAKEEP® PEEK, medical device maker DiFusion developed a spinal implant with FDA approval

R&D expenses

# Successful realization of major investment projects



#### New world-scale methionine plant in Singapore

- On time and on budget after construction phase of three years
- Mechanical completion in July; start of production expected for Q4 2014
- Economic assumptions in line with initial expectations
- Good timing for additional volumes into an unchanged healthy market



#### Targeted silica expansion steps as part of global master plan

- Global silica master plan:
   Capacity expansions completed in USA, Thailand, Taiwan, India, Germany, Spain and Turkey
- Targeted and selective expansion steps meeting strong customer demand and being absorbed by the market



# Acquisitions as additional route for value creation



- Acquisitions as additional growth route to create value:
  - Accelerated entrance into adjacent markets and businesses
  - Enable growth in asset-light businesses
  - Strengthening of resilience against market or product cycles
  - Value enhancement via synergies
- Further growth and sharpening of specialty chemicals portfolio in Consumer, Health & Nutrition / Resource Efficiency
- Potential driver for subsequent portfolio adjustments

• Strong financial profile offers flexibility for external growth

### Levers for sustainable value creation: Ambitious long-term aspiration level



#### **Ambitious long-term aspiration level (by FY 2018)**

Innovation

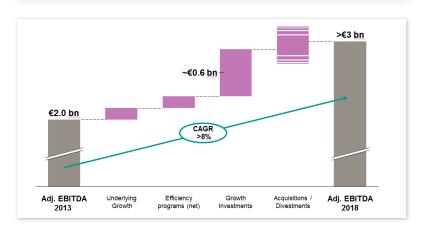
**Organic growth** 

**External growth** 

~€18 bn Sales

>€3 bn adj. EBITDA

Attractive premium on cost of capital





# **Group Strategy**

Backup

# Reorganization of Business Lines according to differentiated management approach



Segment structure from Jan 2015

## **High Performance Polymers**



- e.g. Polyamide12; PEEK
- Products with high value added and large portion of customer-specific solutions
- Growth potential in the fields of membranes, lightweight construction, medical technology and alternative energy sources

## Active Oxygens



- H<sub>2</sub>O<sub>2</sub> for HPPO & "traditional" applications
- Proprietary environmentally friendly technology to produce propylene oxide as polyurethane precursor with substantial cost advantages (HPPO process)

### CyPlus Technologies



- e.g. cyanides for precious metal mining
- Joint management in hydrocyanic acid platform (together with MMA) in the future

Reorganization from Specialty Materials to Resource Efficiency

Reorganization from Consumer, Health & Nutrition to Specialty Materials

# **Evonik Capital Markets Day 2014**

Transforming accelerated growth into value

Ute Wolf Chief Financial Officer Hanau, 2 October, 2014





### Transforming accelerated growth into value

Disciplined approach in employment of funds

Capex and M&A targeting accelerated growth in specialty chemicals

Continued focus on efficiency gains and cost savings

~€500 m On Track 2.0 savings up to €250 m Admin Excellence savings

3 Strong balance sheet and strict financial policy

Solid investment grade rating



Ambitious long-term aspiration for delivering shareholder returns

~€18 bn Sales >€3 bn adj. EBITDA Attractive premium on cost of capital



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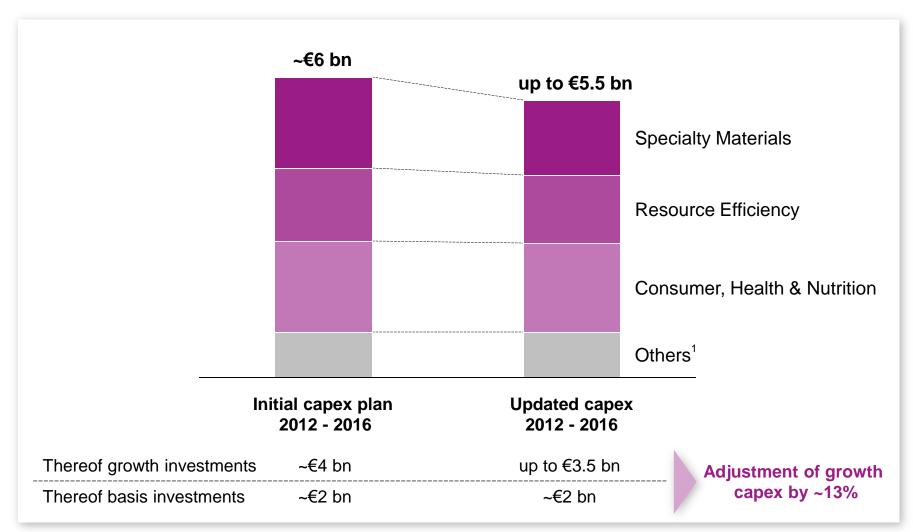
### **Maximum value creation in specialty chemicals**

- Attractive portfolio with high growth opportunities
- Focus on specialty chemicals businesses with above-average returns
- Disciplined and structured approach to internal and external growth opportunities
- Track record in flexible project execution and disciplined use of funds

Exploit maximum value potential in specialty chemicals portfolio

# Taking advantage of flexibility in internal growth program





<sup>&</sup>lt;sup>1</sup> Others: Services and Corporate / Others

# Several major projects finished or close to completion

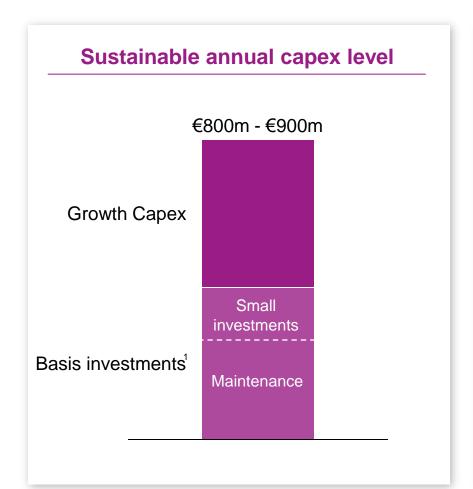


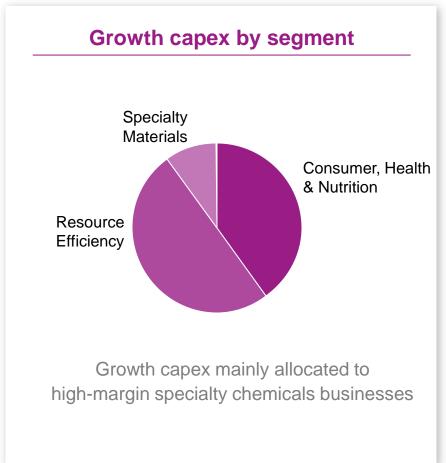
Segment	Product area	Location		Capex budget	Capex spent <sup>1</sup>	Start-up (actual/expected)
Consumer, Health & Nutrition	Methionine	Singapore		>€500 m		Q4 2014
	Personal & home care ingredients	China Brazil		>€100 m		Q1 2014 Q1 2015
Resource Efficiency	Precipitated silica	Global master plan		~€100 m		Q1 2013 (Taiwan) Q1 2014 (Thailand) Q3 2014 (USA)
	Isophorone/ Isophorone diamine	China		>€100 m		Q2 2014
Specialty Materials	H <sub>2</sub> O <sub>2</sub> for HPPO	China		>€130 m	0	Q2 2014
	C4 Chain	Germany & Belgium	ad A sh	>€250 m		2015

<sup>&</sup>lt;sup>1</sup> As of September 2014



### Return to sustainable capex after 2016





<sup>&</sup>lt;sup>1</sup> Basis investments defined as small investments (below €2.5 m focused on growth or efficiency improvements) and maintenance capex (maintenance and regulatory compliance investments)



### Structured planning and approval process

Strategic decision

Allocation of capex budget

Project authorization

**Construction & Commissioning** 

Post completion audit

- General decision on capex budget and preferred fields of investment
- Investment evaluation via strategic and economic project assessment

- Discussion and decision based on presented business plan
- In-depth risk assessment and agreement on risk profile and on measures for risk reduction
- Detailed project monitoring (project volume, timing, key value drivers)
- Analysis of risk assessment and derivation of lessons learned

