



# Well on track

## Roadshow Presentation

# Global leader in high-tech material solutions

## Covestro key investment highlights



- 1 Favorable industry environment**  
with long-term, above GDP growth prospects in a diverse range of end markets
- 2 Portfolio with broad-based geographical and industry footprint**  
with increasing share of differentiated, resilient business
- 3 Leading and defendable global industry positions**  
as innovation and cost leader
- 4 Positioned to deliver future volume growth in line with industries**  
through well-invested asset base and smart capex approach
- 5 Attractive cash flow growth outlook**  
with use of cash focused on value creation

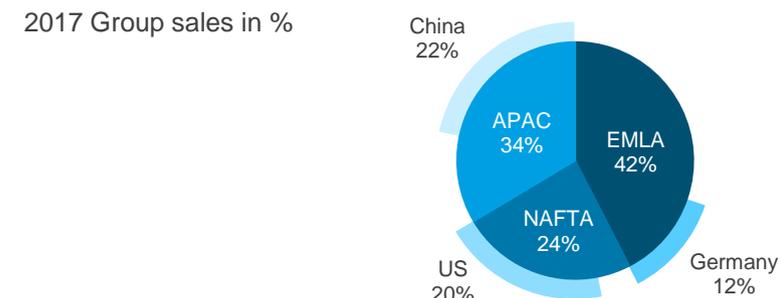
# Covestro at a glance



## Inventor and leader in high-tech material solutions

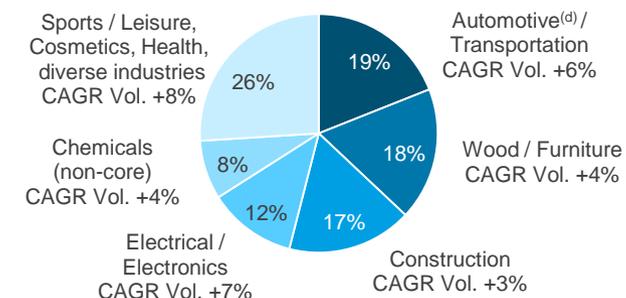
- Leading global polymer producer in polyurethanes and its derivatives as well as polycarbonates
- Proven track record of process and product innovation, customer proximity as well as market-driven solutions
- State-of-the-art asset base with leading process technology and total production capacity of approx. 5mt<sup>(a)</sup> distributed across 30 production facilities around the world
- 8 main sites with world-scale production facilities located in Germany, Belgium, China, Thailand and the United States
- Backward-integration into chlorine, propylene oxide and other feedstock, aimed at sourcing critical raw materials internally with no or limited merchant market sales
- Headquartered in Leverkusen, Germany, with approx. 16,000 employees<sup>(b)</sup> globally

### Sales split by regions<sup>(c)</sup>



### Sales split by end-market

2017 Group sales in % / Core volume growth, CAGR 2015-2017



#### Key financials 2017

Sales  
€14.1bn

Core Vol. CAGR  
2015-2017: +5.5%

EBITDA  
€3.4bn

FOCF  
€1.8bn

ROCE  
33.4%

# Covestro business units



Three industry-leading, structurally attractive business units

| Business Units                          | Polyurethanes (PUR)   | Polycarbonates (PCS)   | Coatings, Adhesives, Specialties (CAS)   |
|---|---|--|--|
| <b>Global Position<sup>(a)</sup></b>    | <b>Global #1 (3,530kt)</b> <ul style="list-style-type: none"> <li>MDI: #3 (1,450kt)</li> <li>TDI: #1 (750kt)</li> <li>Polyether polyols: #2 (1,330kt)</li> </ul>  | <b>Global #1 (1,480kt)</b> <ul style="list-style-type: none"> <li>EMEA: #2 (540kt)</li> <li>NAFTA: #2 (230kt)</li> <li>APAC: #1 (710kt)</li> </ul>   | <b>Global #1:</b> <ul style="list-style-type: none"> <li>Aliphatic / Aromatic isocyanate derivatives</li> <li>Polyurethane dispersions</li> <li>Films (TPU #1, PC #2)</li> </ul>   |
| <b>Sales 2017<sup>(b)</sup></b>         | <b>€7.4bn or 52% of Covestro</b>  | <b>€3.7bn or 26% of Covestro</b>   | <b>€2.3bn or 16% of Covestro</b>   |
| <b>EBITDA Margin 2017<sup>(b)</sup></b> | <b>29.5%</b>  | <b>22.8%</b>   | <b>20.9%</b>   |
| <b>Key Applications</b>                 | <p><b>Rigid foam:</b></p> <ul style="list-style-type: none"> <li>Building insulation</li> <li>Cold chain</li> <li>Automotive parts</li> </ul> <p><b>Flexible foam:</b></p> <ul style="list-style-type: none"> <li>Furniture</li> <li>Bedding / mattresses</li> </ul>   | <ul style="list-style-type: none"> <li>Automotive parts</li> <li>IT and electrical equipment, electronics</li> <li>Consumer products (e.g. sports gear)</li> <li>Medical</li> <li>LED lighting and other applications</li> </ul>   | <ul style="list-style-type: none"> <li>Surface coatings</li> <li>Adhesives and sealants</li> <li>Elastomers</li> <li>Specialty films</li> <li>Thermoplastic Polyurethanes (TPU)</li> </ul>   |

