

# Evonik

# Leading Beyond Chemistry

Strategy Update 2020

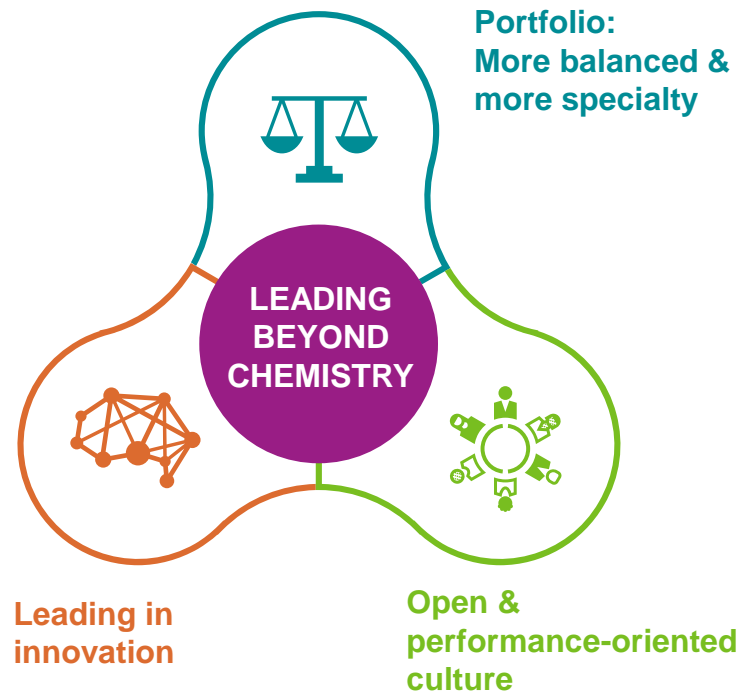
Strategic perspective

May 7, 2020  
Christian Kullmann, CEO

# We delivered on our promises

## Successful transformation along our three strategic focus areas

### June 2017: Strategy Update



### What we have achieved so far

- ✓ **Portfolio transformation** towards higher resilience:  
**80% specialty businesses**
- ✓ **Innovation pipeline** ramping up:  
**€300 m additional sales achieved by 2019**
- ✓ **Performance-oriented culture** implemented:  
**New Compensation & Performance Mgmt. System**



## Performance-oriented culture

Establishment of delivery culture with increased capital market focus

	2017	2018	2019
1 Track record of guidance delivery established	✓	✓	✓
2 Cash conversion <sup>1</sup> significantly improved	from 22% (2017) to 33% (2019)		
3 High level of cost awareness adopted	~€160 m savings achieved by end of 2019 <sup>2</sup>		
4 Diversity as key economic success factor	53% female nominations for top corporate talents		
5 More transparent Performance Management	Group-wide incentive system aligned to financial targets		

Performance-oriented corporate culture with increased capital market focus

1: defined as FCF/Adjusted EBITDA | 2: SG&A program (€120 m of €200 m achieved by end of 2019), Adjust 2020 (€30 m of €50 m achieved), Oleo 2020 (€10 of €20 m achieved)



# Leading in innovation

On track to achieve target of >1 bn sales from innovation

## Innovation Growth Fields



Advanced Food Ingredients



Additive Manufacturing



Sustainable Nutrition



Cosmetic Solutions



Membranes



Healthcare Solutions

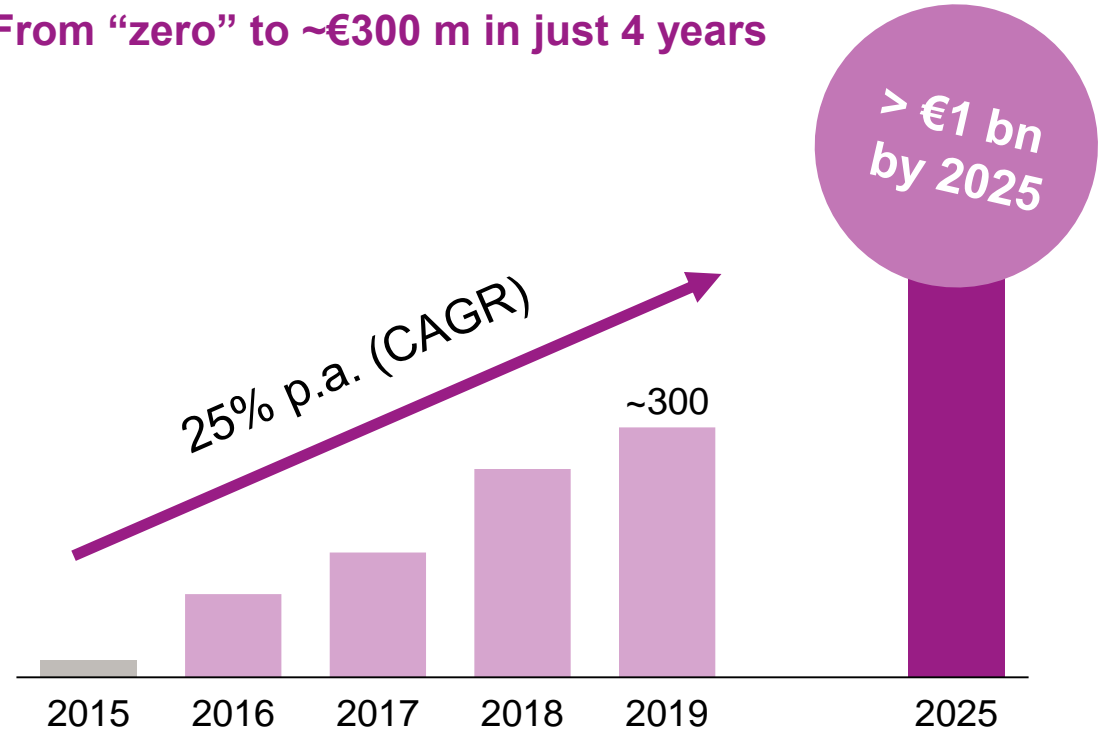


**Sizeable sales base** established in all growth fields

**Above-average margin** contribution

## Sales contribution Innovation Growth Fields

From “zero” to ~€300 m in just 4 years





## Leading in innovation

A well-filled R&D pipeline with different target horizons

Short-term



### Additive Manufacturing

- Evonik's 3D printing portfolio as beneficiary of trend from "prototyping only" into real series production

Mid-term



### Biosurfactants

- Based on Evonik's leading biotechnology know-how
- 100% renewable natural resource & biodegradable

Long-term



### Precision Livestock Farming

- Digital solutions to optimize every aspect of livestock production – in one holistic approach





# Portfolio: More balanced & more specialty

## Decisive and value-accretive portfolio management

### Divestments

~€2 bn cyclical sales

sold at attractive valuation  
(**8.5x** EV/EBITDA)

Ø EBITDA margin: ~**15%**<sup>1</sup>



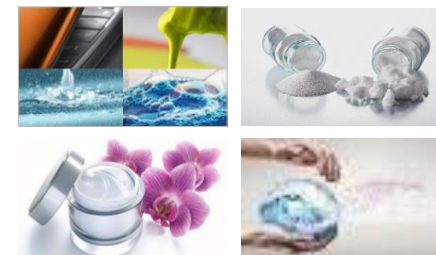
### Acquisitions

>€2 bn resilient sales

Ø multiple of **9.1x** EV/EBITDA  
(incl. synergies)

Ø EBITDA margin: ~**22%**

Delivery of synergies on track (€70 m by end of 2019)



### Decisive and value-accretive portfolio management

- Portfolio cyclicalities & Capex intensity reduced
- More resilient EBITDA margin and improved cash profile

Divestments: Methacrylates business sold for EV of €3 bn (8.5x EV/EBITDA) in July 2019

Acquisitions: Air Products specialty additives business for US\$3.8 bn (9.9x EV/EBITDA incl. synergies & tax benefits) in January 2017 | Dr. Straetmans cosmetics business in May 2017

Huber Silica business for US\$630 m (~7x EV/EBITDA incl. synergies & tax benefits) in September 2017 | PeroxyChem for US\$640 m (7.6x EV/EBITDA incl. synergies) in February 2020

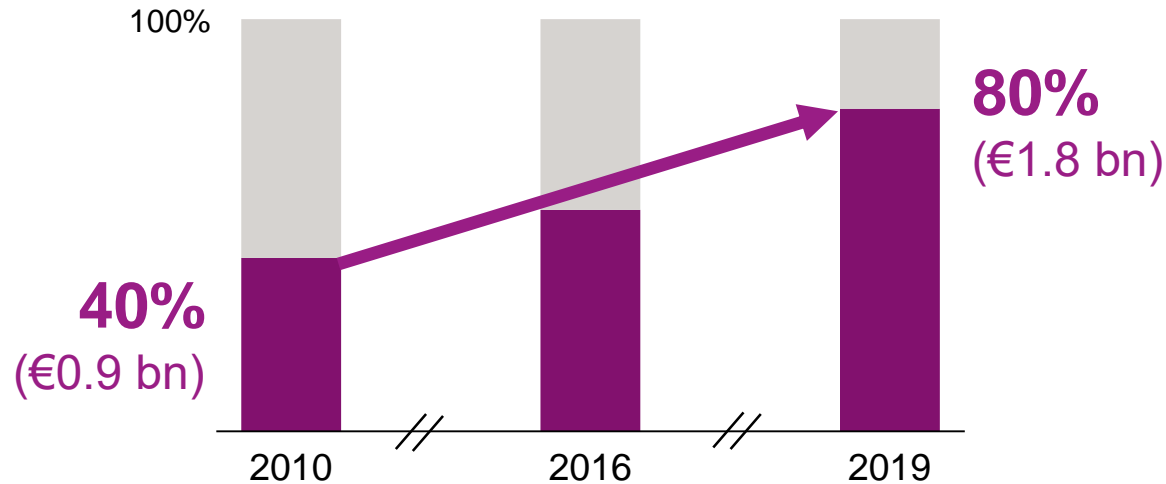
1: 2014-2019



## Portfolio: More balanced & more specialty

Portfolio quality significantly improved – today 80% specialty businesses

### Adj. EBITDA operating businesses



### Portfolio characteristics

- **Specialty businesses** now represent **~80%** of EBITDA<sup>1</sup>
- Specialty businesses with track record of **6% annual organic earnings growth**<sup>2</sup>

Specialty businesses: Specialty Additives, Smart Materials, Health & Care

1: Calculation for operating businesses excluding Services & Corporate | 2: organic EBITDA CAGR (excl. M&A) 2014 – 2019



# Portfolio: Focus on Sustainability

Sustainability important part of portfolio & strategic management decisions

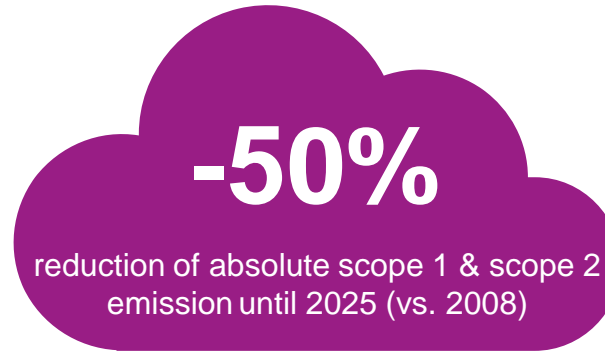
## Excellent Rankings



### Sector leading ESG rankings

Evonik amongst leaders in all relevant ratings

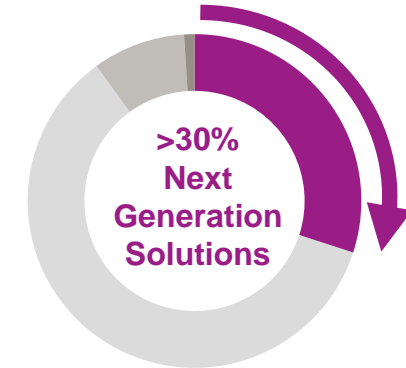
## Environmental Targets



### Ambitious environmental targets

Average reduction of climate-relevant emissions by 3% p.a. affirms strong commitment to the Paris Agreement on Climate Change

## Portfolio Management



### Portfolio aligned to sustainability

>30% of sales with superior sustainability benefits to customers; integration of sustainability into strategic management processes and decisions