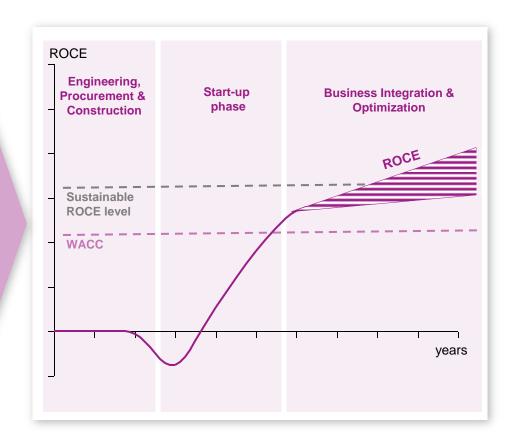
Constant review process on several layers (Business Lines, Corporate functions, Executive Board, Supervisory Board)

# Diligent investment evaluation to secure premium returns



#### **Strategic and economic assessment**

- Strategic assessment considering competitive position, market attractiveness and regional focus
- Economic assessment using DCF-based investment evaluation
- Strict internal hurdle rates and "competition" for scarce resources



Different return levels depending on project layout (e.g. greenfield or debottlenecking)





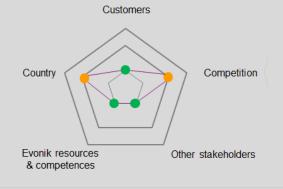
### Similar processes apply to external growth

#### **Internal growth**

#### **Current cost of capital**

Analysis timeframe: **Average depreciation period**(if appropriate, supplemented by life cycle analysis)

#### Risk assessment in 5 categories



#### **External growth**

Depending on target size:

Current or updated cost of capital according to changing business profile

Analysis incl. perpetual annuity

... supplemented by further risk categories

- Transaction risks
- Integration risks
- Realization of potential
- Synergies
- ...



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Ambitious long-term aspiration for delivering shareholder returns

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#### On Track 2.0

Operational Excellence
Procurement
Site Services
Business Services

#### Admin Excellence

Streamlining of Administrative Functions

**Focus** 

Mainly on productivity improvements at our sites and procurement

Administrative functions worldwide

Expected Savings

~€500 m p.a. by 2016 (partly compensated by increasing factor costs)

up to €250 m p.a. by the end of 2016 (high retention rate expected)

**Status** 

Measures for savings of almost €300 m in execution and further ~€150 m already backed by specific measures

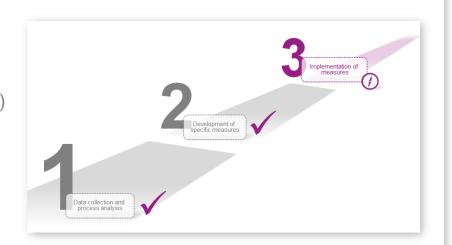
Phase 3 started, first measures in implementation



### **Status of Admin Excellence measures**

#### **Admin Excellence: Phase 3 started**

- In **project phase 2**, more than 400 measures were defined:
  - Structural improvements (~100 measures)
  - Process improvements (~200 measures)
  - Cease of services (~100 measures)



- Project phase 3 initiated
  - First measures already in implementation, e.g.:
    - Streamlining of controlling and billing processes, e.g. harmonization of SAP platforms
    - Concentration of IT resources and infrastructure in one global competence center



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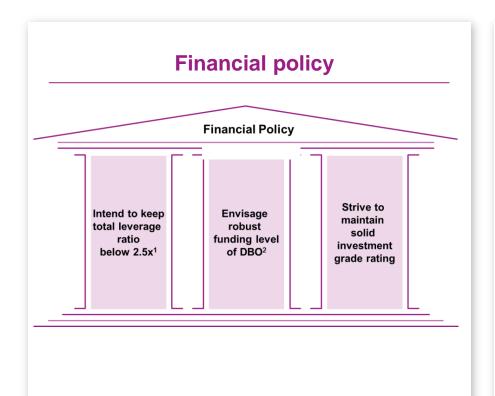


Ambitious long-term aspiration for delivering shareholder returns

~€18 bn Sales >€3 bn adj. EBITDA Attractive premium on cost of capital

### Financial policy and strong balance sheet provide flexibility





#### **Strong balance sheet**

- Equity ratio of ~40%
- Net financial debt at only -€150 m on 30 June 2014
  - STEAG proceeds of ~€570 m received in September 2014
- Total leverage ratio<sup>1</sup> at 2.1x (incl. pensions) as of June 2014

<sup>&</sup>lt;sup>1</sup> Total leverage defined as (net financial debt + unfunded pension obligations) / adj. EBITDA

<sup>&</sup>lt;sup>2</sup> Defined benefit obligations



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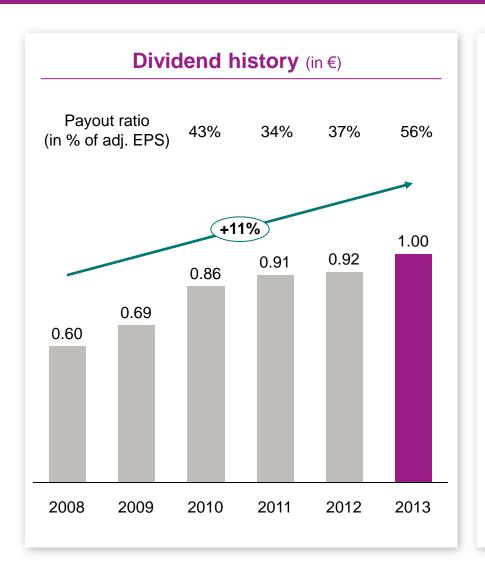


Ambitious long-term aspiration for delivering shareholder returns

~€18 bn Sales >€3 bn adj. EBITDA Attractive premium on cost of capital



#### Reliable dividend policy and attractive returns



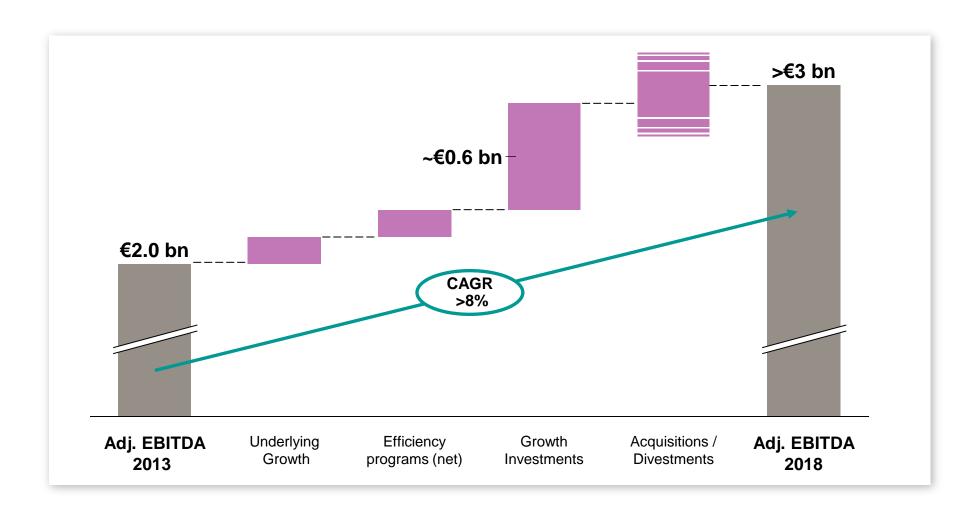
#### **Dividend policy**

Two components of Evonik's dividend policy:

- Overarching target of dividend continuity
- 2) additionally, targeted payout ratio:~40% of adjusted net income
- Compelling track record with regards to dividend policy and shareholder returns (also pre-listing)
- Dividend payment for 2013 of 1.00 € supported by significant cash inflows from Real Estate divestment