# Global industry positions

Covestro is a leader across its entire portfolio



## Polyurethanes

Capacity share in 2017<sup>(a)</sup>

### MDI



**Top 5: 90%**

2022e: Top 5 share expected to remain stable at 90%

### TDI

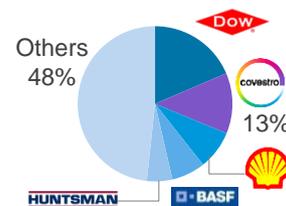
#1 in PUR



**Top 5: 76%**

2022e: Top 5 share expected to remain stable at 76%

### Polyether polyols



**Top 5: 52%**

2022e: Further consolidation expected, especially in China

## Polycarbonates

### PC

#1 in PC



**Top 5: 81%**

2022e: Top 5 expected to account for ~70%

## Coatings, Adhesives, Specialties

### Aliphatic isocyanate derivatives

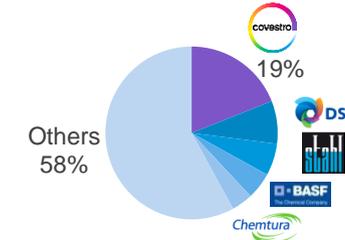
#1 in CAS



**Top 5: 90%**

2022e: Industry structure expected to remain stable

### Polyurethane dispersions



**Top 5: 42%**

2022e: Industry structure expected to remain stable

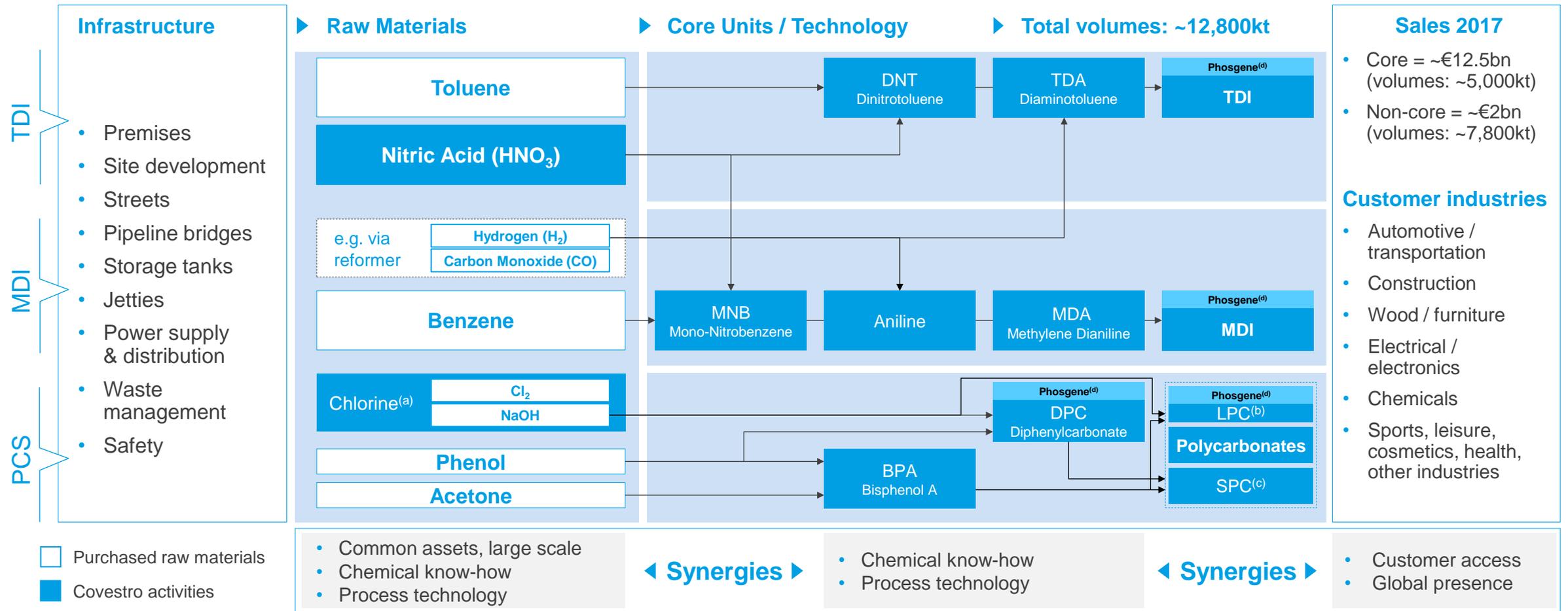
Entry requirements

- Sizable investment requirement
- Intense pressure to advance process technology
- Global asset base to enable customer proximity
- Persistent demand for product and process innovation
- Efficient feedstock integration required

- Economies of scope crucial
- Formulation and application know-how necessary
- Close customer relationships and long-term R&D collaborations
- Operation of global platform essential

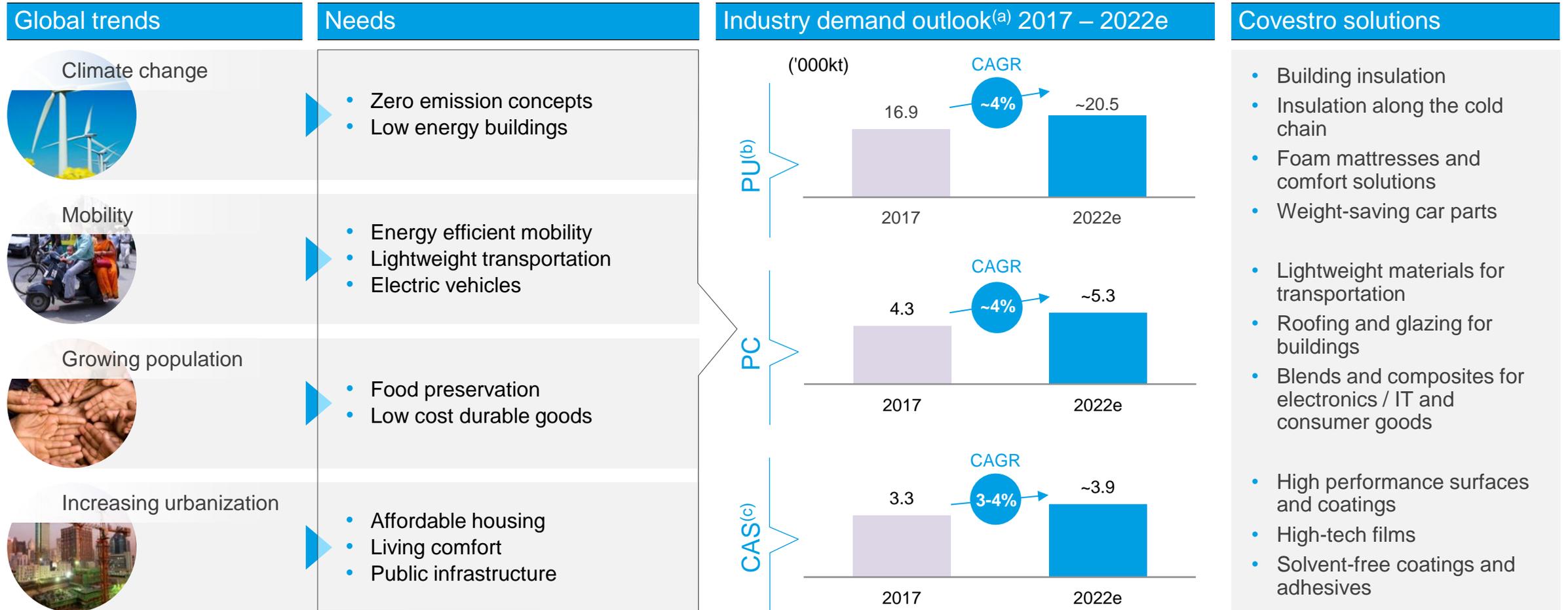
# A common chemical backbone across all segments