“A” MSCI ESG rating (on a scale of AAA to CCC); EcoVadis “Gold” rating; “B-” ISS Oekom rating (on a scale of A+ to D-) and “B” CDP rating (on a scale of A+ to D-)



# Structure follows strategy

## Organization now fully aligned with growth engines



# Rationale for new management and reporting structure

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**Clearly defined strategic roles**

**3 “Growth” divisions with >3% volume growth target  
Performance Materials as “Efficiency” division**



**More homogeneous divisions**

**Common themes & trends in growth divisions**



**Higher transparency**

**4 divisions; sales split for sub-divisions**



**More efficient internal management**

**Clear-cut technology platforms**



**Leaner organization**

**Reduction of 150 FTE, €25 m p.a. savings by end of 2021<sup>1</sup>**

1: mainly in cross-segment- and administrative functions in the operating segments

# Leading beyond chemistry – Growth Divisions

Specialty chemicals portfolio with strong positioning and attractive financials

## Specialty Additives



*Leading positions  
in performance-defining  
specialty additives*

## Nutrition & Care



*Innovation leader in  
resilient Health & Care market  
  
Building a system house for  
Sustainable Animal Nutrition*

## Smart Materials




*Leading player in  
inorganic specialties  
and  
high performance polymers*

**Strong  
positioning...**


**... and  
attractive  
financials**

 Growth track record 3%<sup>1</sup>

 Margin level of 26%


 ROCE of 18%

 Growth track record 4%<sup>1</sup>

 Margin level of 16%

 ROCE of 8%

 Growth track record 3%<sup>1</sup>

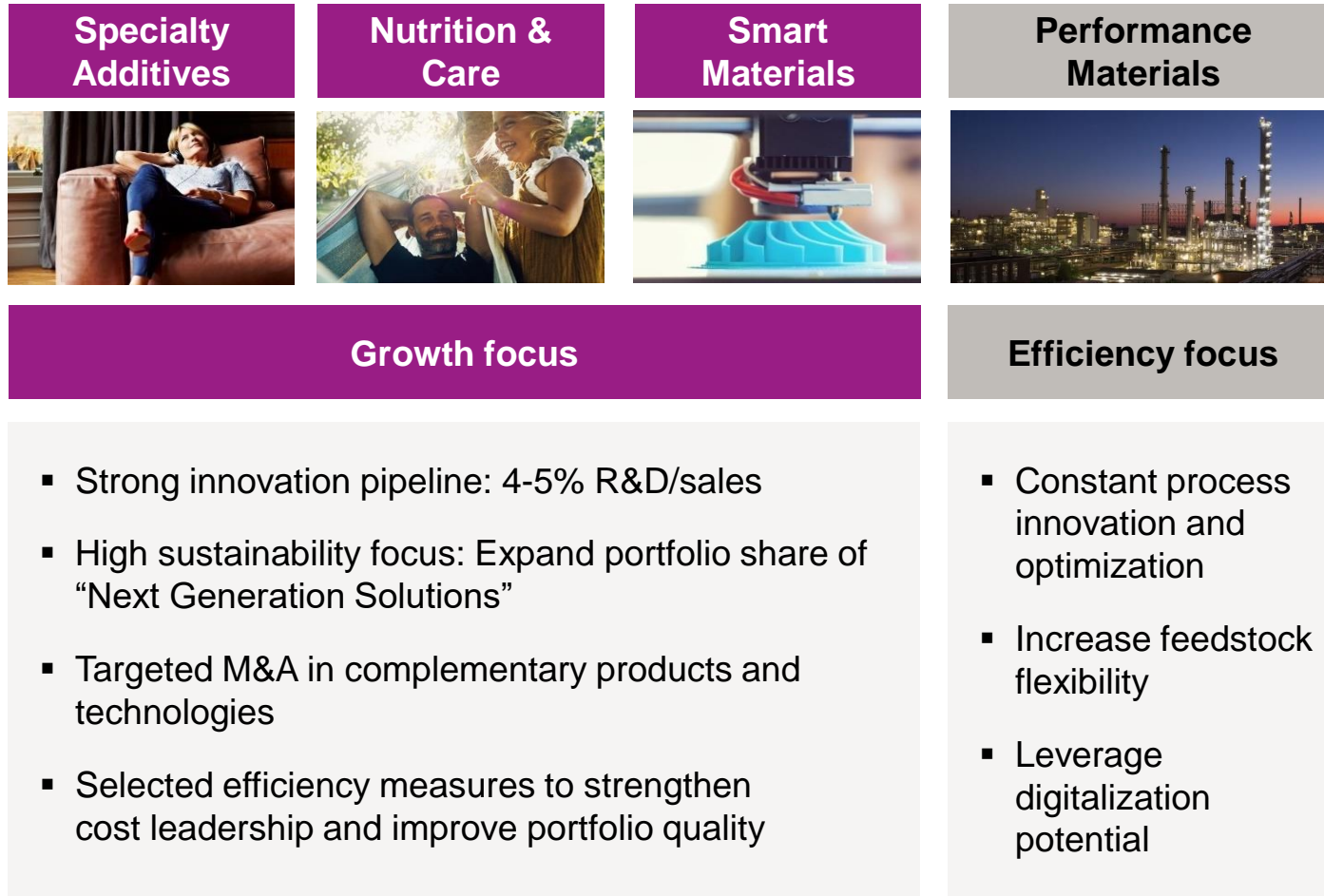
 Margin level of 19%

 ROCE of 16%

1. average volume growth 2015-2018

# Strategic agenda going forward

## Clear strategic and financial targets



### Mid-term Group targets:

- >3%** Volume growth<sup>1</sup>
- 18-20%** EBITDA margin
- >40%** FCF conversion
- 11%** ROCE

1: in growth divisions over the cycle

# Animal Nutrition

## Cost leadership in Methionine - Sustainable Healthy Nutrition is gaining importance

### Efficient Nutrition

- **Cost leadership** in Methionine  
("Adjust 2020" program with €50 m cost savings by 2020)
- Focus on **3 global world-scale hubs**  
(Europe, US & Asia)
- Modular **debottleneckings** to serve ongoing strong market growth
- Securing today's EBITDA margin level **in line with Group margin target**



### Sustainable Healthy Nutrition

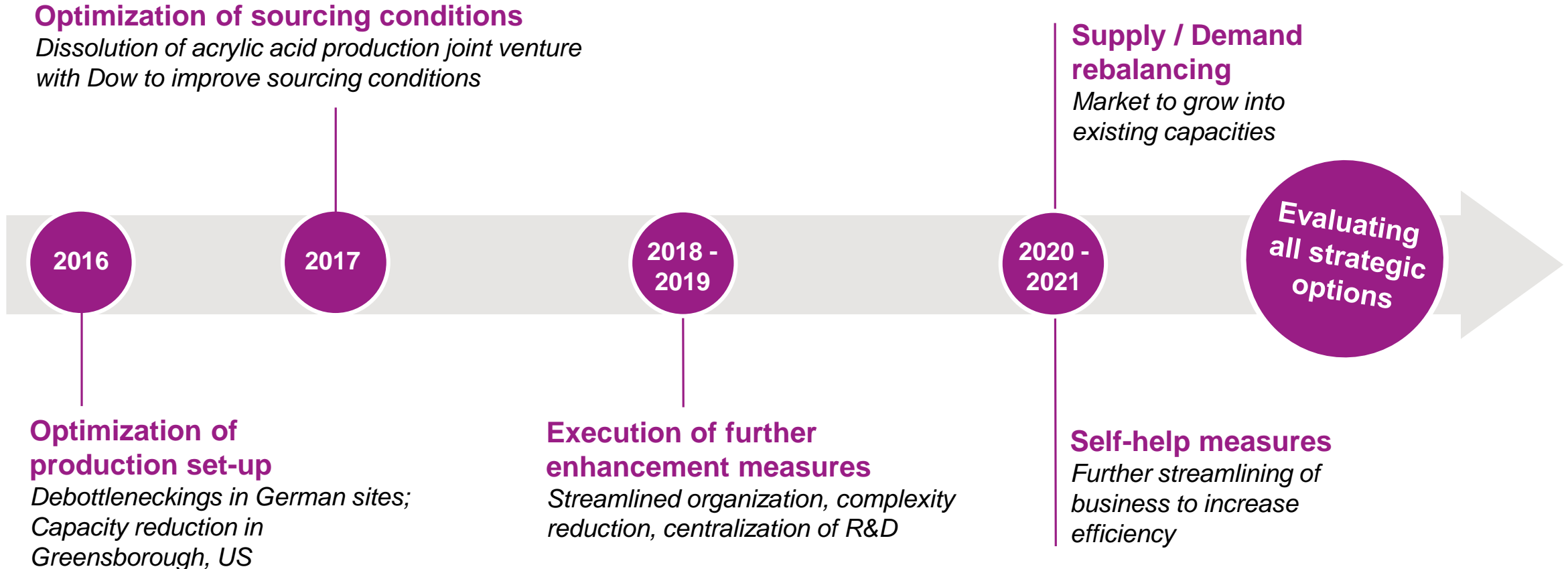
- Building a **system house** for sustainable healthy nutrition
- **Leverage strong sales force** and direct customer access
- **Digital technologies** to optimize every stage of **livestock production**

**>30%**  
margin  
potential



# Strategic perspective for Baby Care

## Evaluating all strategic options to leverage full business potential



# Evonik – A compelling equity story today and tomorrow

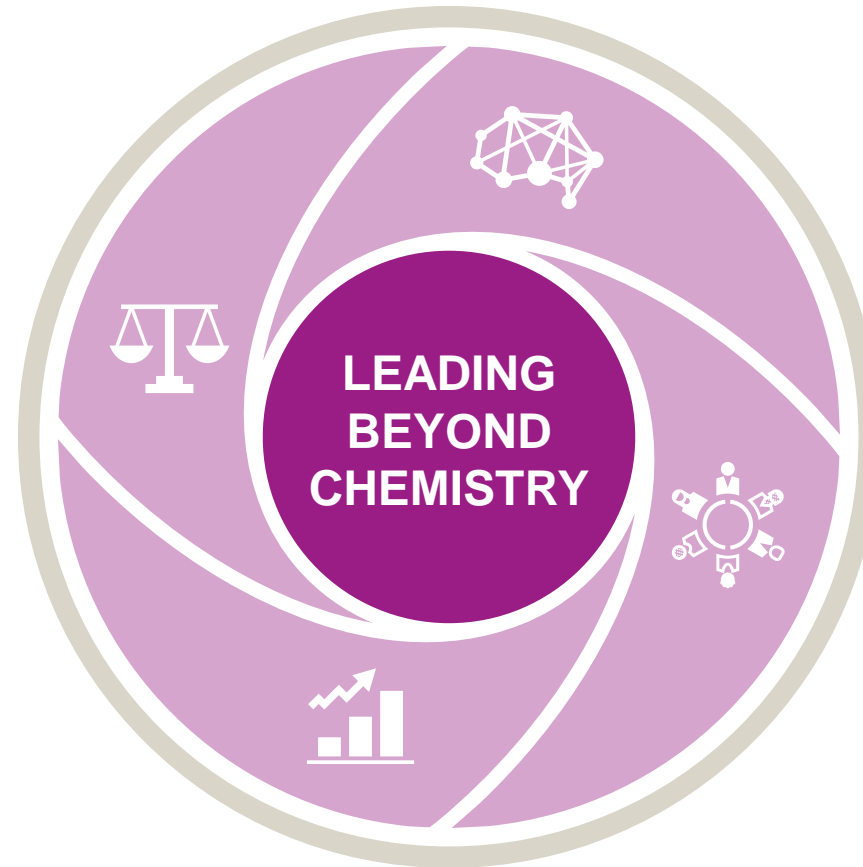
## Leading beyond chemistry to drive shareholder value

### Ongoing portfolio transformation

- Target: Specialty portfolio with 100% growth businesses

### Ambitious financial targets

- EBITDA margin: 18-20%
- Cash conversion ratio: >40%
- ROCE: 11%



### Innovation & Sustainability as growth drivers

- €1 bn additional sales from innovation growth fields by 2025
- Growing portfolio share of “Next generation solutions”

### Performance-driven corporate culture

- Further drive gender & cultural diversity
- Deliver on efficiency programs in Administration & Operations