### Aspiration level: Adj. EBITDA of >€3 bn and an attractive premium on cost of capital







### **Financial Strategy**

Backup



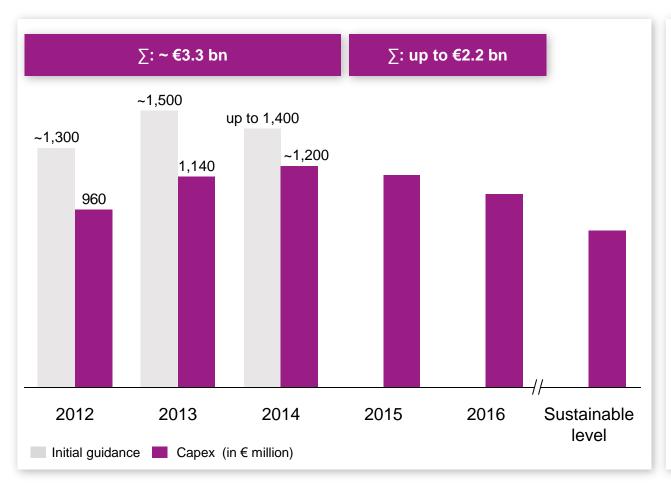
#### Selected projects planned for 2015 & 2016

Segment	Product area	Location	Capex budget	Capex spent <sup>1</sup>	Start-up (expected)	Status
Consumer, Health & Nutrition	Methionine:  Mepron® (for dairy cows)  AQUAVI® Met-Met (for aquaculture)	USA/ Belgium	<50 m		2015	approved
Resource Efficiency	Precipitated silica	Global master plan	~€100 m	1	2016 (Brazil)	approved
	Fumed Silica and Silanes	China	~€100 m		2016	LOI for JV signed

Further projects currently being planned, but not yet approved



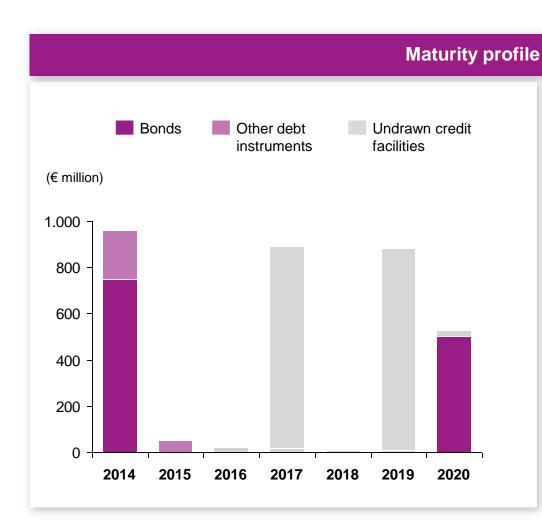
#### Distribution of capex spending 2012 -2016



- ~€3.3 bn capex will be spent end of 2014
- Target amount for 2015 and 2016: up to €2.2 bn
- Return to sustainable annual capex level of €800 m - €900 m p.a. after 2016 (at current portfolio setup)
  - Thereof ~€450 m basis investments¹
  - Corresponding
     D&A of ~€800 m



#### **Balanced maturity profile**



- Upcoming €750m bond maturity in October 2014
- Unchanged policy to fund long-term debt through Capital Markets:
  - €3 bn debt issuance program in place
  - Additional flexibility from STEAG proceeds (€570 m)
- Undrawn syndicated revolving credit facilities as backup



#### **Declining interest burden**

#### **Expected development of adj. net interest expense** (€ million) 300 255 ~200 150 0 2013 2014 2015 2016 2017

- Further reduction of interest expense:
  - Upcoming €750m / 7% bond maturity on 14 October 2014
  - Further CTA funding in 2014 and 2015 (€200 m each)
- Estimated adj. net interest expense for 2014: ~€200 m

### Sale of former Energy business STEAG completed



#### **General information**

- Sale of remaining 49% stake in Energy business STEAG to consortium of municipal utility suppliers completed in Q3 2014
- Purchase price of ~€570 m received in September
- Accounting treatment changed:
  - Until Q2 2014: at equity in P&L (fixed dividend of €6 m per quarter or €24 m p.a.) and balance sheet
     (as Evonik "Adjusted EBITDA" definition includes at equity result, fixed dividend was also part of Adjusted EBITDA; in segment Corporate/Other)
  - In Q3 2014 deconsolidation completed after restatement to discontinued operations; prior year figures (2013) and Q1/Q2 2014 will be restated accordingly

#### P&L / Balance Sheet effects

- Guaranteed dividend of €24 m (on FY basis!)
   no longer included in adj. EBITDA & adj. EPS
- Instead in: "Income after tax from discontinued operations", this will include (visible with deconsolidation in Q3 reporting):
  - YTD dividend payments Jan.-Sept. (~ +€10 m)
  - Negative accounting effect from deconsolidation (mid double digit m € amount)
  - Both effects not included in adj. EPS (as excludes disc. op.), but in reported EPS

# **Evonik Capital Markets Day 2014**

"Making the difference"
Segment Resource Efficiency

Patrik Wohlhauser Chief Operating Officer Hanau, 2 October, 2014



#### **Segment Resource Efficiency** Portfolio of highly profitable and resilient businesses



Segments

Consumer, **Health & Nutrition** 

~€4.1 bn Sales: Adj. EBITDA margin: ~22% **Resource Efficiency** 

Sales: ~€3.8 bn Adj. EBITDA margin: ~21%



**Silica**  $(\sim 25\%)$ 



Crosslinkers  $(\sim 10\%)$ 



**Silanes**  $(\sim 10\%)$ 



Coating & **Adhesive Resins**  $(\sim 10\%)$ 



**Catalysts** (~5%)



Coating **Additives** (~5%)



**Active Oxygens**  $(\sim 10\%)$ 



High Perf. **Polymers**  $(\sim 10\%)$ 



Oil Additives  $(\sim 15\%)$ 



**Specialty Materials** 

Sales: ~€3.9 bn Adj. EBITDA margin: ~11%

> segment structure from Jan 2015

**Business Lines** 

### Portfolio management and growth investments Actively sharpening specialty character of portfolio





#### **Divestments**

- Carbon Black
- Colorants





#### **Acquisitions**

- hanse chemie
- Silbond





#### **Growth investments**

- Silica master plan
- 5<sup>th</sup> isophorone chain in Shanghai
- Oil Additives expansion in Singapore

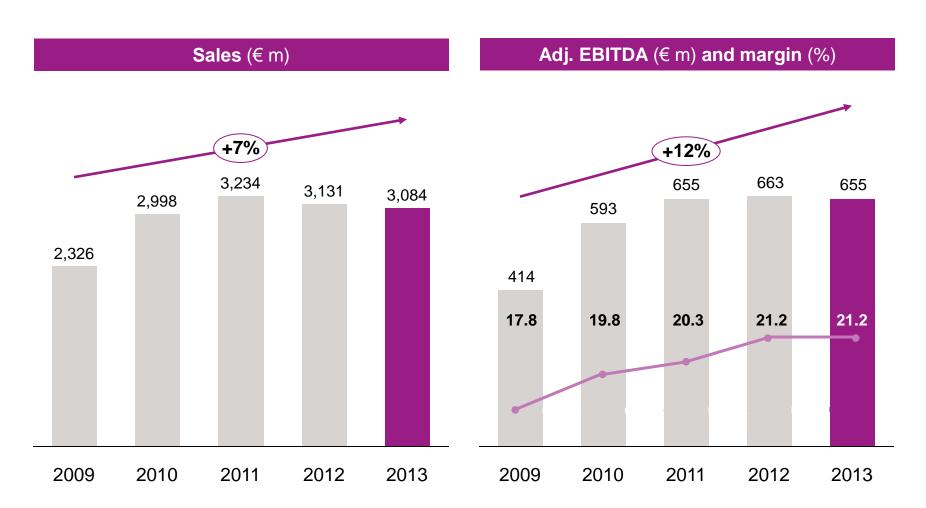




Adj.	2010	2011	2012	2013	2014
EBITDA =		O	<del></del>	<del></del>	$\longrightarrow \bigcirc \longrightarrow$
margin	19.8% 🐬	20.3%	21.2% 🛪	21.2%	н1: 23.2% 🐬
Data prior to 2015 resta	atements; excl. Carbon B	lack			