Significant synergies in scale, process technology and chemical know-how



# Favorable industry environment

Long-term, above GDP industry growth supported by global trends



# Product innovation is long-term driver of growth

Addressing ever-changing customer needs for new material solutions



| Need   | Overall market                            | Relevant market                                 | Covestro solutions   |
|--|---|---|--|
| More durable and economical wind power plants    | Energy consumption<br>CAGR: ~3%           | Offshore wind energy<br>CAGR: ~19%              | Novel components for wind power plants: PU resins for rotor blades, PU materials for coatings, Elastomers for sea cables |
| Energy- and cost-efficient buildings             | Construction<br>CAGR: ~2%                 | Polyurethane insulation<br>CAGR: ~5%            | Raw materials for PU foam (rigid and in spray form) enabling highly efficient insulation                                 |
| Reduction of high energy consumption of lighting | Luminaire<br>CAGR: ~3%                    | Luminaire LED<br>CAGR: ~12%                     | Polycarbonates in LED lenses, light guides, heat sinks   |
| Eco-friendly produced furniture                  | Coating industrial furniture<br>CAGR: ~3% | Water-based industrial furniture<br>CAGR: ~5%   | New bio-based hardener for water-based wood coatings   |
| Sustainable and functional fashion               | Textile coating<br>CAGR: ~6%              | Covestro relevant textile coating<br>CAGR: ~11% | Waterborne, solvent-free materials for functionalized textiles in diverse applications                                   |
| More and better cooling devices                  | Refrigerators<br>CAGR: ~3%                | Refrigeration insulation foam<br>CAGR: ~8%      | Raw materials for particularly effective insulating foams: 40% smaller pores allow up to 10% better insulation           |
| Perfect insulation for perishable products       | Containers<br>CAGR: ~4%                   | Reefer containers<br>CAGR: ~9%                  | Rigid polyurethane foam components for temperature-controlled shipments  |
| Reduced weight and increased comfort             | Global car production<br>CAGR: ~3%        | Car applications<br>CAGR: ~5%                   | Attractive alternatives to conventional materials: polymers to replace glass and metal                                   |



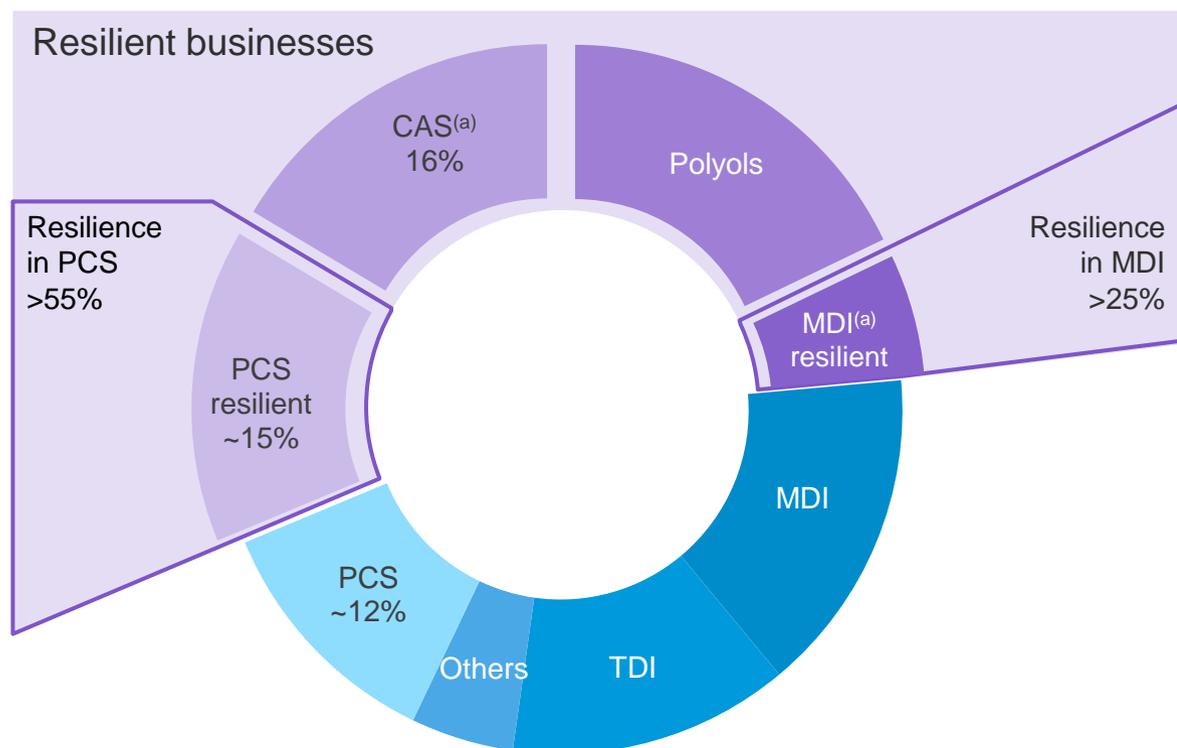
# Portfolio geared towards differentiated products

Over 50% of sales generated with resilient businesses



## Sales by segments

% of 2017 Group sales



## Highlights

- CAS viewed as resilient on both sales and earnings due to characteristics of niche coating / ingredients chemicals
- Polyols viewed as resilient on both sales and earnings as demonstrated over the last decade
- PCS business with increasing share of resilient business through product mix shift to differentiated, high-value industry applications (e.g. automotive, medical, electronics)
- In MDI, differentiation potential beyond standardized products in >25% of product portfolio
- Transfer of specialty elastomers business from MDI / PUR to CAS segment lowers resilient part of MDI by ~5pp
- TDI fly-up margins increased share of non-resilient earnings in 2017

# Margin resilience in CAS

Focus on stable high margins in CAS business with defensible competitive advantages



Global leading supplier of high performance materials to the coatings, adhesives and sealants industries



6+  
Monomers

2,300+  
Products

4,300+  
Customers<sup>(a)</sup>

#1  
Producer of aliphatic isocyanates<sup>(b)</sup>

€2.3bn  
Sales 2017<sup>(c)</sup>

19.3%  
EBIT margin 2017<sup>(c)</sup>

CAS products have all the characteristics of niche coating / ingredients chemicals

- ✓ High value-add materials
- ✓ Priced on the basis of performance, high level of margin resilience
- ✓ Competition with other players based on performance, distinct entry requirements
- ✓ Small proportion of cost to end-customer
- ✓ Low volumes and large number of niche-customized products sold
- ✓ Products tailored to customer needs lead to significant switching efforts
- ✓ Product innovation and R&D critical to success