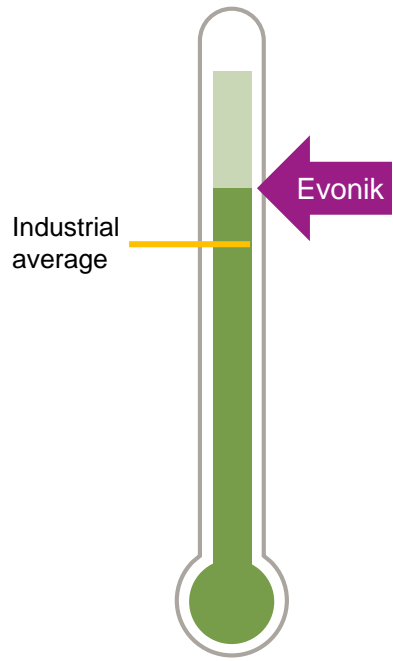
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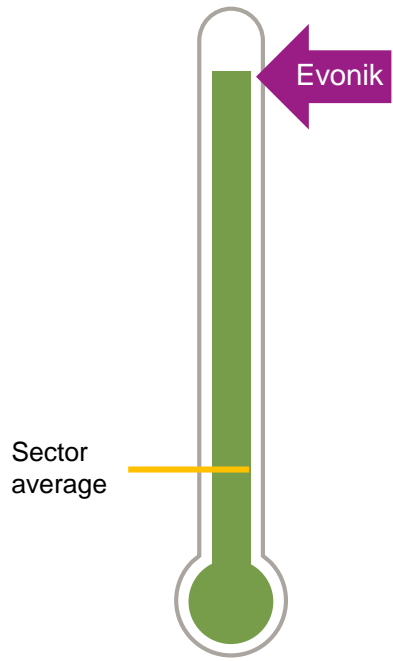


# Backup: Sustainability Rankings

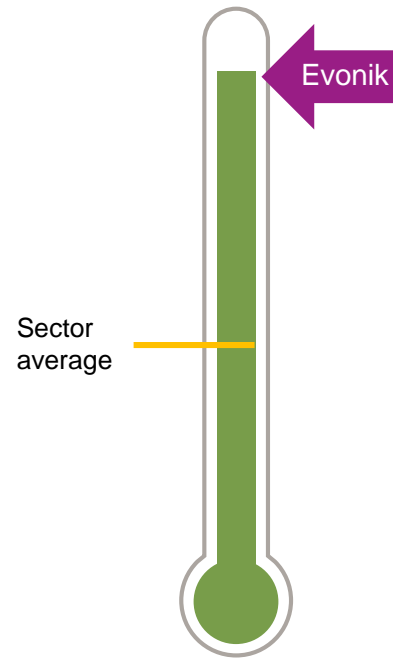
## Evonik best-in-class within chemicals sector in terms of sustainability



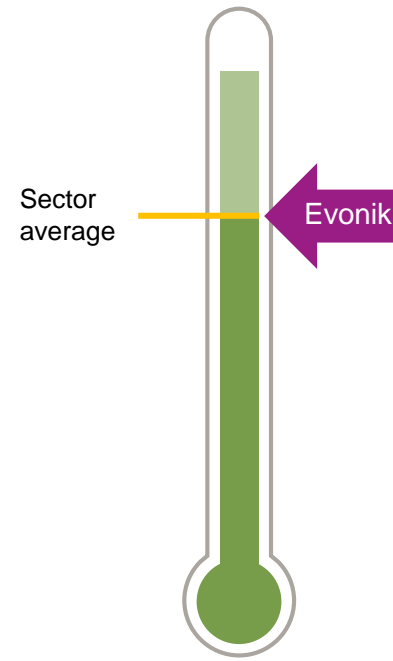
MSCI 



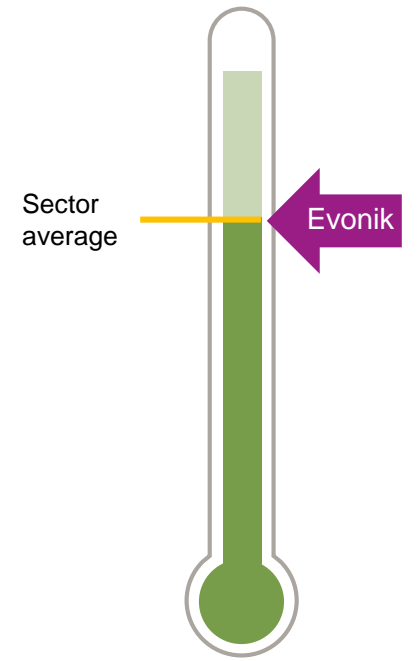
ecovadis



ISS-oekom 



 SUSTAINALYTICS



 CDP  
DRIVING SUSTAINABLE ECONOMIES

 EVONIK  
Leading Beyond Chemistry

# Backup: Evonik Sustainability Analysis – Portfolio Management (1/3)

## Sustainability Analysis integrated into strategy and portfolio decisions

### Portfolio management via sustainability criteria

#### Method



- WBCSD<sup>1</sup> sector **standard approach** aligned to specific requirements of Evonik
- Approach **audited** by PwC



#### Analysis and results



- **99%** of sales covered by Sustainability analysis
- **Classification** of product portfolio according to its **sustainability performance** (A++ to C--)



#### Strategic measures



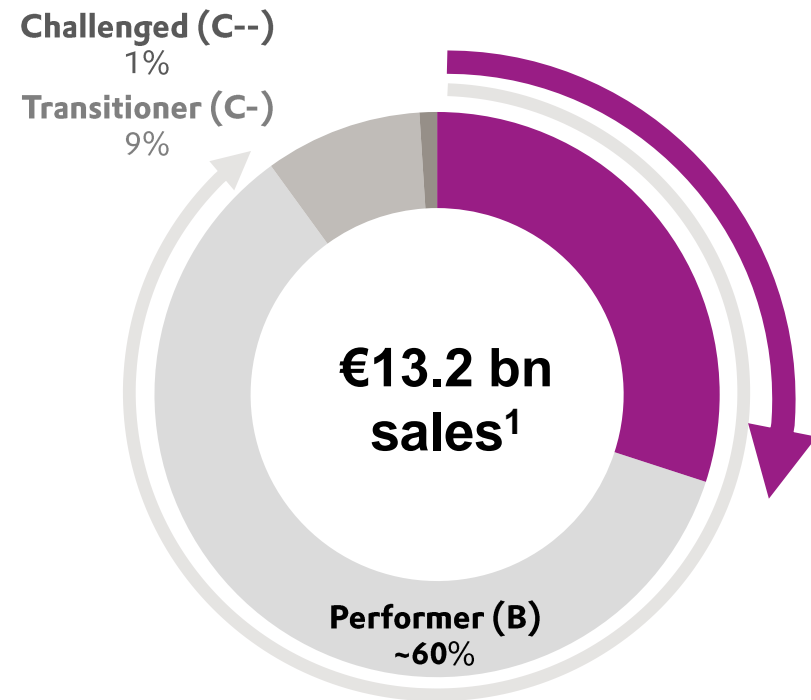
- Analysis part of **strategic portfolio management** e.g. for
  - Investments
  - Innovation
  - M&A



1. Portfolio Sustainability Assessments (PSA) from World Business Council for Sustainable Development

## Backup: Evonik Sustainability Analysis – Results (2/3)

>30% of Evonik’s portfolio with superior sustainability benefits



~90%

generated with products or solutions **above or on market reference** in terms of sustainability

>30%

## “Next Generation Solutions”<sup>2</sup>

- ... address globally **increasing demand** for sustainable solutions
  - ... deliver **above-average growth rates**
- ... are highly **profitable** (in or above margin target range of 18-20%)

### Target to further increase “Next Generation Solutions”

- Challenged products: evaluation of strategic options (transform/exit/divest) within 5 years

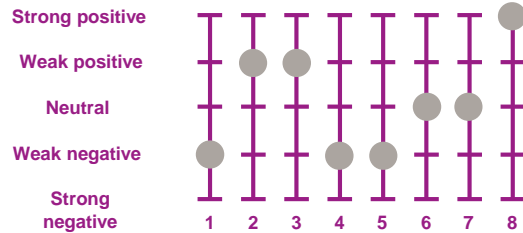
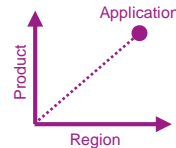
1. 2018 sales continuing operations | 2. “Next Generation Solutions” include “Leader” (A++) and “Driver” (A+) products and solutions

# Backup: Evonik Sustainability Analysis – Methodology (3/3)

I. Defining objectives, scope and process

II. Defining assessment segments

III. Defining market signals



### Market signals

1. Critical substances
2. Regulatory trends and global commissions
3. Sustainability ambitions along the value chain
4. Ecolabels, certification and standards
5. Relative environment and social performance
6. Contribution to ecological and social value creation
7. Contribution to SDGs
8. Internal guidelines and principles

IV. Categorizing the portfolio

V. Reporting and using the result

Are there **strong negative** signals?

Yes

Challenged (C--)

No

Are there **material negative** signals?

Yes

Transitioner (C-)

No

Are there **material positive** signals?

No

Performer (B)

Yes

Are there **strong positive** signals?

No

Driver (A+)

Yes

Leader (A++)

Leader (A++)

Driver (A+)

Performer (B)

Transitioner (C-)

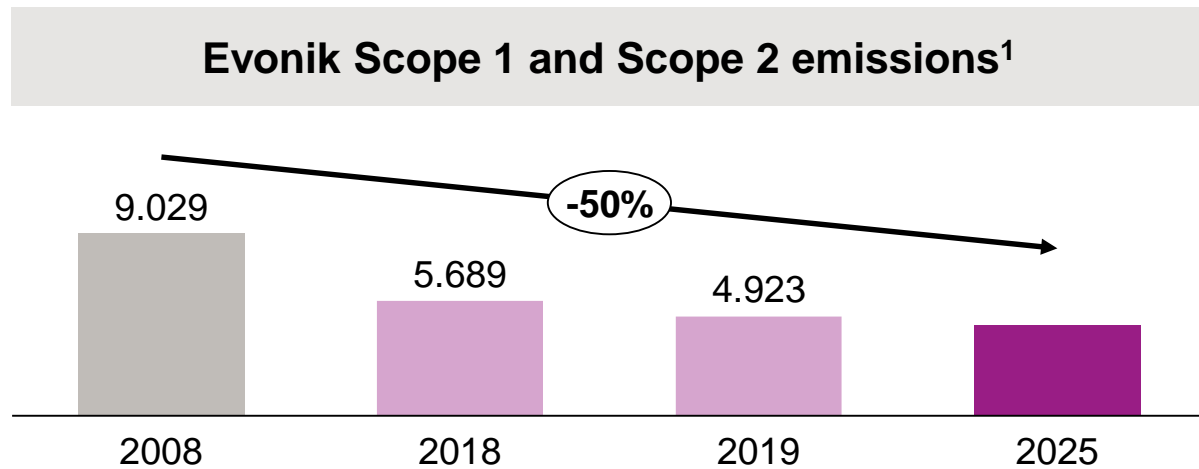
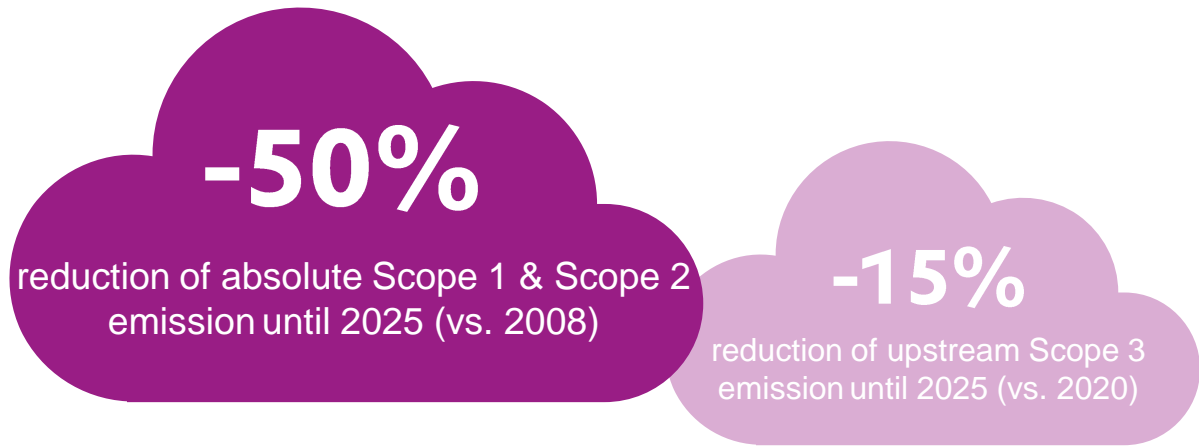
Challenged (C--)