### Strong financial track record Constantly increasing operating margin

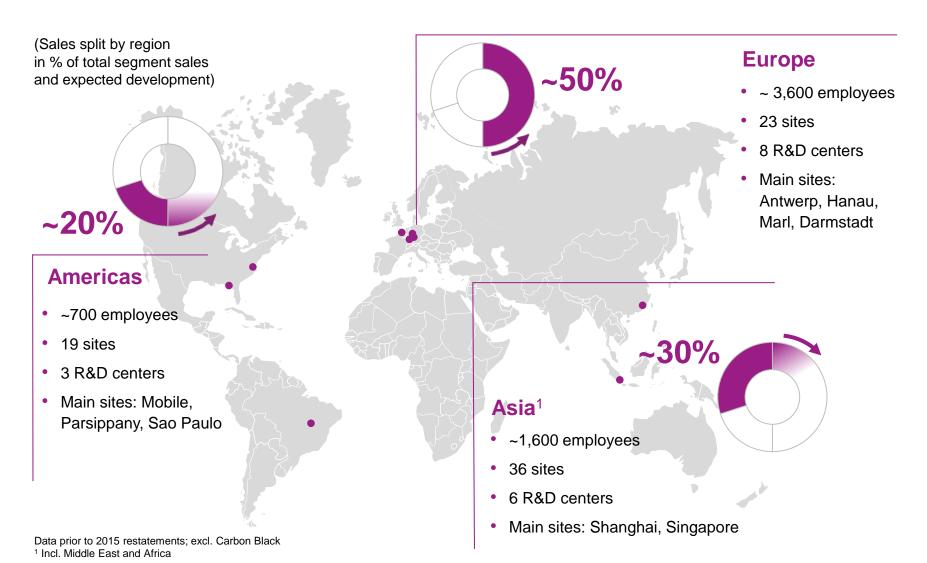




Data prior to 2015 restatements; excl. Carbon Black

# Global operations Increasing sales share in markets outside Europe driven by growth investments





### End market split & growth rates Attractive and high-growth end markets





Lead acid batteries: ~5%

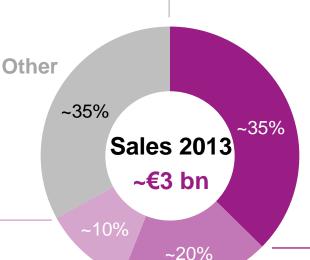
Feed: ~4-6%

Industrial & Petrochemicals, Life Science and Polyolefin

Catalysts: ~4-5%

High Performance Composites:

~5-6%



#### **Selected market growth rates:**

Low rolling resistance tires: ~10%

Light vehicle tires: ~5%

Viscosity modifiers: ~5%

Automotive, transportation & machinery

Construction

#### **Selected market growth rates:**

Coatings & industrial flooring: ~4-5%

Coatings, paintings & printing

#### **Selected market growth rates:**

Matting agents: ~3-5%

Specialty Additives & Resins: ~6%

#### Innovative solutions for the automotive industry



#### Fuel savings and emissions reduction



Low rolling resistance tires¹
with silica-silane reinforcing
system reduce fuel
consumption
by up to 9%

### Lightweight design



Crosslinkers enable the production of robust thermoset composite material, used esp. for lightweight vehicles, which are lighter<sup>2</sup> by up to

### Surface technologies



Silane modified hybrid crosslinkers enable scratch-resistant automotive clear-coats, reducing loss of gloss and refinishing needs by<sup>3</sup>

**15**%

<sup>&</sup>lt;sup>1</sup> EU label category A vs category G tires

<sup>&</sup>lt;sup>2</sup> Body in White – concept plus some exterior parts in composite versus conventional metal technology (internal study)

<sup>3</sup> Industry typical scratch resistance test comparing current technology vs silane modified hybrid technology after 1500 hours accelerated weathering

### Enabling the development and construction of bigger and more efficient wind turbines



#### **Crosslinkers**

Crosslinkers enable
composite materials
used in large rotor blades
of modern on- and
offshore wind turbines.

**80%** of today's wind blades are based on this technology.

#### **Oil Additives**

Additives for wind turbine gear oils deliver reliability, extended service life and reduce "oil cost" by up to

**20**%

#### **Silica**

Silicas improve properties of high-performance adhesives giving greater stability to large rotor blades with a length of up to 75 m



Silicone Epoxy Resins enable excellent anti-corrosion coatings for heavy duty applications with 4 % thinner films.

### Common theme for the segment "Small volume, big impact!"





- Focus on performance-impacting and value-driving components
- Minor share of cost in most end products
- High degree of customer intimacy



- · Low risk of substitution
- Increased pricing power (value-based pricing)
- Long-term customer relationships

### Key success factors

High customer intimacy through delivering tailor-made, mission-critical solutions



Customer proximity and strategic partnership Performance-impacting and value-driving solutions

Technology platforms and core competencies

- Long-term relationships with industry leaders
- Strategic alignment on top management level
- Customer- and marketdriven innovation projects









- Silicon platform
- Isophorone chain
- Siloxanes and polyether technology platforms
- Industry teams
- Innovation-driven and application know-how
- Focus on technical service

### Targeted investment projects to continue profitable growth track record





#### **New silica plant in Brasil**

- Serve attractive South-American market with locally produced silica
- First plant for highly dispersible silica in South America



#### New isophorone chain in Shanghai

- Regional diversification of asset base with five fully integrated isophorone chains in Europe, US and now Asia
- Strengthen leading market position

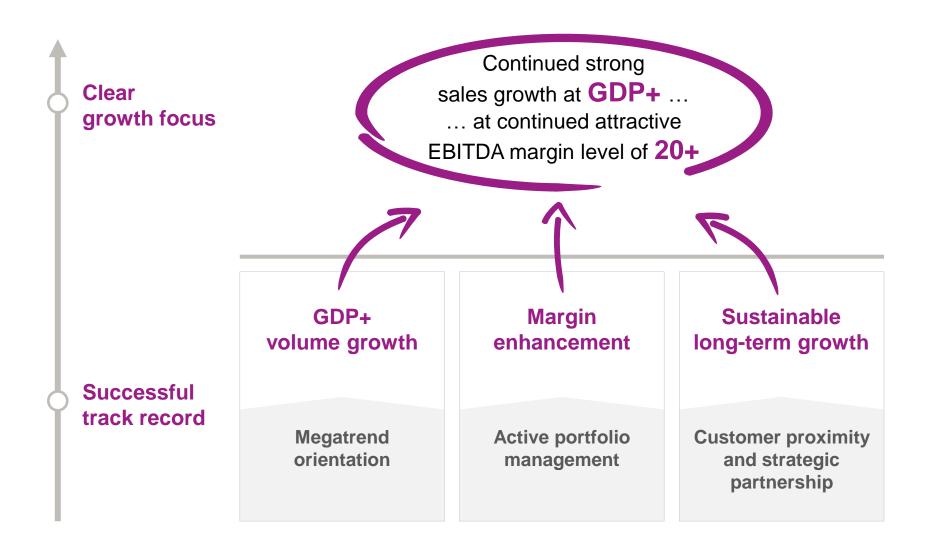


#### Oil Additives expansion in Singapore

- Capacity increase needed to serve growing demand
- Market growth strongest in Asia

### Resource Efficiency has set the course to continue the successful growth story





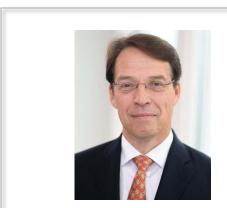
# Reorganization of group structure Greater entrepreneurial independence and more targeted management for Resource Efficiency



#### Clear growth focus

- Above average growth-rates
- High returns on invested capital
- Dedicated resource allocation
- Differentiated management of businesses tailored to specific needs

#### **Management Team Segment Resource Efficiency**



Dr. Claus Rettig Chairman



Dr. Johannes Ohmer Managing Director



Simone Hildmann Head of Finance





**Evonik Capital Markets Day 2014** 

Andreas Fischer Head of BL Silica Hanau, 2 October, 2014



#### Silica

#### Strong pillar in Evonik's specialty chemicals portfolio



eament

**Resource Efficiency** 

Sales: ~€3.8 bn

Adj. EBITDA / margin: ~€800 m / ~21%



Silica (~25% of segment sales)

Crosslinkers (~10%)

Coating & Adhesive Resins (~10%)

Coating Additives (~5%)

Coating Additives (~5%)

High Performance Polymers (~10%)

Oil Additives (~15%)