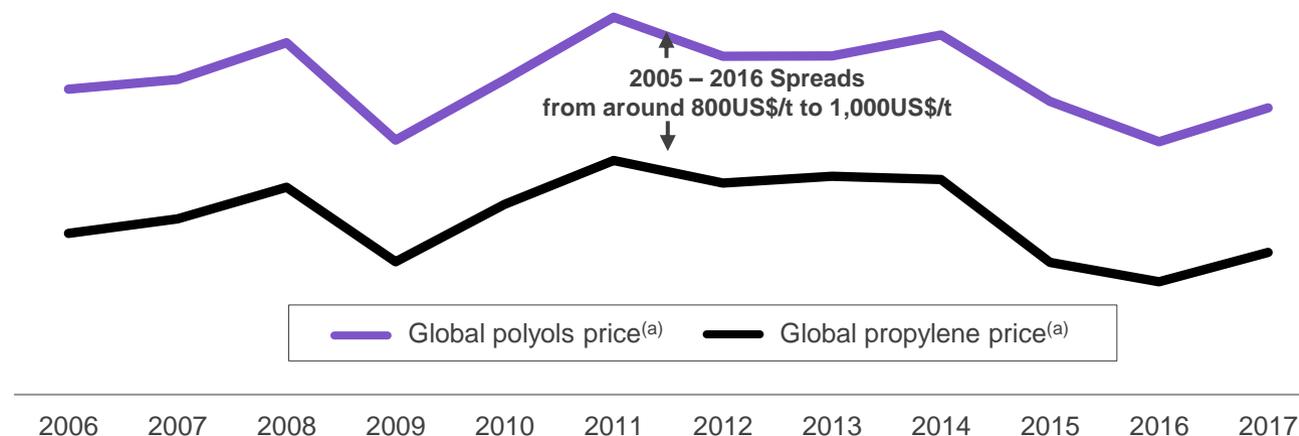
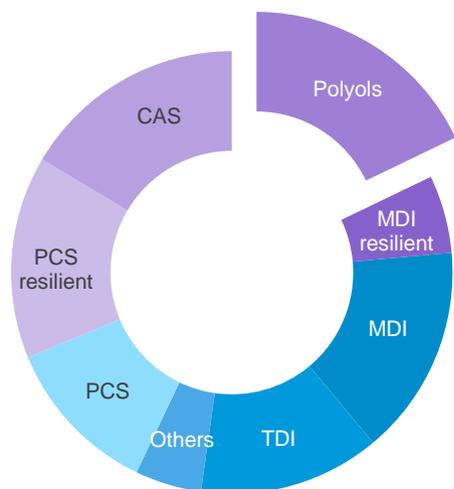
# Margin resilience in polyols

Polyether polyols demonstrate inherently stable margins



## Resilience of polyether polyols business confirmed in 2017

% of 2017 Group sales



- Non-integrated polyether polyols producers with limited competitiveness
- Single capacity addition with little influence on supply / demand dynamics
- Distinct entry requirements for new players, e.g. capex and technology

- Resilient industry margins over the last decade reflective of overall Covestro polyether polyols profitability
- Spreads not materially impacted by high volatility of propylene prices, particularly during the financial crisis
- Propylene oxide supply / demand dynamics create local pricing opportunities in the short-term

# Competitive cost position



## Leading cash costs across business segments and regions



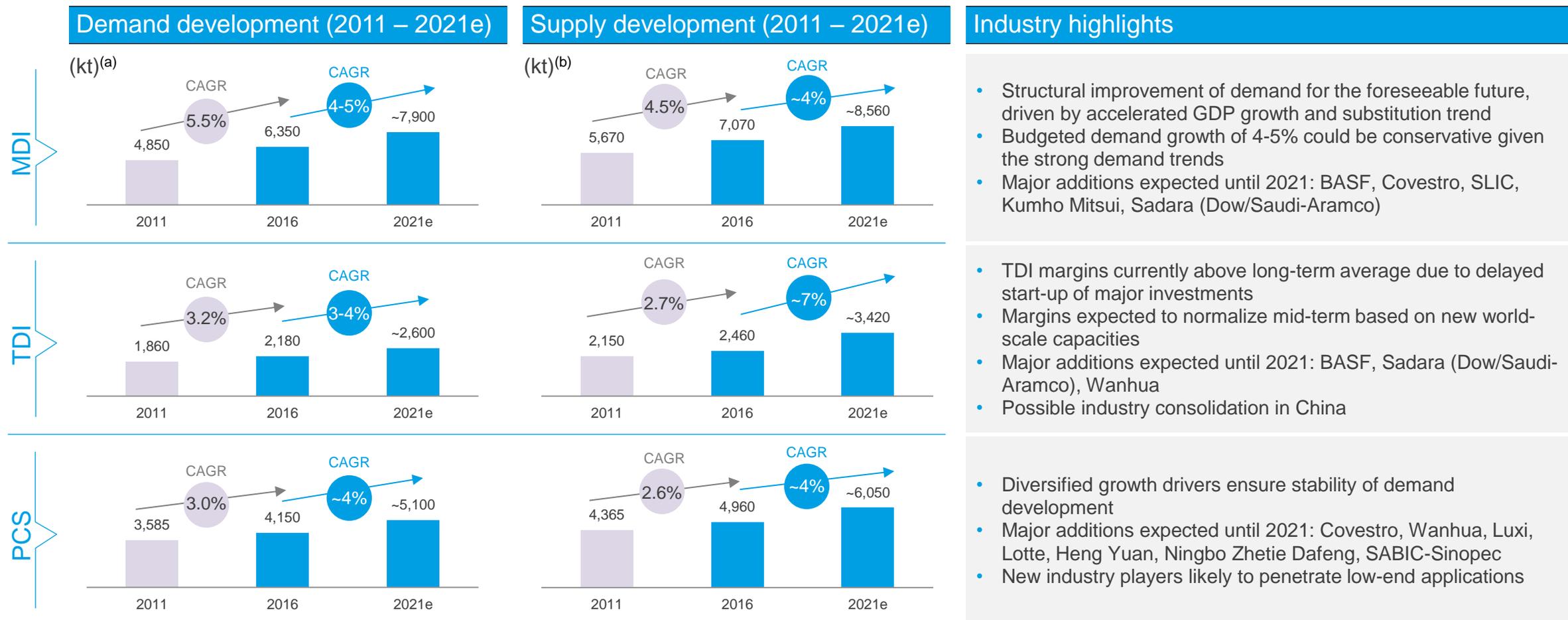
## Highlights

- MDI / TDI are mainly regional industries due to relatively high transportation costs, whereas PC is a rather global industry
- In the US, there are only 2-4 producers, whereas APAC is most fragmented with around a dozen players for each product
- Covestro is the global low-cost producer in TDI / PCS with a cash cost advantage of ~50% / ~30% compared to the average of the 5 least competitive plants
- Covestro is one of the low-cost producers in MDI, which has a relatively flat cost curve reflected by the limited cash cost advantage of only ~20% between the average of the best and worst 5 plants

# Historical industry development and outlook



Above GDP growth driving industry capacity utilization and supporting stable margins