### Next Generation Solutions

- >30% of Evonik's sales deliver material or strong material benefits in terms of sustainability
- Products address customers desire for sustainable solutions
- Next Generation Solutions include ...
  - established products like green tires, oil additives or water-borne coatings additives
  - innovations like active food packaging or thermal insulation

# Backup: Environmental Targets

## Ambitious greenhouse gas emission reduction targets



1. in thousand metric tons CO<sub>2</sub>eq

- Strong commitment to **"Paris Agreement on Climate Change"** reflected in implementation and execution on environmental targets
- **"Sustainability Strategy 2020+"** targets reduction of -50% of Scope 1 and Scope 2 emissions by 2025 (compared to base year 2008)
- Global **CO<sub>2</sub> pricing** used as an additional planning parameter for investment decisions

# Evonik

# Leading Beyond Chemistry

Strategy Update 2020

Financial perspective

May 7, 2020  
Ute Wolf, CFO

# We delivered on what we promised...

...for the third consecutive year

## 2017<sup>1</sup>

### Adj. EBITDA

„between €2.2 and €2.4 bn“

**2017: €2,357 m**



### Free Cashflow

„clearly positive“

**2017: €511 m**



## 2018<sup>1</sup>

### Adj. EBITDA

„between €2.4 and €2.6 bn“

**2018: €2,601 m**  
(incl. ~ €450 m MMA)



### Free Cashflow

“slight increase“

**2018: €672 m**  
(incl. ~ €145 m MMA)



## 2019<sup>2</sup>

### Adj. EBITDA

„at least stable“  
(2018: €2,150 m excl. MMA)

**2019: €2,153 m**



### Free Cashflow

“significantly higher“

**2019: €717 m<sup>3</sup>**



1: Including MMA business | 2: Continuing operations excl. MMA business | 3: FCF before extraordinary carve-out taxes of €245 m (related to MMA divestment)

# Where do we come from?

## Financial targets set in 2017

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Mid-term Financial Targets	Current status
Above-average volume growth GDP+	Volume growth of <b>~3-4%</b> in our growth divisions
Structurally lift EBITDA margin into sustainably higher range of 18-20%	Margin improvement of <b>+90 bps</b> despite difficult macro, yet still below target range (2019: 16.4%)
FCF significantly above dividend level	Clear improvement in FCF with <b>€717 m<sup>1</sup></b> in 2019
ROCE above Cost of Capital	ROCE <b>still below Cost of Capital</b> (2019: 8.6%)
Reliable and sustainably growing dividend	Attractive stable dividend of <b>€1.15</b>
Solid investment grade rating	Solid investment grade ratings <b>BBB+/Baa1</b>

1: FCF before extraordinary carve-out taxes of €245 m (related to MMA divestment)



# Top-line growth

Targeting above-average volume growth in growth divisions

**Target** Above-average volume growth in growth divisions **>3%**

Ø Volume growth  
(2015-2018)

Volume growth  
going forward



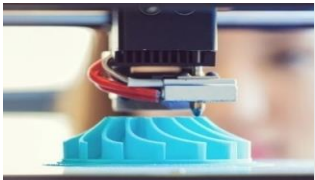
Specialty Additives

~3%



Nutrition &  
Care

~4%



Smart  
Materials

~3%



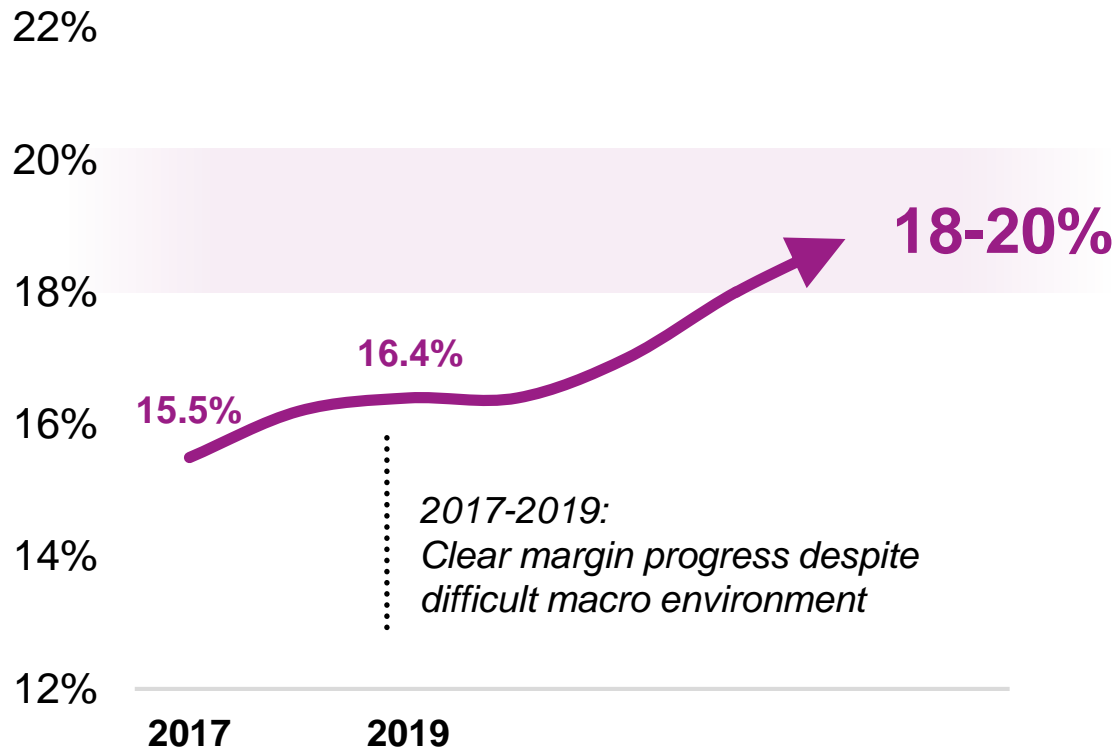
**>3%**

in growth divisions  
(over the cycle)

# EBITDA margin target range of 18-20%

## Three strategic focus areas driving structural margin improvement

### EBITDA margin in % (Group level excl. MMA)



1: Organic growth, excl. large M&A activities

### Main drivers going forward



- Organic growth projects
- Ongoing shift of product portfolio towards specialty

↑  
>100 bp<sup>1</sup>



- Cost savings from efficiency measures in Administration and Operations

↑  
~50bp

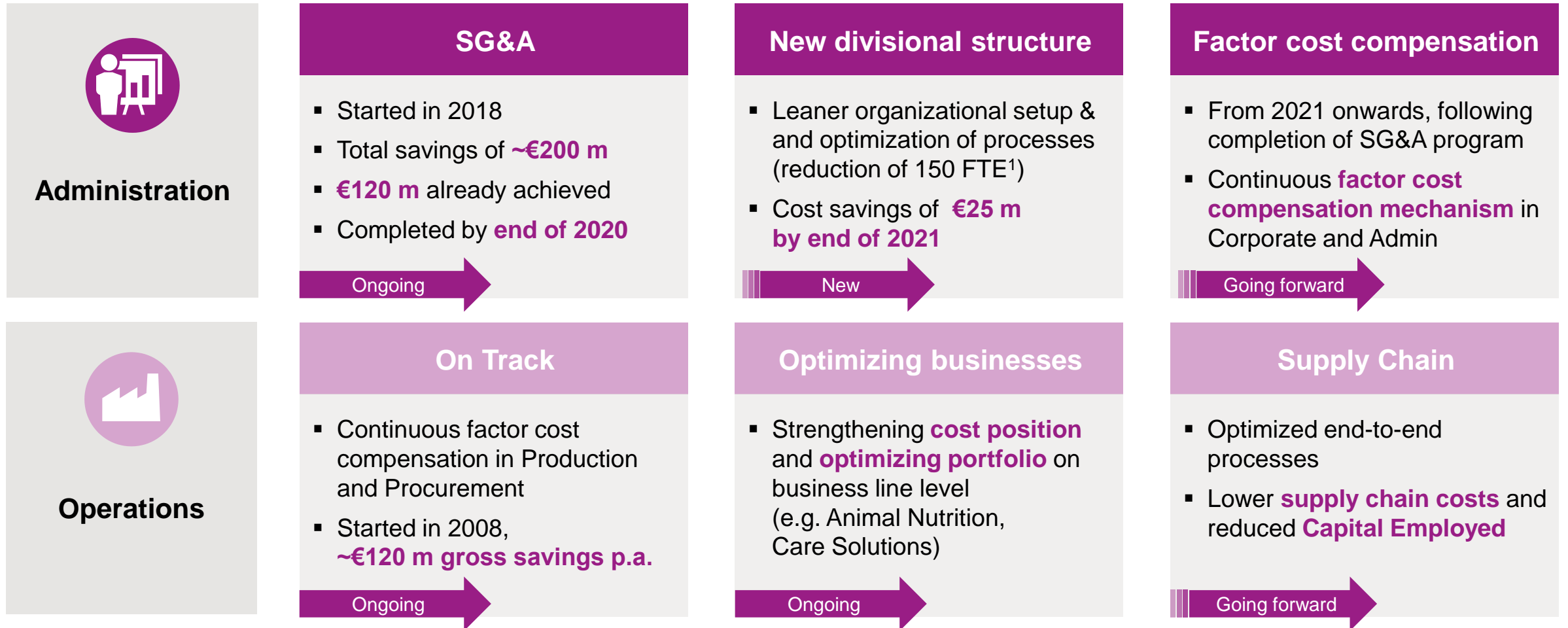


- €1 bn additional sales from new products with above-average margin

↑  
~50bp

# Self-help measures supporting margin target

## Targeting cost excellence in Administration and Operations



1: mainly in cross-segment- and administrative functions in the operating segments

# FCF Conversion

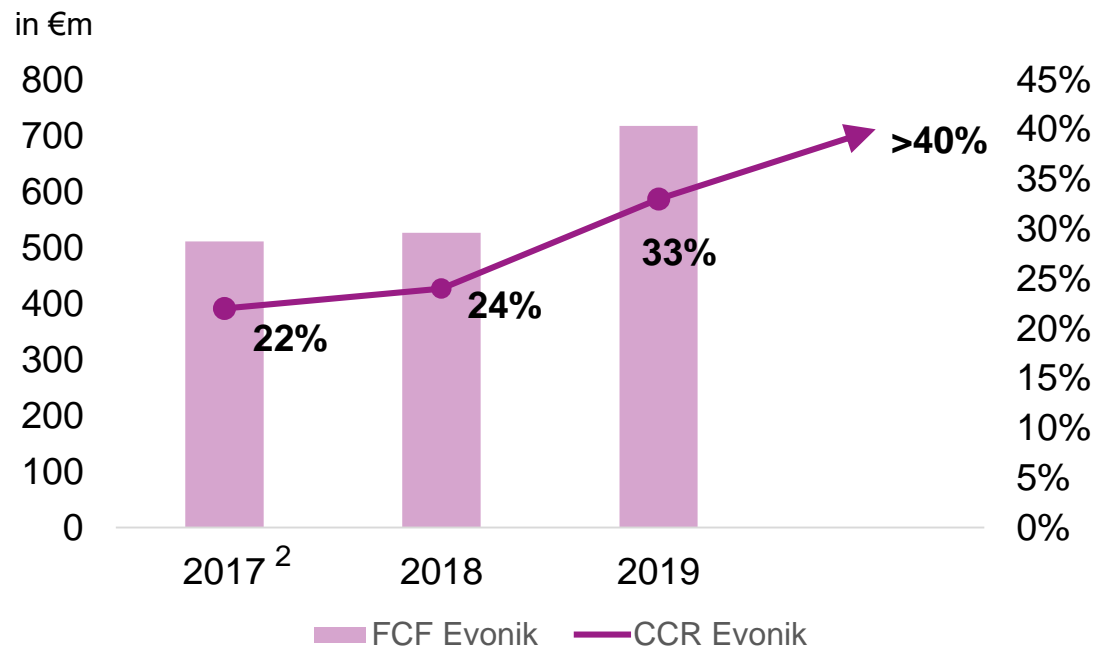
Strong track record established – further improvement ahead