#### Silica

### Tailored product properties for environmentally friendly and energy efficient solutions





High silica content leads to low rolling resistance and excellent traction in tires



Silica improve properties of adhesives, giving greater stability to large rotor blades





in liquid agrochemical formulations



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#### Business at a glance Leading silica supplier with full coverage



Top

#1

Supplier for fumed <u>and</u> precipitated silica

20

Production sites with global coverage

32

Industries served by industry experts

282

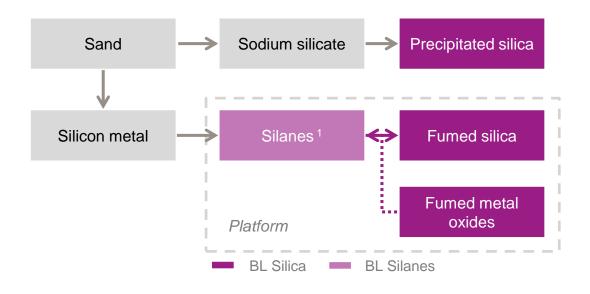
R&D and Applied Technology experts

>100

Products to solve customer challenges

## Product portfolio capabilities From sand to a broad range of tailor-made silica solutions





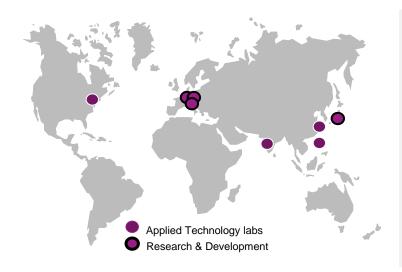


#### **Characteristics**

- Synthetic amorphous silica (SAS) with high surface and low density
- Particle size and structure, as well as surface characteristics the main differences between the two technologies – further optimization via particle design possible
- Available in powder form, as granules or dispersions

# Technological capabilities Outstanding expertise in designing organic particles and surface properties

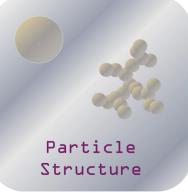




- Unique product portfolio of larger volume products as well as customized solutions
- Broad commercialized technology base
- Long-standing in-house cooperation within Resource Efficiency segment
- Worldwide setup of Research and Applied Technology Centers

### Market differentiation based on outstanding technological competences to design tailor-made particles and product properties





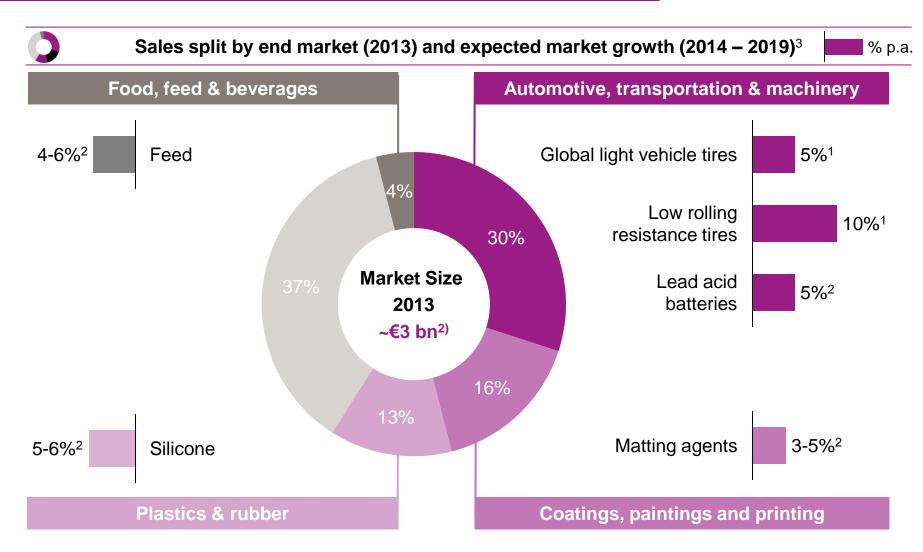




#### Market focus

### Well-balanced end market split with exposure to attractive growth markets





### **Applications and functionalities**Broad application spectrum in diversified end markets



#### **Applications**

#### **Functionality examples**

Tire and MRG<sup>1</sup>

- Reduced rolling resistance of "Green Tires"
- Increased tensile strength and hardness of e.g. belts



Silicones and Adhesives

- Tear resistance in silicones
- Flow control of bonding pastes in windmill production



**Coatings** 

- Matting agent of choice for waterborne coatings
- Rheology control additive in automotive coatings
- White extender for paints



Health care and Home care

- Tableting aid and carrier for drugs
- UV-filter for suncreams
- Thickening agent for toothpaste



Agriculture, Food and Feed

- Anti-settling in liquid agrochemicals
- Carrier for liquid ingredients (e.g. vitamins)
- Anti-caking during food processing

<sup>&</sup>lt;sup>1</sup> Mechanical rubber goods October 2, 2014 | Evonik Capital Markets Day 2014 | Silica



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# **Key success factors**Tailor-made solutions based on deep understanding of customers' needs



## Broad product & industry portfolio

- Precipitated silica and fumed metal oxides
- Broad variety of specialties
- Options to customize



- Unbiased advising
- Cross-selling potential
- Innovation leader









## Strong customer intimacy

- Future winner concept and industry teams
- Strong brands
- (Technical) service orientation



- Long-term relationships with key customers
- Communication and support on par level

## Global production network

- Production platforms in all major regions
- High quality standards
- Global coordination and cross-regional support



- Preferred partner for global businesses
- Supply security
- Customer proximity



# Spotlight food and feed Broad portfolio enables to act as advisor for the best customer solution



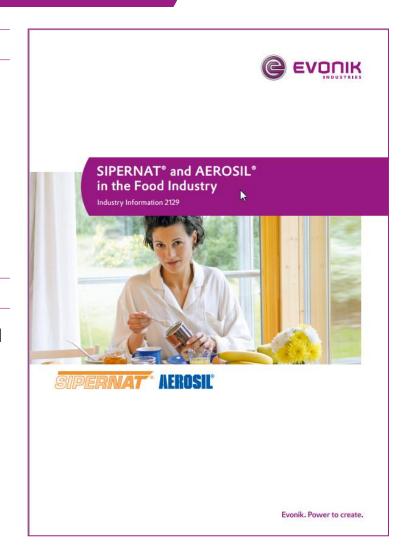
#### **Industry needs**



- Silica as free flow aid in food and feed processing
- Customer specific formulations

### **Evonik offering**

- Fumed and precipitated silica products manufactured under food additive regulations (HACCP)<sup>1</sup>
- Industry experts and applied technology team promotes both products in parallel
- Customer gets an objective advise on the optimal solution for his requirements



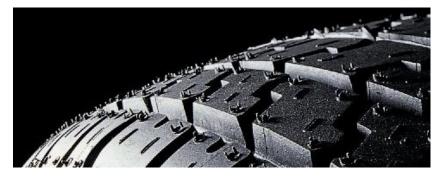
# Spotlight tire industry Customer intimacy has to be re-earned day per day



#### **Industry needs**

- Just-in-time deliveries and full supply security
- Consistent quality with growing requirements
- Easy-to-disperse products for fast processing
- Local supply with global quality also in emerging growth markets





### **Evonik offering**

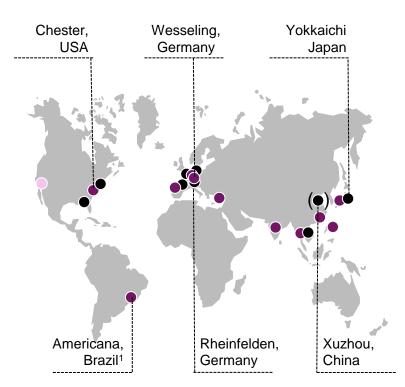
- Strategic alignment on top management level
- Global key account managers as internal voice of the customer
- Customer and market driven innovation projects incl. joint innovation projects
- Handling and applied technology experts to solve process challenges
- Global quality standards and production network to support regional expansion

# Global production network Global production platform combined with regional customer proximity



### 20 silica plants globally





- Global production network with presence in all major silica markets
- Combination of
  - World scale production plants to realize economies of scale
  - Medium-sized plants close to customers
  - Flexible setup for further expansion steps
- Global marketing & sales
   organization with ~180 employees and
   presence in 96 countries
- Superior process technology due to integrated silica-silane production platform