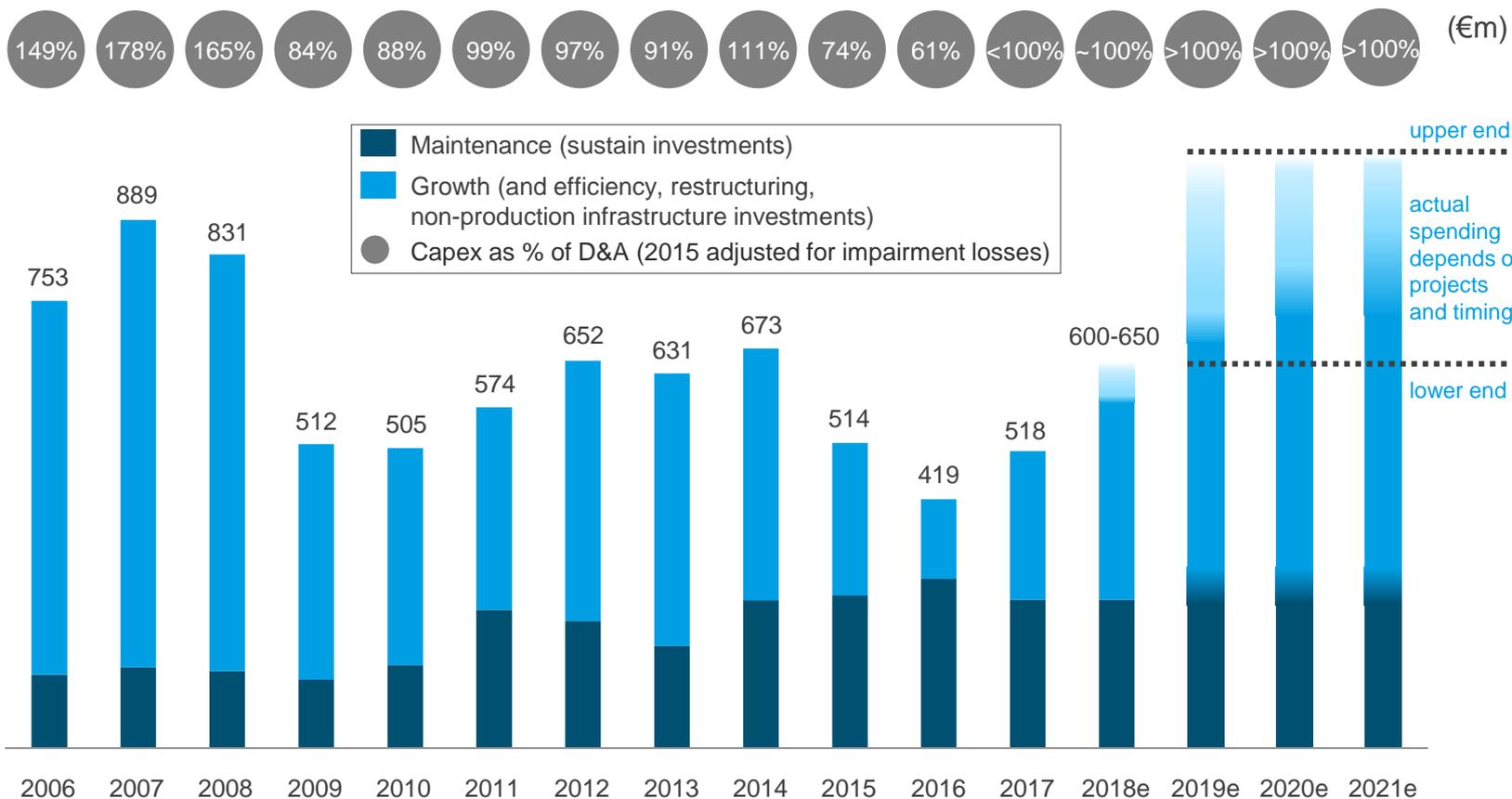


# Smart capex approach

Expand existing asset base through capital-efficient growth investments



## Investments following strict criteria catalogue



## Highlights

### Until 2008

- Capacity expansion through growth investments
- Building up an integrated, multi-BU, world-scale site in Caojing, China, as APAC production hub

### 2009 to 2016

- Continue expansion of Caojing site
- Increasing utilization of underutilized assets
- Optimize regional production network

### 2017 to 2021e

- Accompany industry growth by adding capacity through smart capex approach

### 2022e and beyond

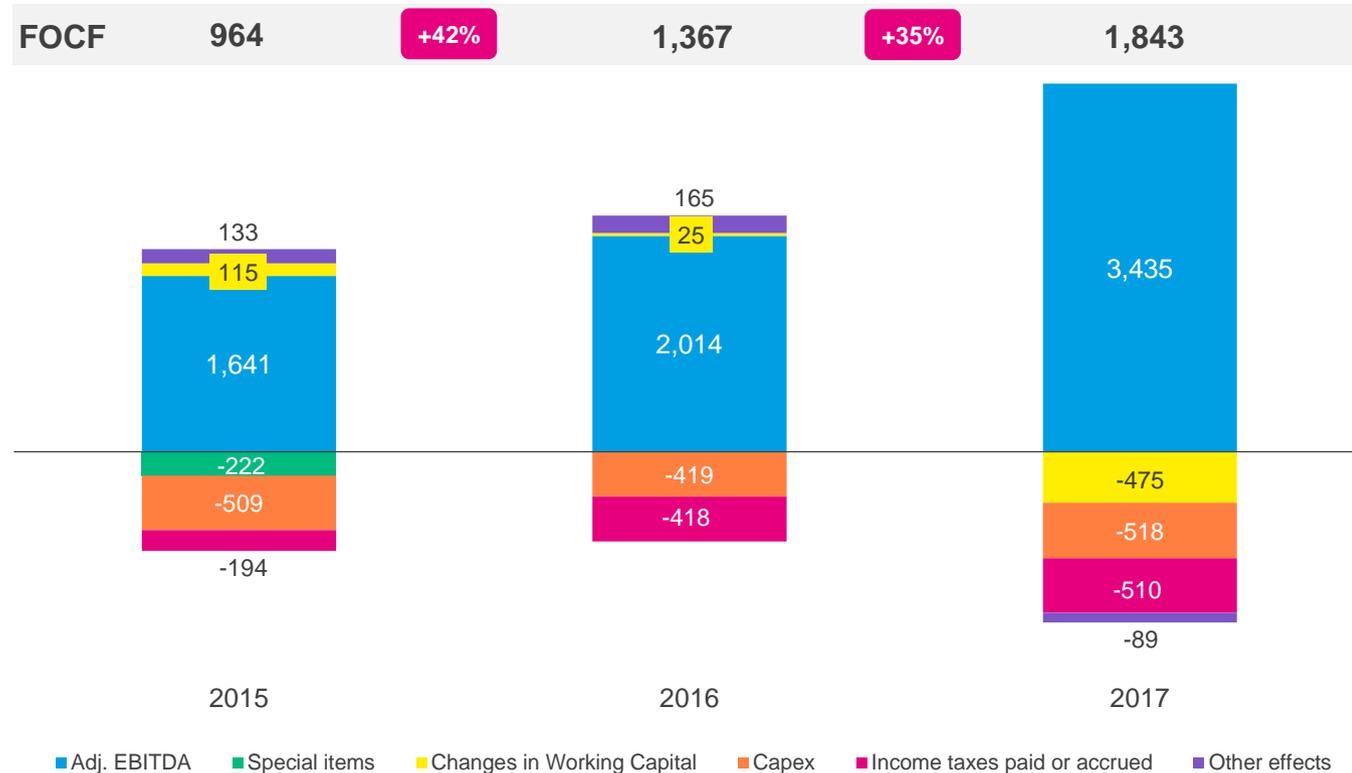
- New growth investments lead to capacity expansions
- Strengthen leading industry positions