Target

Cash Conversion Ratio<sup>1</sup> of

>40%

## Strong improvement of FCF and Cash Conversion<sup>1</sup>



1: Cash Conversion ratio as FCF/Adj. EBITDA | 2: Including Methacrylates business

## FCF levers going forward

- Ongoing **strict NWC management**; current low level to be secured going forward
- Maintain **capex** level of **€850 m** going forward
- **Growth projects** contributing to high cash conversion e.g.
  - Methionine plant (ME6)
  - PA12 expansion
- Fade-out of cash-outs from **efficiency measures**
- Pensions with stable cash-outs on lowered level (**CTA**)
- Bolt-on acquisitions with **high cash conversion** (e.g. PeroxyChem >60%)

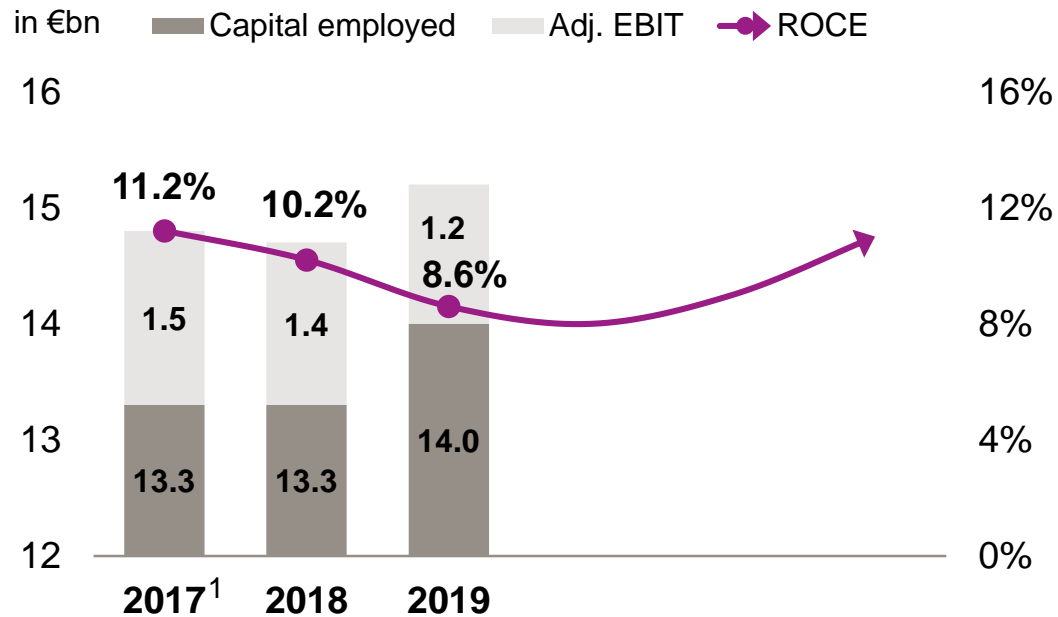
# ROCE

## Targeting ROCE well above Cost of Capital

Target

ROCE well above Cost of Capital

~11%



Increase in **Capital Employed** mainly driven by **IFRS 16**: capitalization of leases (~€0.6 bn with Q1 2020<sup>3</sup>)

Larger **growth projects** (like ME6, Precipitated silica USA, PA12):

- ~€1 bn capitalized on balance sheet
- **Full level of fixed costs** already since start-up

Higher EBIT contribution

- Increasing **utilization**
- Growing **market penetration**
- Improving **process efficiency**

**Supply chain optimization:**

- Optimized processes, lower Capital Employed

WACC<sup>2</sup> of

9%

Structural improvement of ROCE to

~11%

1: Including Methacrylates business | 2: WACC reduced to 9% due to lower cost of capital and lower beta factor | 3: Annual averages

# Capital Allocation

## Priorities for capital deployment

### Our capital allocation priorities



#### Efficient capex allocation

- Strict **capital allocation criteria**
- Optimized capex spending on **continuously lower level**
- Investment projects **contributing to financial targets**



#### Attractive dividend

- Shareholder return mainly via **attractive dividend**
- **Stable to rising** dividend going forward



#### Targeted M&A

- Strong **strategic fit** with existing portfolio
- Contributing to **defined financial targets**
- **Strict return criteria**
- High level of **synergies**



#### Healthy balance sheet level

- Maintaining a **solid investment grade rating**
- Solid balance sheet leaves **sufficient room** for **development of the group**

Increasing shareholder value

# Financial targets going forward

## Mid-term Financial Targets set in 2017

Above-average volume growth (GDP+)

Structurally lift EBITDA margin into sustainably higher range of **18-20%**

FCF significantly above dividend level

ROCE above Cost of Capital

Reliable and sustainably growing dividend

Solid investment grade rating

## Updated mid-term Financial Targets

**Above-average** volume growth <sup>1)</sup>

**>3%**



**Cash Conversion** ratio of <sup>2)</sup>

**>40%**

**ROCE well above Cost of Capital**

**~11%**



1: In growth divisions | 2: Cash Conversion ratio defined as FCF/Adj. EBITDA






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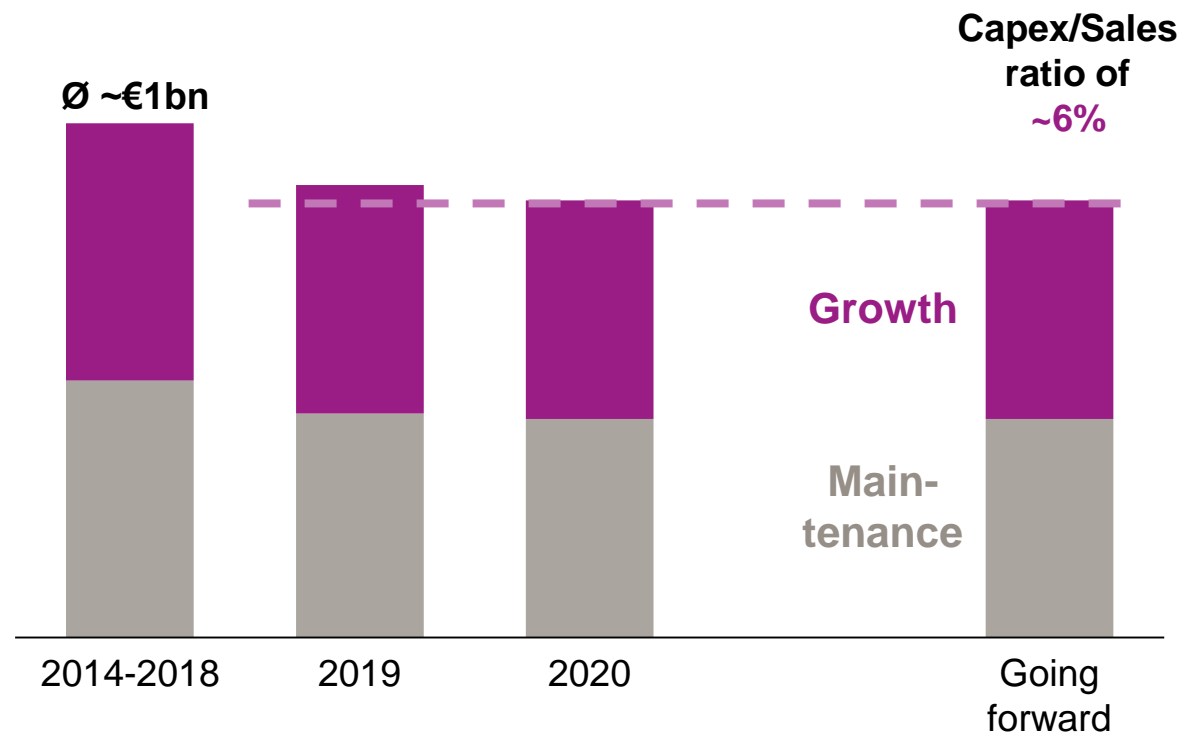
# Financial targets for growth divisions going forward

	Specialty Additives	Nutrition & Care	Smart Materials
Financial target			
Volume growth	<b>&gt;3%</b> in all growth divisions (over the cycle)		
EBITDA margin level	<b>Maintain</b> very attractive margin level (2019: 26%)	Getting <b>back into target range</b> (2019: 16%)	<b>Secure</b> margin level <b>at least</b> in range of 18 - 20% (2019: 19%)
Capex/Sales ratio	~4%	~5%	~6%

# Spotlight on Capex





Optimized capex spending on a continuously lower level of €850 m

Continuous capex level of ~€850 m



Capex = Cash outflow for investment in intangible assets, pp&e

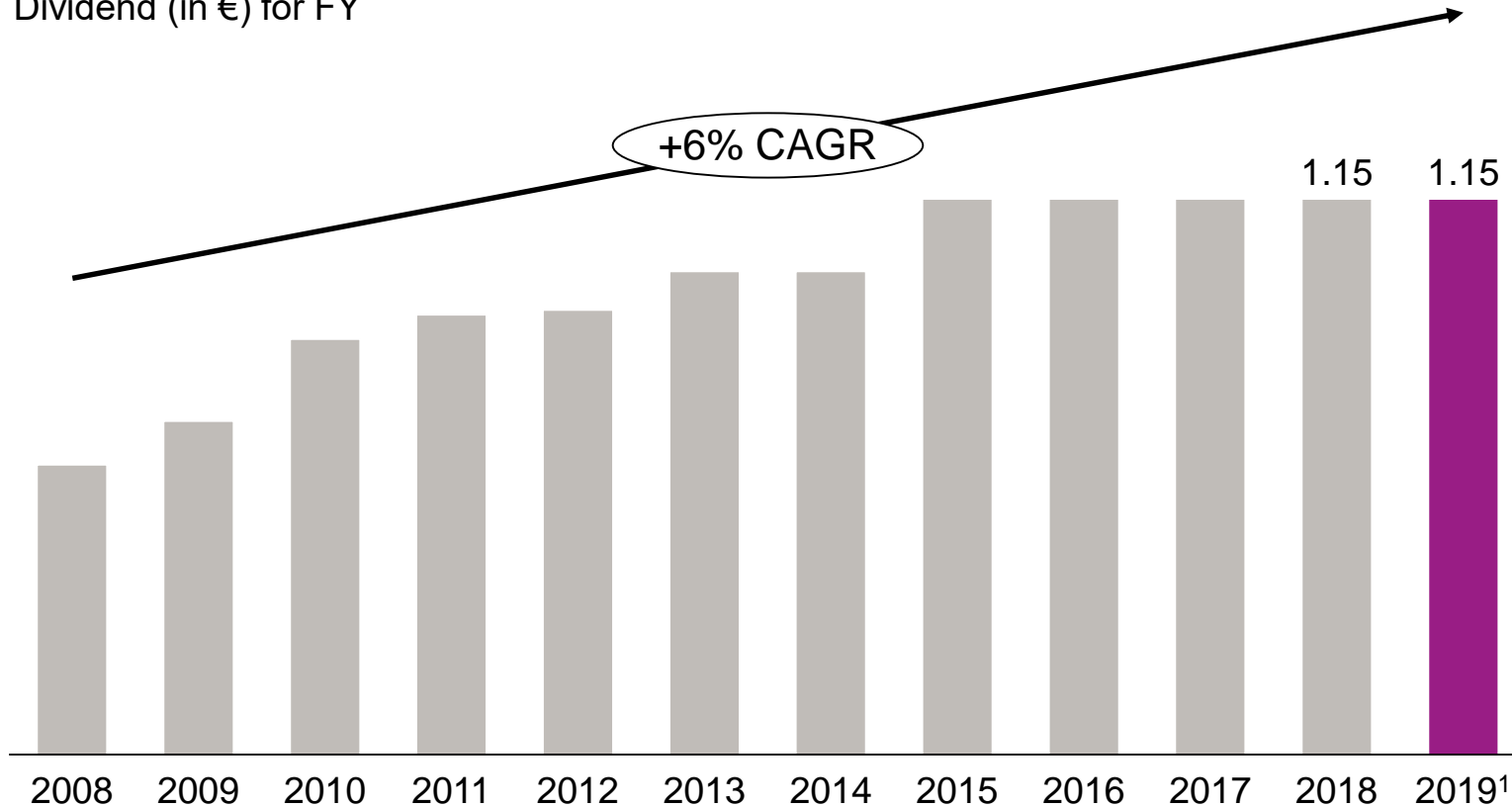
Optimized capex spending going forward

-  **Strict allocation criteria**, especially for maintenance capex
-  **Harmonization of maintenance projects** to global standards
-  **Asset Lifecycle Management** for each business with a 10-year time horizon
-  **Site Footprint Masterplan**: Definition and capex allocation according to clear capex roles for individual sites