<sup>&</sup>lt;sup>1</sup> Under construction October 2, 2014 | Evonik Capital Markets Day 2014 | Silica



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# Targeted investment strategy Flexible and stepwise approach for expansion of global silica platform



#### Selective investment approach depending on the situation in the respective markets

1

Diluting fixed costs by stepwise **expansion** of existing sites

2

Tapping strong growth markets by **new production facilities** 

3

Partnering with strong local players to achieve beneficial cost position



**Example:** Chester, USA



**Example:** Americana, Brazil



**Example:** Xuzhou, China

Regular review of investment decisions according to market developments

# 1 Stepwise expansion of existing sites Example: Chester (USA)



- Existing Evonik site since 1984
- Stepwise expansions tripled capacity until today
- Broad production platform, ranging from larger volume rubber grades to high end matting agents





Chester, Pa., September 9, 2014

#### Latest example:

- Additional 20,000 mt capacity for precipitated silica on-stream in Q3 2014
- Strengthens presence in NAFTA market

# **2 New production facilities** Example: Americana (Brazil)



- First production plant for highly dispersible
   (HD) silica in South America
- Tapping Latin American growth markets by new production facility currently mainly served by imports
- Attractive specialty segments in South America's food, feed, and agricultural industries
- Tire labelling in Brazil from 2016 onwards as additional growth driver
- Investment: mid-double-digit million € range
- Plant scheduled to go on stream in 2016





# 3 Partnering with strong local players Example: Xuzhou (China)



- New site for fumed silica and ultrapure silicon tetrachloride in China
- Attractive cost position via fence-tofence partnership with leading silicon producer (CGL)
- >20,000 mt total capacity to be built in Xuzhou
- LOI Evonik-CGL signed in July 2014
- Commissioning scheduled for 2016
- Basic engineering has started

### **Main applications**



Ultra-pure silicon tetrachloride:

Fiber optics needed to expand China's broadband networks (optic fiber cable)



#### Fumed silica:

Silicone industry, adhesives & sealants, gel batteries (E-bikes)



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## **Summary**Silica well-positioned to write the story of tomorrow





- Leading silica producer with superior portfolio of larger volume products and specialties
- Outstanding particle design competence as technical differentiator
- Well-balanced end market split in attractive growth markets



- High customer intimacy and innovation partnerships with industry leaders
- Flexible and stepwise approach for expansion of unrivaled global silica platform



# "Invented to improve" Business Line Silica

Backup

## Facts & figures Largest producer of amorphous silica with more than 70 years experience



#### **Precipitated Silica**

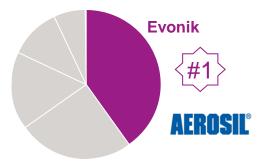
## **Evonik** Solvay **PPG** OSC

#### **Main competitors**

JM Huber

- Close customer relationships, esp. with tire manufacturers
- Broad range of end markets with strong established brands
- Ongoing global expansion program

#### **Fumed Silica**



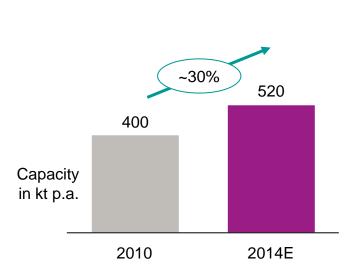
#### Main competitors

- Cabot
- Wacker
- Tokuyama

- Broadest product offering
- High brand awareness
- Strong process and applied technology (> 70 years of experience)
- Fence-to-Fence partnerships

# Silica master plan supports #1 position globally Capacity expansion steps since 2010





- Evonik precipitated silica capacity expansion by ~30% over last 4 years
- Targeted and selective expansion steps across all major regions
- Meeting strong customer demand

Expansion steps<sup>1</sup>

	Asia
<ul><li>India</li></ul>	2011/2012
<ul><li>Taiwan</li></ul>	2011/2012
<ul> <li>Thailand</li> </ul>	2014
<ul> <li>Japan</li> </ul>	2015 <sup>2</sup>

		Americas
•	USA	2014
•	Brazil	2016 <sup>2</sup>

		Europe	
•	Turkey		
•	Germany		2010 – 2012
•	Spain		

<sup>&</sup>lt;sup>1</sup> Date of commissioning

<sup>&</sup>lt;sup>2</sup> Under construction



**Evonik Capital Markets Day 2014** 

Ralf Duessel Head of BL Oil Additives Hanau, 2 October, 2014



# Positioning within Resource Efficiency Oil Additives as important contributor to portfolio of resource efficient customer solutions



Segment **Resource Efficiency** Sales: ~€3.8 bn Adj. EBITDA / margin: ~€800 m / ~21% Oil Additives (~15%) Crosslinkers (~10%) **Business Lines Coatings & Adhesive Resins** Silica (~25% of segment sales)  $(\sim 10\%)$ Silanes (~10%) Coating Additives (~5%) **High Performance Polymers** Catalysts (~5%)  $(\sim 10\%)$ **Active Oxygens** (~10%)

# Oil Additives at a glance Leading global supplier of unique, high performance lubricant, fuel and refinery additives



#1

supplier of resource efficient viscosity modifiers

25

largest lubricant companies are all Evonik customers

5%

R&D ratio (incl. technical service)

>5 million

tons of CO<sub>2</sub> emissions avoided through the use of our technologies

GDP++

annual sales growth over last 10 years

75%

diversity in management positions



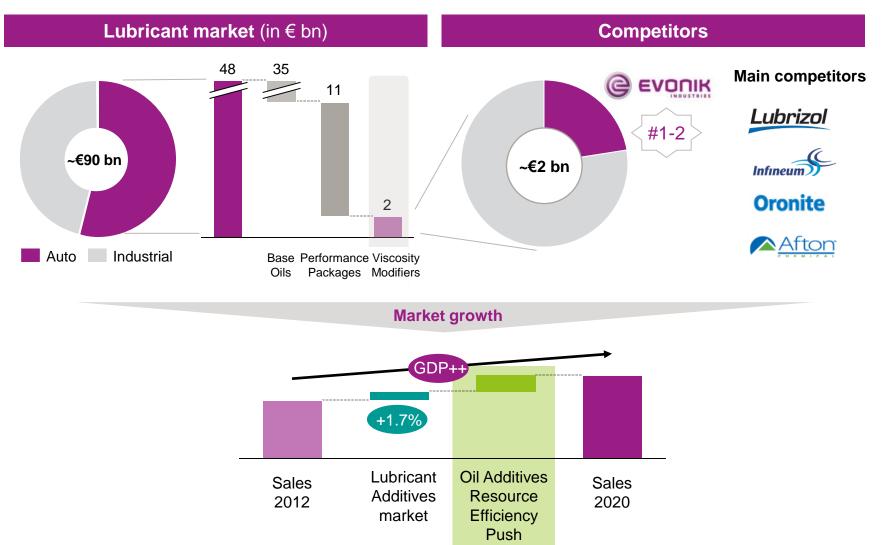


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# Facts & figures Well positioned in lubricant additives market

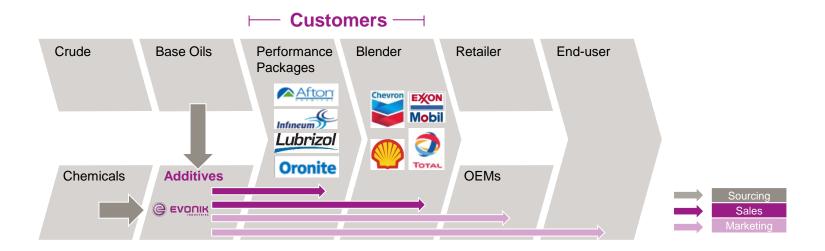




# Facts & figures Integrated supply chain with high customer intimacy and OEM reputation



### Integrated supply chain with downstream relationships



- Integrated global supply chain and production network
- Technical support for customers, own R&D and product development capabilities
- Downstream OEM and end-user relationships and reputation

# Facts & figures Enabling our customers to improve resource efficiency of their products





A DYNAVIS® technology formulated hydraulic fluid saves up to

25% with heavy stone milling.