# FY 2017 – Free Operating Cash Flow

Record FOCF despite higher working capital

## Free operating cash flow development 2015-2017

in € million



## Highlights

- The FOCF to EBITDA conversion rate decreased from 68% in 2016 to 54% in 2017 due to higher working capital needs
- Working capital to sales ratio almost unchanged at 15.4% in 2017 vs. 15.6% in 2016, within the target range of 15-17%
- Capex of €518m up Y/Y inline with smart capex approach; capex below D&A of €627m

# Accelerated delivery of €5bn cumulative FOCF now until 2019



Use of free cash flow – focus on value creation and cash return to shareholders

## Dividend policy



- FY 2017 dividend of €2.20 per share, 63% above prior year
- Total payout amount of €436m
- Policy: focus on increasing or at least stable dividends going forward

## Portfolio



- Disciplined & focused approach
- Acquisitions with focus on high margin and differentiated business areas
- Ongoing portfolio optimization including evaluation of potential disposals

## Return to shareholders



- Share buy-back for up to €1.5bn<sup>(a)</sup> started in Q4 2017, running until mid-2019
- 4.5 million shares bought back for a total amount of €400m during first tranche
- Commitment to return further excess cash to shareholders

# Attractive cash flow profile

Focus on value creation



- 1 Strong cash generation history and future commitment**  
driven by volume growth, operational leverage and profitability enhancement measures
- 2 Smart capex approach**  
balances required capacity additions and capital-efficient growth investments
- 3 Disciplined M&A strategy with focus on value creation**  
follows clear strategic direction, defined process and strict financial criteria
- 4 Return of excess cash to shareholders started in Q4 2017**  
via share buy-back of up to €1.5bn or up to 10% of stock capital
- 5 Attractive dividend policy**  
with focus on increasing or at least stable dividends going forward