# Spotlight on shareholder returns

## Reliable and attractive dividend policy

Dividend (in €) for FY



1: Dividend proposal

- Sustainable dividend growth over the last years: 6% CAGR between 2008 and 2019
- **Attractive dividend yield** (~5% mid-2020)
- Reliable dividend policy targeting:
  - **Dividend continuity**
  - **Adj. EPS and FCF growth** with potential for sustainable **dividend growth** going forward

# Evonik

# Leading Beyond Chemistry

Strategy Update 2020

New divisional structure & Innovation

May 7, 2020

# Rationale for new management and reporting structure

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**Clearly defined strategic roles**

**3 “Growth” divisions with >3% volume growth target  
Performance Materials as “Efficiency” division**



**More homogeneous divisions**

**Common themes & trends in growth divisions**



**Higher transparency**

**4 divisions; sales split for sub-divisions**



**More efficient internal management**

**Clear-cut technology platforms**



**Leaner organization**

**Reduction of 150 FTE, €25 m p.a. savings by end of 2021<sup>1</sup>**

1: mainly in cross-segment- and administrative functions in the operating segments

# New divisional structure

## Growth divisions with common themes and attractive growth drivers

### Specialty Additives



### Nutrition & Care



### Smart Materials



### Performance Materials



### Portrait

Broad spectrum of **additives solutions** for maximum performance which **make the key difference** in industrial applications for coatings, polyurethane foam & lubricants

**Sustainable solutions** for basic human needs **in resilient end markets** like pharma, personal care & animal nutrition

Innovative materials for **resource-saving solutions** and **substitution of conventional materials** in environmental, mobility and construction end markets

**Efficient platforms** for production of high-volume intermediates for mobility, plastics & rubber as well as superabsorbent polymers for consumer applications

### Main Growth Drivers

- More sophisticated additive effects
- Environmentally-friendly additives
- Social trends in health, well-being and nutrition
- Natural-based ingredients
- Biotechnology and fermentation
- Saving resources
- Use of lightweight materials
- Stricter regulation and safety standards
- Focus on efficiency in production & procurement

# New divisional structure

## Technology platforms and end market exposure

Specialty Additives	Nutrition & Care	Smart Materials	Performance Materials
<b>Technology platforms</b>			
<ul style="list-style-type: none"> <li>▪ Silicone chemistry</li> <li>▪ Isophorone platform</li> <li>▪ Amines platform</li> </ul>	<ul style="list-style-type: none"> <li>▪ Biotechnology / Fermentation</li> <li>▪ Methionine platform</li> <li>▪ Oleo chemistry</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inorganic particle design</li> <li>▪ Specialty polymers</li> <li>▪ Active oxygens</li> <li>▪ Process catalysts</li> </ul>	<ul style="list-style-type: none"> <li>▪ C4 processing and derivatizing</li> <li>▪ Polymer know-how</li> </ul>
<b>Key products &amp; global market positions</b>			
<ul style="list-style-type: none"> <li>▪ #1-2 in Coating Additives</li> <li>▪ #1 in PU Additives</li> <li>▪ #1 in Viscosity Modifiers (for lubricants)</li> </ul>	<ul style="list-style-type: none"> <li>▪ #1 in Methionine</li> <li>▪ Strong position in Active Cosmetic Ingredients</li> <li>▪ #2 in Drug Delivery Systems</li> </ul>	<ul style="list-style-type: none"> <li>▪ #1 in Silica</li> <li>▪ #2 in H<sub>2</sub>O<sub>2</sub></li> <li>▪ Leading in Catalysts<sup>1</sup></li> <li>▪ #1 in PA12</li> </ul>	<ul style="list-style-type: none"> <li>▪ C4 Derivatives</li> <li>▪ Superabsorbers</li> </ul>
<b>End market split</b>			

1: #2 in activated nickel catalysts, #3 in Oil & fat hydrogenation catalysts

# Specialty Additives – Key characteristics

Leading Specialty Additives portfolio for maximum customer value

## Key characteristics

- Leading portfolio of **additive solutions** for maximum performance which **make the key difference**
- **Minor share of cost** in customers' end products
- **Unique formulation know-how** guarantees **deep integration** into customers' innovation processes



## Growth drivers

- Trend towards **more sophisticated additive effects**
- Constantly rising demand for **environmentally-friendly solutions**
- Leverage capabilities in **silicone and amine technology platforms** into new applications



# Specialty Additives – Growth drivers

Additives solutions making the key difference in various applications

Less maintenance



*Rust doesn't stand a chance*

**Crosslinkers** for composite-reinforced bars with outstanding mechanical and chemical properties

Global corrosion cost ~**US\$2.5 tn** Prevention best practices can reduce costs by **15-35%**

Less energy



*Colder drinks for less money*

**PU foam surfactants** create performance advantages in insulating foams for appliances and buildings

Reducing the electricity bill **with increased sustainability**

More protection



*The paint stays put*

**Additives for paint systems** creating a lasting barrier against chemical cleaning agents

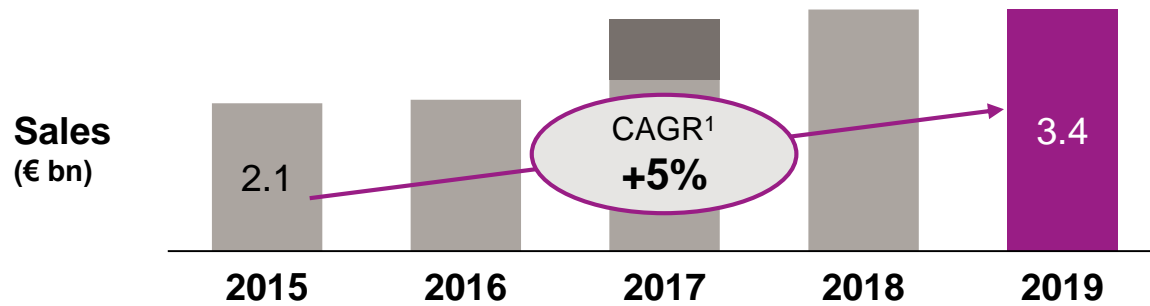
Protecting rail car surfaces and helping to **avoid €30,000 of repainting costs**

# Specialty Additives – Financials

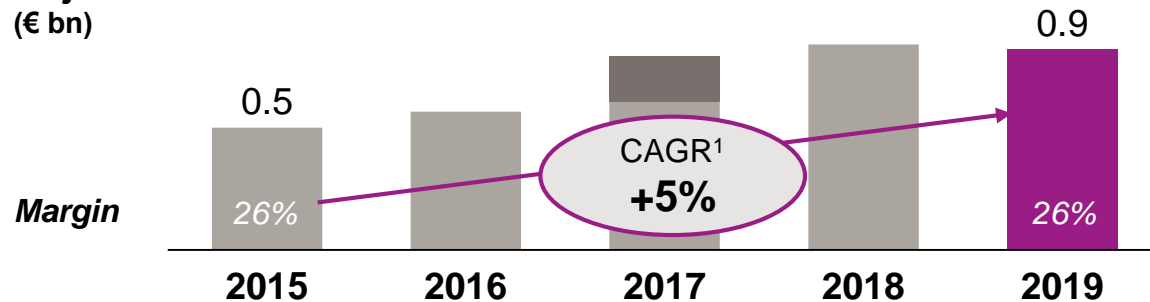
Continue strong growth track record on very attractive margin level

## Specialty Additives

■ APD acquisition



Adj. EBITDA (€ bn)



1: Organic Sales / EBITDA CAGR = adjusted for APD acquisition

- Steady **earnings growth** and **outstanding 26% margin level**
- Strong track record of **pricing power** and good volume development
- Attractive **ROCE of ~18% in 2019** (including APD goodwill)

- **Ambitions going forward:**
  - Continue **strong growth track record**
  - Maintain **very attractive margin level**

# Specialty Additives – Strategic agenda

Strategic agenda to drive growth and expand market leadership



## Portfolio development

- **Expand leading additives portfolio** towards environmentally-friendly systems and formulations
- Exploit new applications via **innovation** and **customer application development**



## Investments

- Continue successful **capex-light** approach
- Ongoing **expansions** and **debottleneckings**

Capex/sales:  
~4%<sup>1</sup>



## M&A

- Additives portfolio offers bolt-on **M&A opportunities** in complementary products and technologies

1: Target

# Nutrition & Care – Key characteristics

## Sustainable solutions in defensive end markets

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### Key characteristics

- **Resilient business models** in defensive end markets
- Unique combination of **technology infrastructure and customer-centric formulation know-how**
- **Close partnerships and R&D collaborations** with leading personal care and pharma players



### Growth drivers

- **Social trends** for sustainable nutrition and natural-based cosmetics ingredients
- **Leading biotech / fermentation know-how** offers new growth arenas

# Nutrition & Care – Growth drivers

## Leading position in the growing market for fermentation-based materials

### Strong foundation in microbial fermentation...

- **> 30 years** industry expertise
- **> 25 fermentation-based products commercialized**
- Wide range of bacteria, yeast and algae-based organisms used in strain development and fermentation
- Global network of sites across Europe, USA and Asia
  - **> 7,000m<sup>3</sup> fermentation capacity** - One of the industry's largest players
- Internal and CMO projects in high-growth areas:
  - e.g. **protein fermentation** of food ingredients and biofabricated materials (e.g. leather)

### ...with an outstanding project pipeline



- Algae fermentation for omega-3 EPA / DHA in salmon aquaculture
- Production facility in Nebraska, USA
- Latest innovation: recombinant collagen platform
- Fermentation-based & animal-free
- ~€1.5 bn accessible collagen market for pharma & healthcare
- Contract manufacturing and industrialization projects with large & growing list of innovators
- Protein fermentation, pharma

# Nutrition & Care – Growth drivers

## Strong setup for future growth in Care Solutions

Expansion of technology portfolio  
in natural-based ingredients...

...delivering outstanding customer benefits

2016



- Botanical Extracts  
*"Consumer request for sustainable sourced botanicals"*

Transformation into a  
**sustainable specialty products provider**  
to provide outstanding formulation concepts

2017



- Alternative preservatives & Formulation service  
*"Consumers demand alternative solutions to parabens – which are by far more complex to formulate"*