DRIVON™ technology for transmission and engine oils can save the value chain up to € 600 per car.



NUFLUX™ technology for wind turbine gear oils deliver reliability, extended service life and reduce "oil cost" by up to

20%

### Facts & figures

# Broad product portfolio improving friction, wear and flow performance of base fluids



#### **Main products**

Viscosity Index Improvers (VII)

Pour Point Depressants (PPD)

Cold Flow Improvers for Biodiesel

Synthetic Base Fluids

### **Application examples**



**Automotive:** engine oil additives contribute to fuel economy, engine cleanliness and reduced wear.



Heavy machinery: additives in hydraulic fluids improve cold temperature performance and fuel economy.



**Aviation:** hydraulic fluids with improved fire resistance, reliability and safety.



Wind turbines: Gear oils for maximized energy yield and minimized wear in gearboxes.



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# Key success factors Tailor-made solutions based on deep understanding of customers' needs



#### Global reach

- 5 production plants around the globe
- 5 technical service facilities
- Sales force in >35 countries
- Strong Key Account Management

#### **Technology leadership**

- Core competencies include:
- Deep understanding of applications
- Hydrocarbon fluid viscometrics, rheology and tribology
- Polymer design

### **Customer intimacy**

- Novel technologies for formulation components and base fluids
- Tailor-made products improve friction, wear and flow performance
- Application- and solution-driven
- Strong focus on technical service
- Strong brand positioning

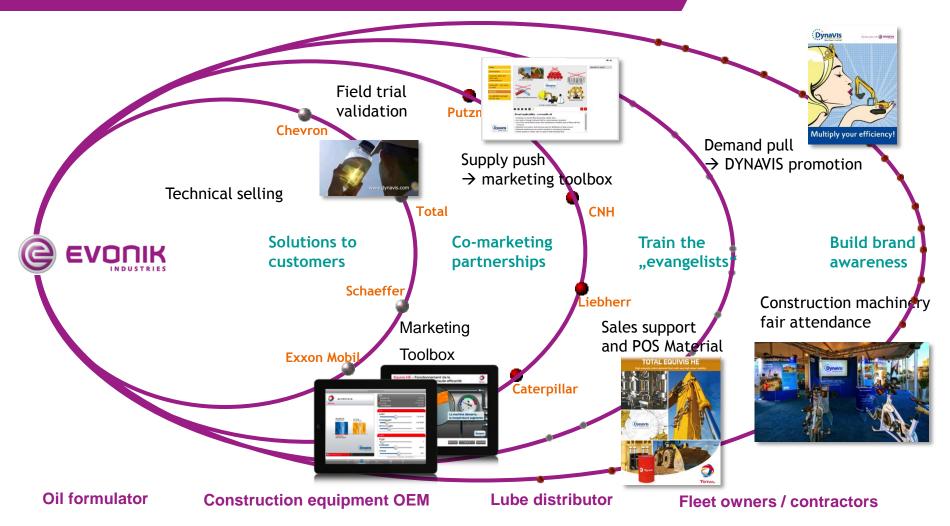






# **Customer intimacy**Example "DYNAVIS inside"







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# Future growth drivers Efficiency increases important criteria for lubricant customers



### Efficiency increases are key to

- mitigate increase in emissions
- meet future governmental emission limits
- prolong lubricant life



**Customers and competitors** are focusing on efficiency and sustainability



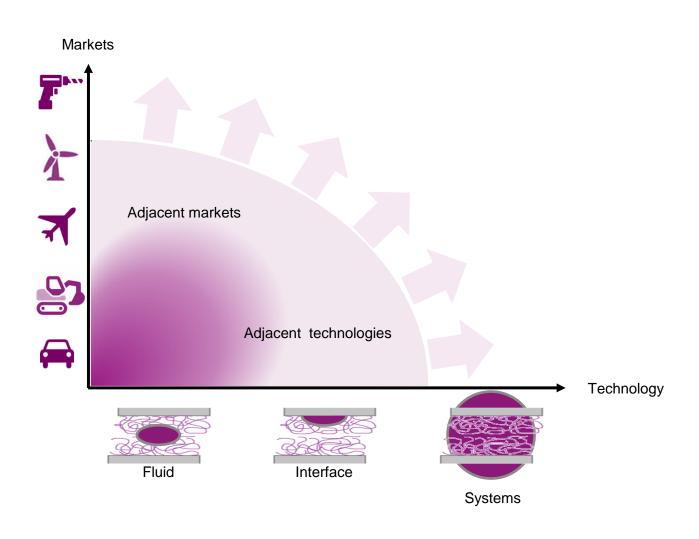
Efficient lubricants will also play a more critical role to enable the use of renewable energies



Resource
efficient
lubricants
require higher
concentrations
of performance
additives

# Future growth drivers Broadening the scope of our portfolio







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# Summary Oil Additives well positioned to drive sustainable and profitable growth









- Leading global supplier of unique, high performance lubricant, fuel and refinery additives
- Integrated supply chain with high customer intimacy and OEM reputation
- Tailor-made solutions based on deep understanding of customers' needs
- Well positioned to drive future growth by
  - Resource Efficiency push in existing market,
  - and broadening of the portfolio into adjacent markets and technologies





**Evonik Capital Markets Day 2014** 

Stefan Silber Head of BL Coating Additives Hanau, 2 October, 2014



## Positioning within Evonik Coating Additives as "customer enabler" for resource-efficient solutions



**Business Lines** 

### **Resource Efficiency**

Sales: ~€3.8 bn

Adj. EBITDA / margin: ~ €800 m / ~21%



Silica (~25% of segment sales)



**Silanes** (~10%)



Catalysts (~5%)



**Active Oxygens** (~10%)



Oil Additives (~15%)







**Crosslinkers** (~10%)



**Coating & Adhesive Resins**  $(\sim 10\%)$ 



**High Performance Polymers**  $(\sim 10\%)$ 







1	Facts & figures
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# Business at a glance Leading supplier for high performance additives and specialty resins



Top #2

supplier for high performance additives and specialty resins 25

innovation partnerships with leading customers

GDP++

annual sales growth over last 10 years

>450

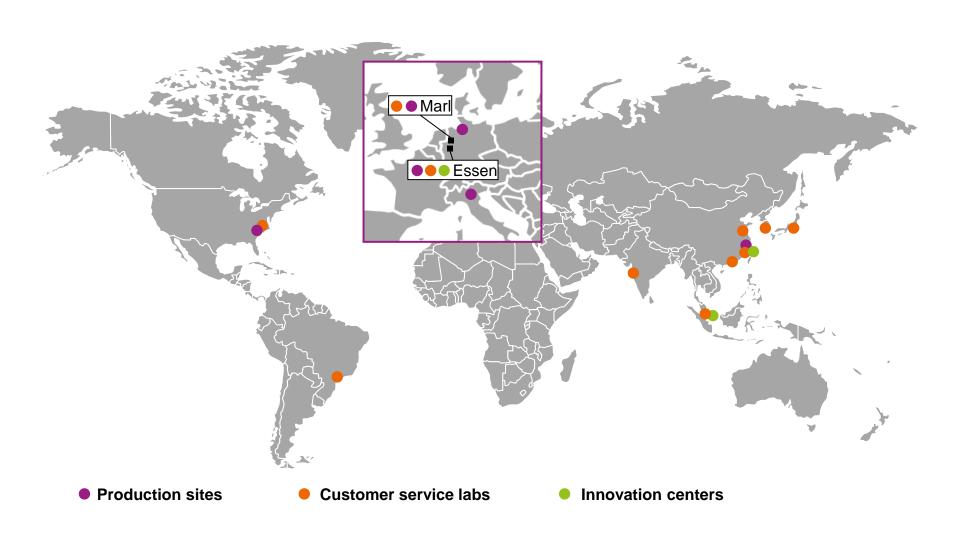
tailor-made products for broad spectrum of applications in diversified end markets