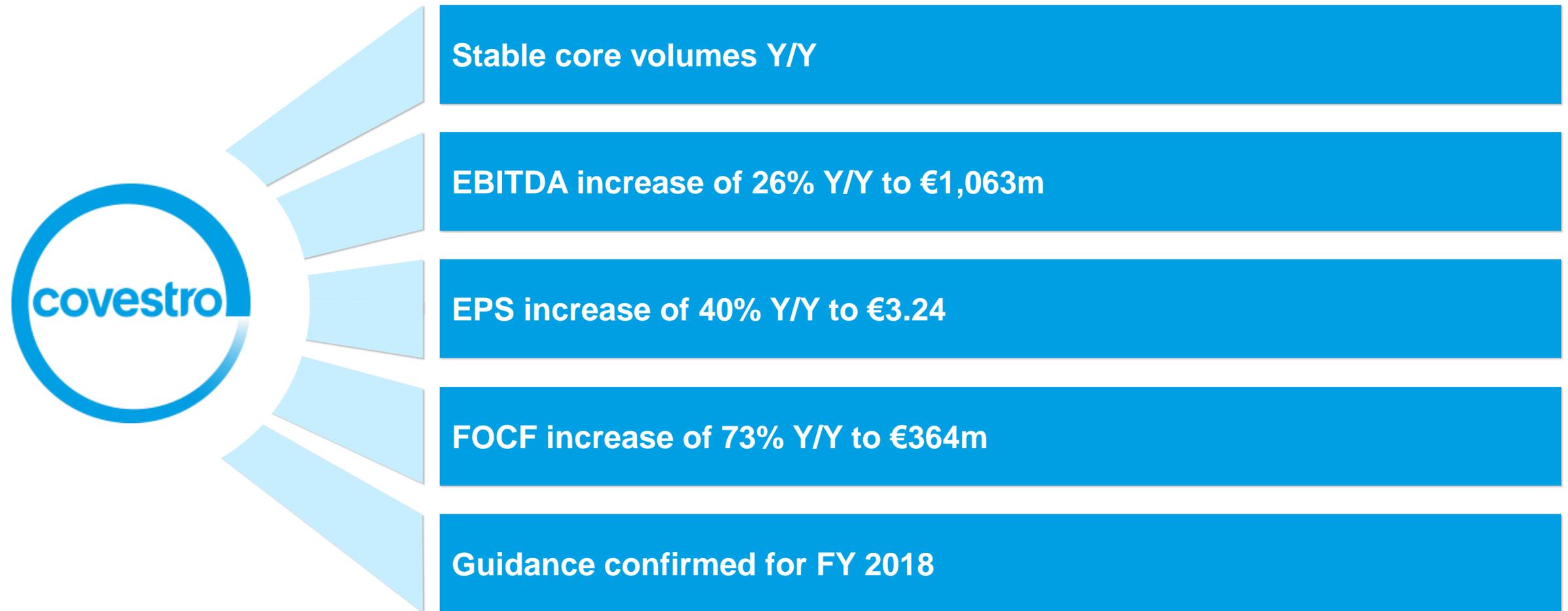


# Financial Highlights

## Q1 2018

# Q1 2018 Key Highlights

Well on track



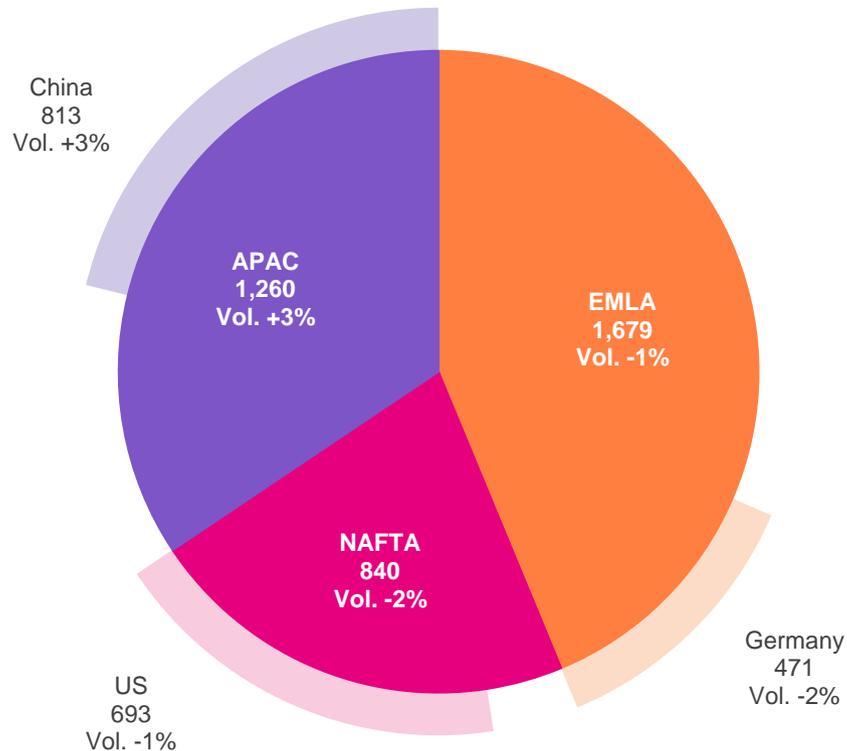
# Q1 2018 – Sales per Region

Core volumes on high previous year's level



## Development in Q1 2018

in € million / Core volume growth Y/Y



## Highlights

### High basis in Q1 2017

- Sell out of production and inventories to satisfy pent-up demand after Force Majeure in Q4 2016
- Ramp-up of new production lines in China at PCS
- Pre-buying at CAS ahead of announced price increases

### Stable core volumes in Q1 2018

- Constrained availability of supply in all regions
- Solid demand in Automotive, decline in Construction
- EMLA: solid growth in Germany for CAS, double-digit growth in Latin America, driven by Brazil
- NAFTA: Positive development in PUR
- APAC: Strong core volume growth in PCS, stable development in PUR and CAS

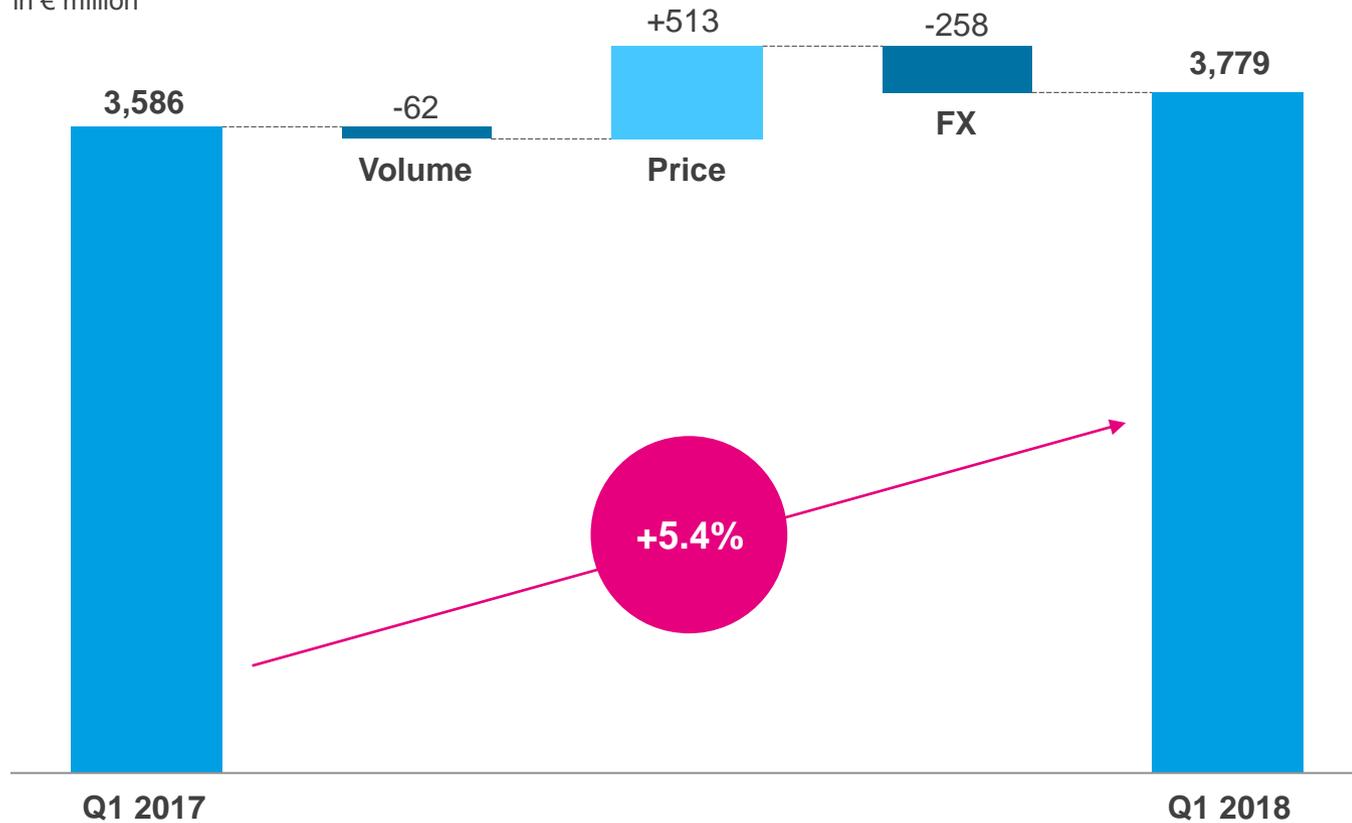
# Q1 2018 – Sales Bridge

Strong pricing mitigated by considerable FX headwind



## Sales Bridge

in € million



## Highlights

### Strong pricing and high industry utilization

- Higher selling prices positively impacted sales by 14.3% Y/Y
- Sales volumes declined by 1.7% Y/Y due to significantly lower non-core volumes