Peptides &  
Amino acids



Plant extracts &  
Phytochemicals

Biopolymers



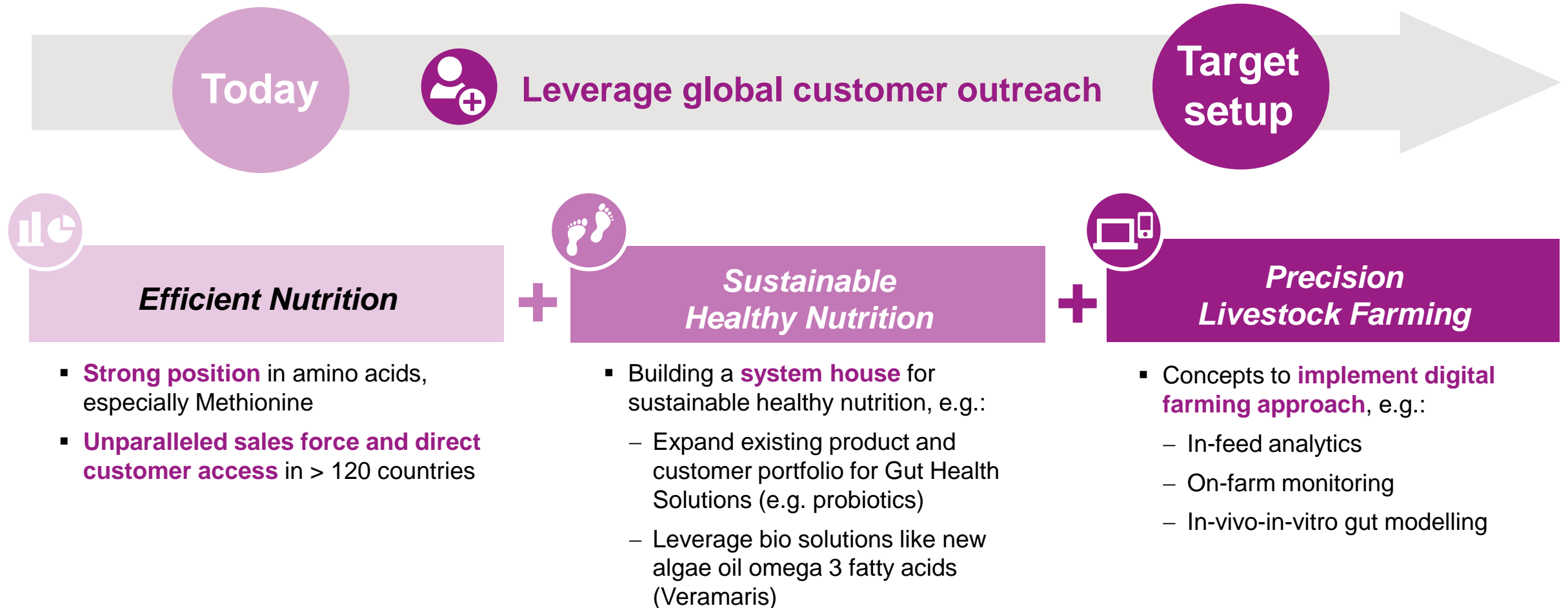
2020



- Natural products  
*"Plant-derived active ingredients and intermediates"*

# Animal Nutrition transformation

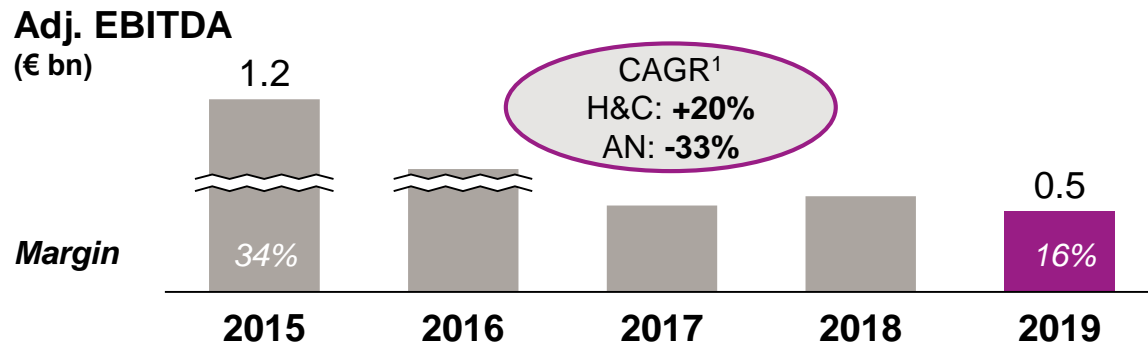
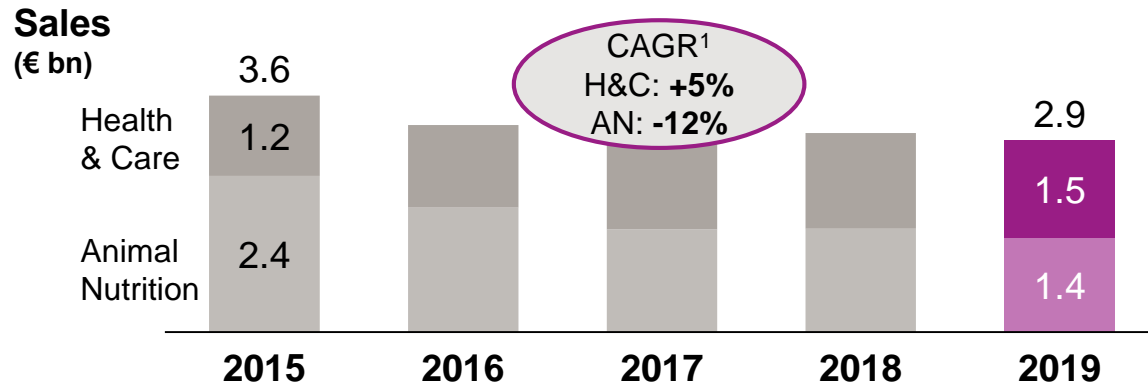
From Amino Acid producer into system house for sustainable nutrition



# Nutrition & Care – Financials

Strong H&C performance; Animal Nutrition with healthy & steady volume growth

## Nutrition & Care



1: Organic Sales / EBITDA CAGR = adjusted for APD acquisition

- **Strong track record in Health & Care** now becoming more visible
- **Healthy & steady market growth in Methionine** (5-6% p.a.) overcompensated by price decline
- **ROCE of ~8% in 2019**
- **Ambitions going forward:**
  - Bring back margin level into **target range of 18 - 20%**
    - Foster specialty growth in **Health & Care**
    - Execute differentiated growth & efficiency strategy in **Animal Nutrition**



# Nutrition & Care – Strategic agenda

Foster growth trend for sustainable nutrition and natural-based ingredients



## Portfolio development

- Expand portfolio of **natural-based ingredients**
- **Leverage strong biotechnology platform** across all businesses



## Investments

- **Well-invested asset base, limited capex needs** going forward
- Focus on **debottleneckings** and **customer-financed projects**

Capex/sales:  
~5%<sup>1</sup>



## M&A

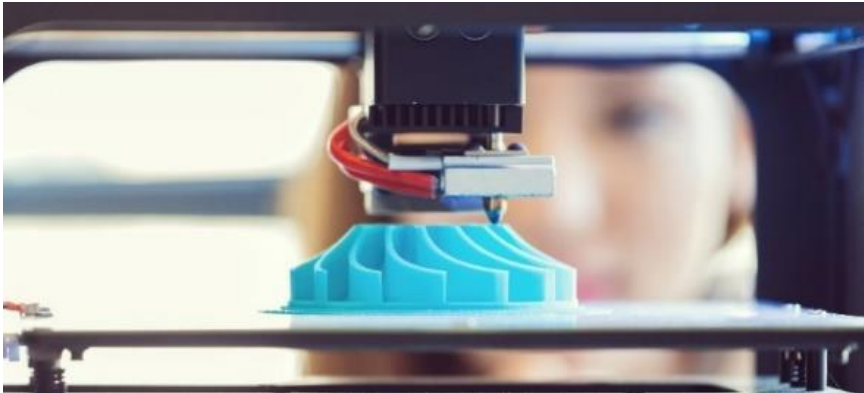
- **M&A opportunities** to strengthen Animal Nutrition in growth areas outside amino acids
- Attractive niches for adjacent **technology acquisitions** in Health & Care

# Smart Materials – Key characteristics

## Resource-efficient and environmentally-friendly solutions

### Key characteristics

- **Environmentally-friendly solutions**
- Broad expertise and portfolio for **complex customer requirements**
- **Global market leading positions** with high economies of scale



### Growth drivers

- **Saving resources**
- Increasing use of **lightweight materials**
- **Stricter regulation** and **safety standards**

# Smart Materials – Growth drivers

## Broad-based specialty silica portfolio with >€1 bn of sales

### Facts

#1

supplier for fumed and precipitated silica as well as metal oxides

32

industries served by industry experts

>100

products to solve customer challenges

~260

R&D and Applied Technology experts

26

production sites with global coverage

### Broad specialty silica portfolio



Precipitated Silica



Fumed Silica



Metal Oxides

- **Portfolio** with exposure to various end-markets
- Growth focus on **customer-oriented solutions** in niche markets
- Strong **innovation capabilities** – 20 new products since 2017

Specialty portfolio constantly supplemented by product innovations like...



... silica for eco-friendly cosmetic

>3%  
p.a.

- SPHERILEX®
- Versatile and eco-friendly alternative to microplastics in leave-on and color cosmetic applications



... Separators for Lithium-Ion-Batteries

>5%  
p.a.

- AEROXIDE®
- High quality pure silica and metal oxides separators increase safety, lifetime and performance of batteries for EVs

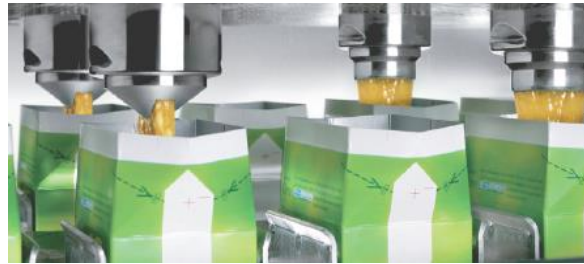
1: Portfolio includes precipitated, fumed and metal oxides applications

# Smart Materials – Growth drivers

## Shifting consumer & producer preferences in food & beverage processing

### Customer challenge in aseptic packaging

- Consumer demand for **more nutritional natural drinks** (more conducive environment for microbial growth)

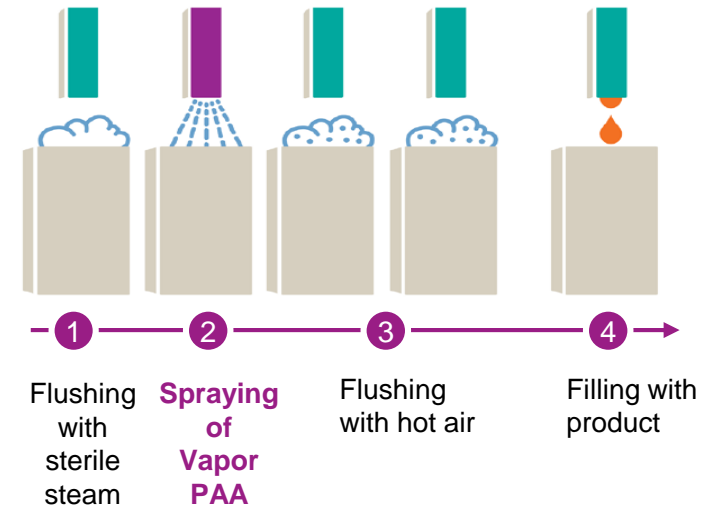


- Producer demand for **more cost effective, high speed PET bottle filling systems**
- More innovative bottle designs**
- Sustainability trend to **thinner packaging**

### Technical challenges in existing sterilants and applications

### Evonik solution: Spraying Technology “Vapor PAA”

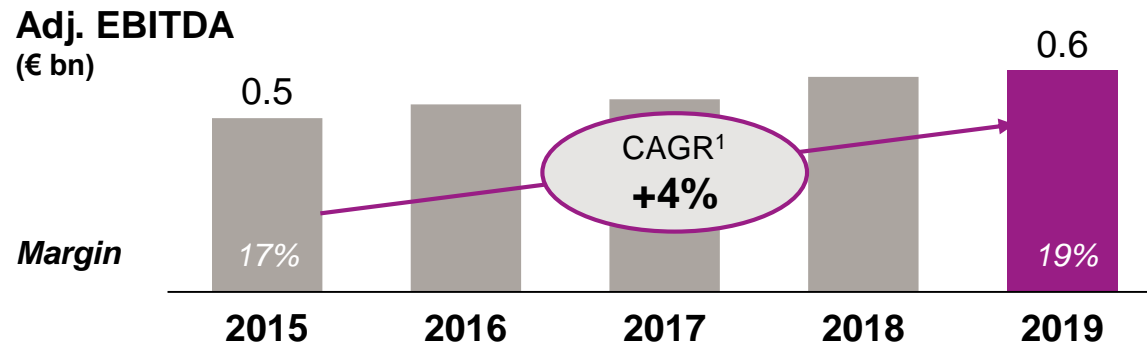
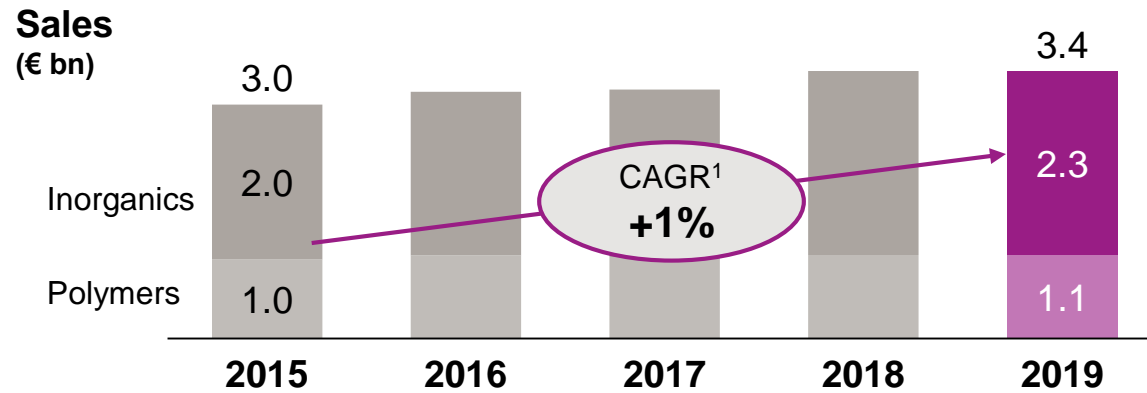
- New Vapor PAA technology** (as alternative to liquid Peracetic Acid or Vapor  $H_2O_2$ ) for spray sterilization
- Greatly reduces water and energy consumption
- Withstands lower temperatures, which increases bottle options