>5%

R&D ratio

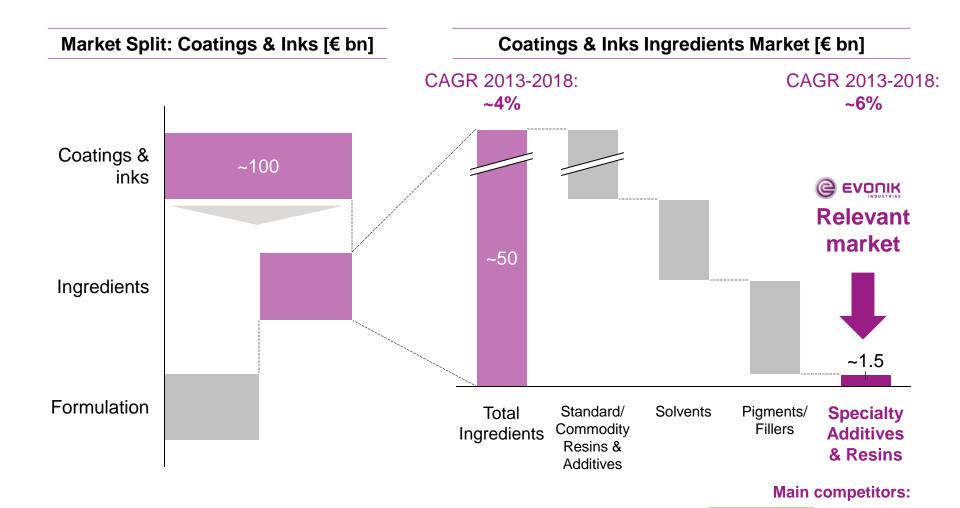
# Global customer access Customer service labs in all major regions





## Niche positioning in coatings & inks market Attractive "low-volume – high impact" business





**O** BYK

Additives & Instruments

DOW CORNING

**D-BASF** 

The Chemical Company

# Major Applications and Functionalities Broad application spectrum in diversified end markets



### **Applications Functionality examples Architectural** Water protection of façade paints **Paints** Defoaming of wall paints Improved substrate wetting on packaging materials **Printing Inks** Gloss increase of packaging inks for better appearance Stronger anti-blocking properties **Wood Coatings** Increased scratch resistance of parquet coatings **Pigment** Increased color strength of pigment concentrates for Concentrates color rich paints **Industrial &** Longer lasting durability of industrial & automotive **Automotive** coatings, e.g. by better chemical and weathering Coatings resistance

# Application examples Innovative and mission-critical solutions with high value-added for the end customer



### **Defoaming**



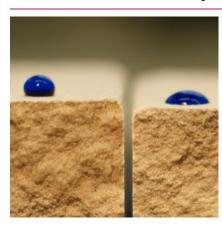
Defoamers eliminate foam in the coating film

### **Anti-Graffiti protection**



Use of anti-graffiti additives results in strong protection of coatings against vandalism from sprayers

### Water protection



External façade paints are well protected against rain and humidity

### **Scratch resistance**



Nanocomposites improve scratch resistance of coatings



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# **Key success factors**Tailor-made solutions based on deep understanding of customers' needs



# Extensive R&D, application & formulation know how

- Global technical service with labs in all major regions
- R&D hubs in Europe and Asia focus on resource efficient products, e.g. for waterborne coatings
- High throughput experimentation as powerful support tool for R&D





### Partnering with customers

- Strategic partner to key and focus accounts
- Dedicated, cross regional teams for global accounts
- Joint development projects for individual and customer specific solutions



### Strong technology base

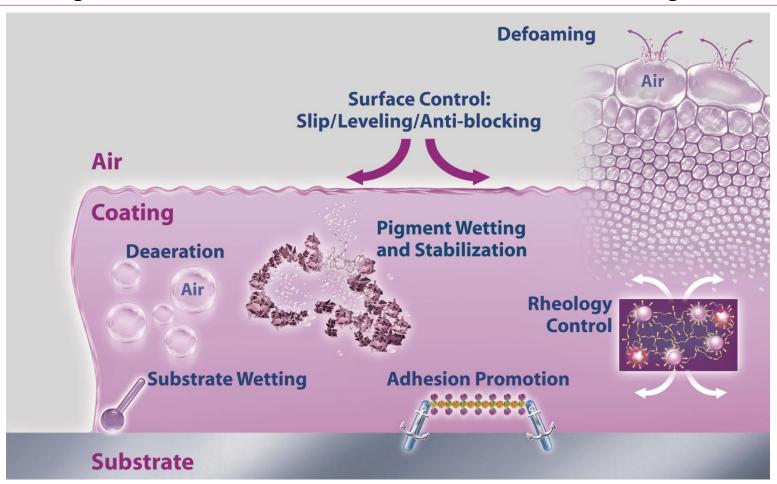
- Broad technology base (siloxanes & polyethers)
- Integrated production technology
- Capable to produce unique and individual products
- Attractive economies of scale in R&D, production and logistics



# Extensive application & formulation know how Customized solutions for coatings & inks



Based on its extensive know how in surface chemistry, Coating Additives delivers individual solutions to various issues of coatings and inks



# Partnering with customers Joint development projects as key element of innovation partnership approach





# Phase 1: Initiation

# Phase 2: Development

# Phase 3: Application testing

# Phase 4: Business

#### **Activities**

- Regular dialogue with customers; discussion of future projects
- Excl. development agreements
- Kick-off development project

- Discussion of performance and other specifications
- Development of new structures and products based on specifications
- Lab and field performance tests
- Detailed feedback and discussion of test results
- Tests at end customers

- Final approval
- Final negotiationsStart of production
- Delivery to the customer

**Customer** functions

Evonik functions

Purchasing; Management

Key Account Mgmt.; BL Management

Iterative, multi step process

R&D; technical service

R&D; technical service

Purchasing; Management

Key Account Mgmt.; BL Management







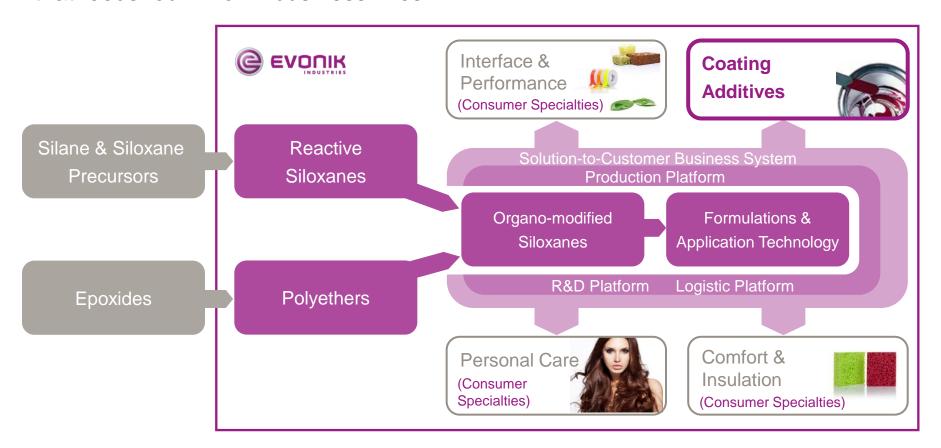


# Strong technology base

Capable to produce unique and individual products at attractive economies of scale



Coating Additives embedded in Evonik's **ORGANO SILICONE PLATFORM** that feeds four Evonik business lines:





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### **Future growth drivers**

With its portfolio, Coating Additives addresses several important trends in coatings & inks market



Trends and growth rates

Environmentally friendly coatings & inks

Modular coating manufacturing

Coatings with increased durability

5% (waterborne paints) 7% (UV cured coatings)

7 – 8 % (universal grinding systems)

6% (High solid anti corrosion coatings)

Solution examples from Coating Additives TEGO® Foamex: High performance foam control agents



TEGO® Dispers:
Dispersants for universal pigment concentrates



SILIKOPON®: Ultra high solid Si-hybrid resins for long-lasting coatings



Coating Additives offers innovative solutions to address current trends in the coatings industry



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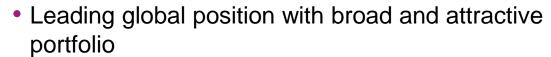
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### **Summary**

## Coating Additives has set the course to continue the successful growth story in the future









 Mission-critical solutions with high value-added for end customers



 Close strategic customer relations and innovation partnerships



- Tailor-made solutions based on deep understanding of customers' needs
- Strong growth opportunities by addressing current trends in the coatings industry