# Smart Materials – Financials

## Solid earnings growth and margin progression

### Smart Materials



1: Organic Sales / EBITDA CAGR = adjusted for Huber acquisition

- **Steady earnings & margin expansion**
  - **Strong pricing power** & shift towards lower-volume specialties
  - **ROCE of ~16% in 2019** (including Huber goodwill)
- 
- **Ambitions going forward:**
    - **Secure margin level** at least in range of 18 - 20%
    - Continue strong **track record in pricing power;** **capacity expansions** driving growth going forward

# Smart Materials – Strategic agenda

## Expand technology and cost leadership

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### Portfolio development

- Expand **specialty applications**, e.g. in Silica & H<sub>2</sub>O<sub>2</sub>
- Capture **opportunities and new markets** for non-fossil raw materials and products



### Investments

- Expand **technology and cost leadership**
- **Ramp-up** of new PA12 and Silica capacities to meet strong market growth

Capex/sales:  
~6%<sup>1</sup>



### M&A

- **Leverage** Huber Silica & PeroxyChem acquisitions
- **Selective M&A** to complement already strong positioning of current portfolio

# Performance Materials – Key characteristics

## Leading platforms and processes

### Key characteristics

- **Leading integrated C4-technology platform** with excellent exploitation of raw materials
- Reliable partner for our customers in **Superabsorbent polymers**
- Global supplier of **Alkoxides** as essential catalyst for the renewable fuel industry
- Highly **efficient processes and integrated platforms** offer reliable cash contribution



### Efficiency examples



**E-Business solutions**  
'C4Connect®' for order and availability management as well as personalized offers



Constant **process innovation and optimization** (e.g. fluid catalytic cracking to broaden raw material base)



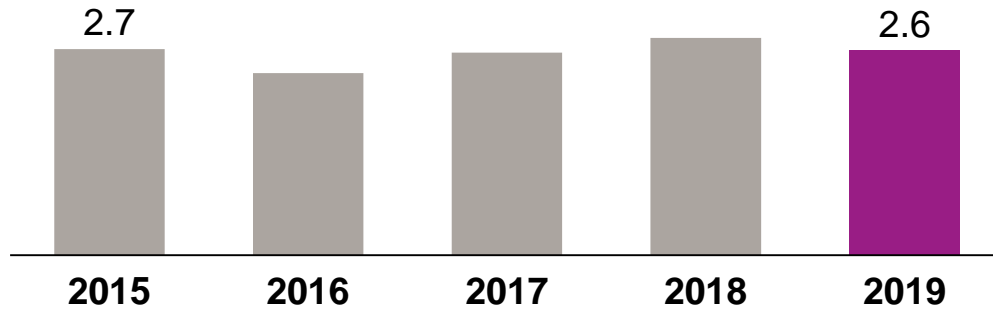
**Consistent digitalization of the whole production Verbund** leads to a permanent improvement of manufacturing and business processes

# Performance Materials – Financials

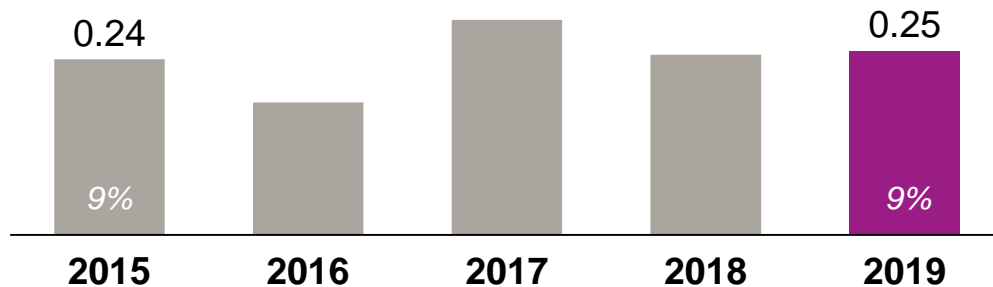
Focus on cost efficiency and cash generation

## Performance Materials

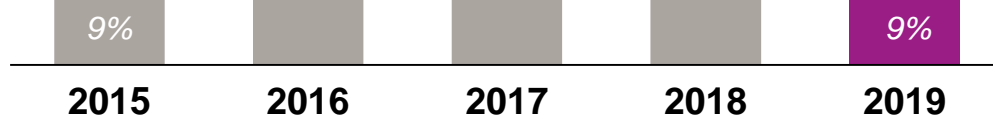
Sales  
(€ bn)



Adj. EBITDA  
(€ bn)



Margin



- Focus on **cost efficiency** and **cash generation**
- Constant **process innovation and optimization**, also by using digitalization potentials
- **Higher exploitation** of raw material streams in C4 chain



# Innovation strategy

## Targeted approach for market-leading innovations

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### Targeted approach

- **Central steering** of innovation activities
- Focus on **innovation growth fields** with clearly assigned responsibilities
- Bundling of **cross-business competencies** in dedicated R&D hubs



### Sustainability focus

- Sustainability as **key driver** for future innovation initiatives
- Sustainability criteria and KPI's **integrated** into innovation process
- Continuous **sustainability analysis** of introduced products



### Process innovations

- Higher focus on **process innovations** to drive operational excellence
- Integrate process innovations into continuous improvement process
- **Lower capex and opex levels** for capacity expansions

# Innovation pipeline

A well-filled R&D pipeline with different target horizons

Short-term



## Additive Manufacturing

- Evonik's 3D printing portfolio as beneficiary of trend from "prototyping only" into real series production

Mid-term



## Biosurfactants

- Based on Evonik's leading biotechnology know-how
- 100% renewable natural resource & biodegradable

Long-term



## Precision Livestock Farming

- Digital solutions to optimize every aspect of livestock production – in one holistic approach

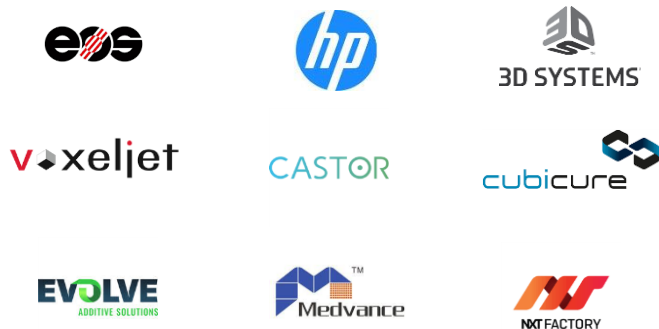


# Additive Manufacturing

A strong existing base offering further growth opportunities

## Strong base established

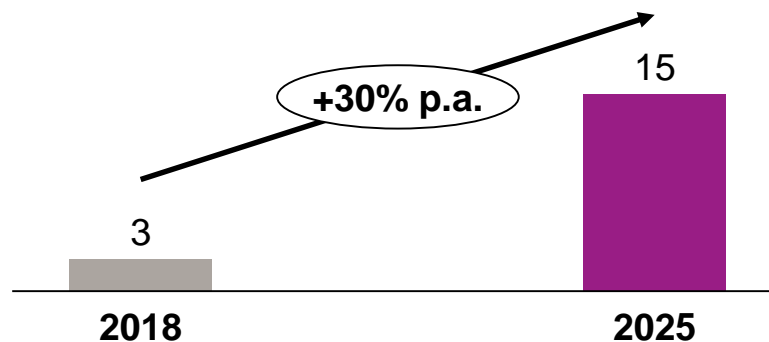
- Evonik as **market leader** in PA12 powder-based 3D printing materials
- **Several platforms available** to serve all major powder-based printing technologies
- **Close partnerships** with major printing players and innovators:



## Expand strong position to new applications and new materials

- Establish position in emerging technologies like **high performance photo-resins**
- **Expand business in medical applications** with implantable PEEK and bio-resorbable RESOMER
- **Capture growth potential** of shift from “prototyping only” into real series production:

Non-metal 3D-printing materials market (in €bn)



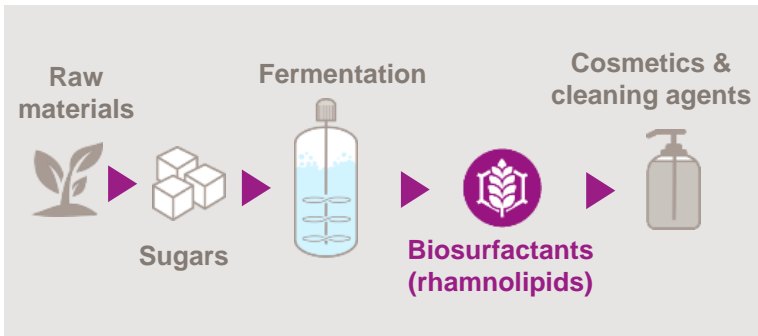
**Evonik as leading ready-to-use materials supplier** for Additive Manufacturing

# Biosurfactants

## Large-scale production of world's first "green" biosurfactant (rhamnolipids)

2016

### Development phase



- **Renewable resource & biodegradable**
- **Plant-based sugars** as only carbon source – no oils used
- **Unique product properties**, especially cleansing & foaming

2018

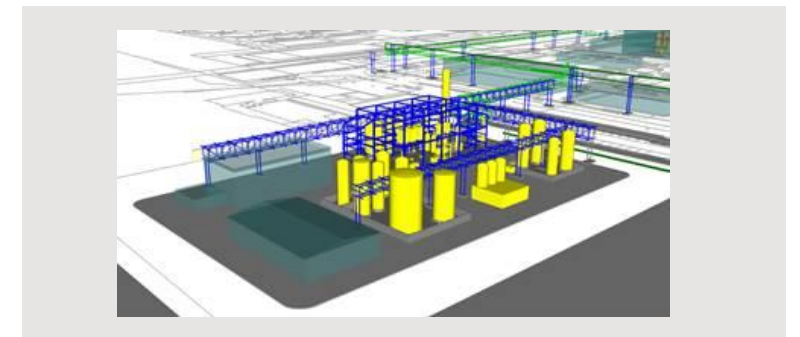
### Test phase & first products



- Personal Care ingredient "RHEANCE® One" **awarded at "in-cosmetics"** 2018
- **Test launch** in selected personal care products
- **Unilever** with successful market launch of a dishwashing product in 2019

2020

### Industry-scale investment



- Commercializing **Evonik's leading biotechnology capabilities**
- Evonik will be the **first company to produce biosurfactants on industrial scale**
- Basic engineering at our **biotech hub in Slovakia**

# Precision Livestock Farming

Digital solutions to optimize every stage of livestock production



Digital in-flock monitoring of animals

Data

Data

Data



Provide real-time recommendations for

## Optimized farming

- Growth monitoring and prediction
- Efficient use of resources
- Limited Nitrogen emissions

## Better nutrition

- Analyze exact feed quality
- Optimum balance of nutrient ingredients

## Improved health

- Implement preventive measures
- Avoid disease outbreak
- Reduce antibiotics use

First offerings available

**Porphyrio**<sup>®</sup>

An Evonik product.



Big data technology & biostatistics combined with poultry science and poultry Production



PRODUCTION PLANNING



INTUITIVE DASHBOARD



ACCURATE PREDICTIONS



INTERNAL BENCHMARKING



EARLY WARNING SYSTEM



HEALTH MANAGEMENT





**EVONIK**

**Leading Beyond Chemistry**

# New divisional structure

## Divisions, Sub-Divisions, Key products & Raw materials