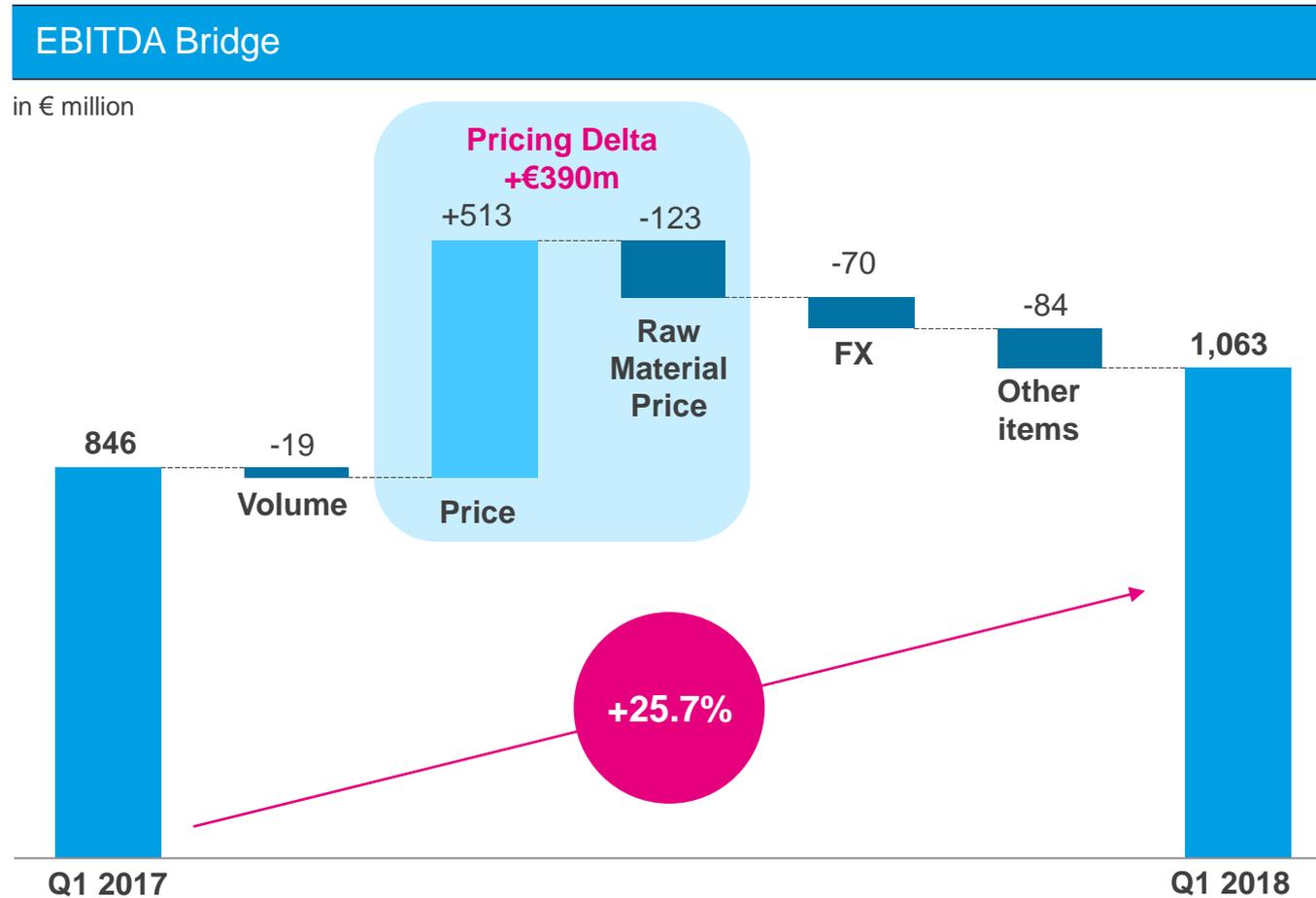
### Negative FX impact

- FX effects burdened sales by 7.2% Y/Y mainly due to weaker USD and CNY

# Q1 2018 – EBITDA Bridge



Expanded pricing delta fully compensates considerable FX headwind



## Highlights

### Improving cash margin

- Positive pricing delta driven by PUR and PCS
- Selling prices increased significantly more than raw material prices

### Considerable FX headwind

### Other items

- Higher maintenance costs
- Increased costs for logistics
- Prior-year benefited from provision release of €9m for Tarragona

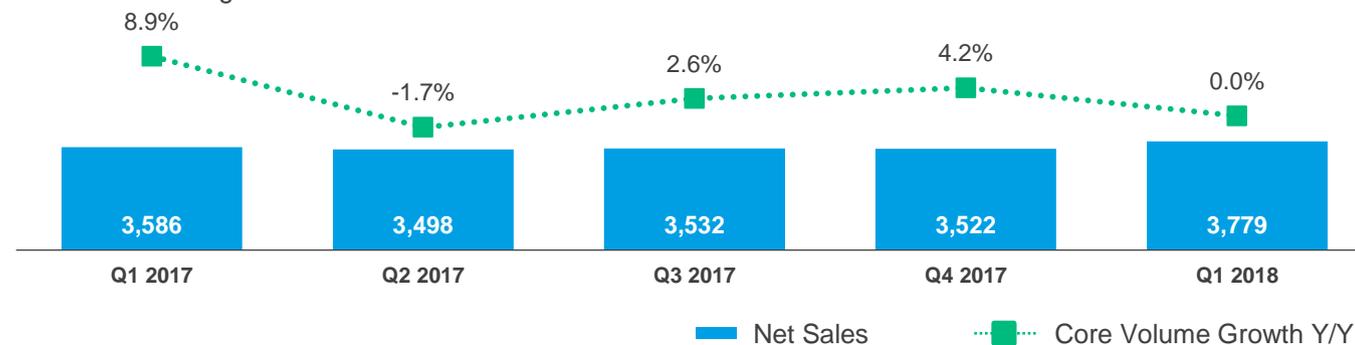
# Q1 2018 – Group Results

Continued margin expansion



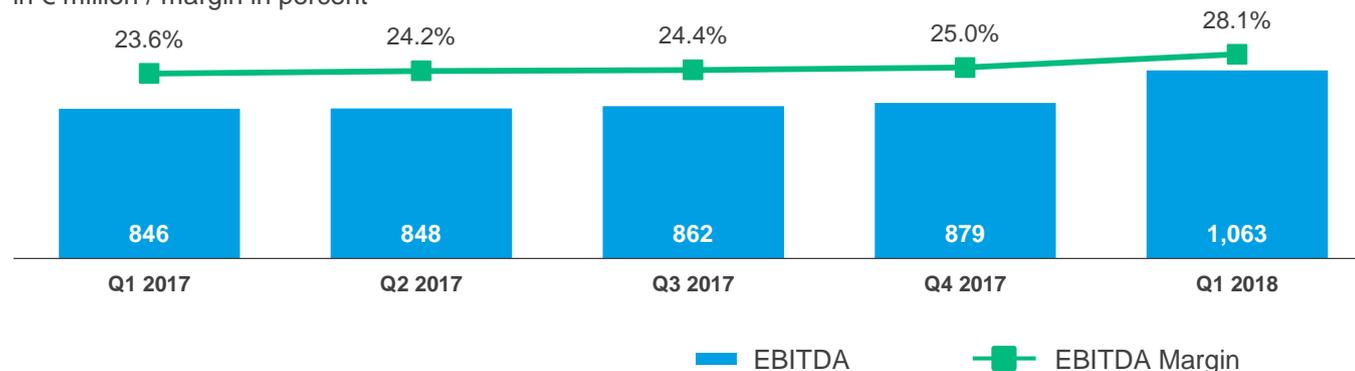
## Net Sales and Core Volume Growth

in € million / changes Y/Y



## EBITDA and Margin

in € million / margin in percent



## Highlights

- Stable core volumes (in kt) on high level: PCS compensates for declines in PUR and CAS
- Sales increased by 5.4% driven by higher prices

## Highlights

- EBITDA margin improved significantly to 28.1% vs. 23.6% in Q1 2017
- Excluding TDI fly-up, margin increased to c.23% vs. c.20% in Q1 2017
- Q1 2018 represents 13<sup>th</sup> consecutive quarter with Y/Y EBITDA increase

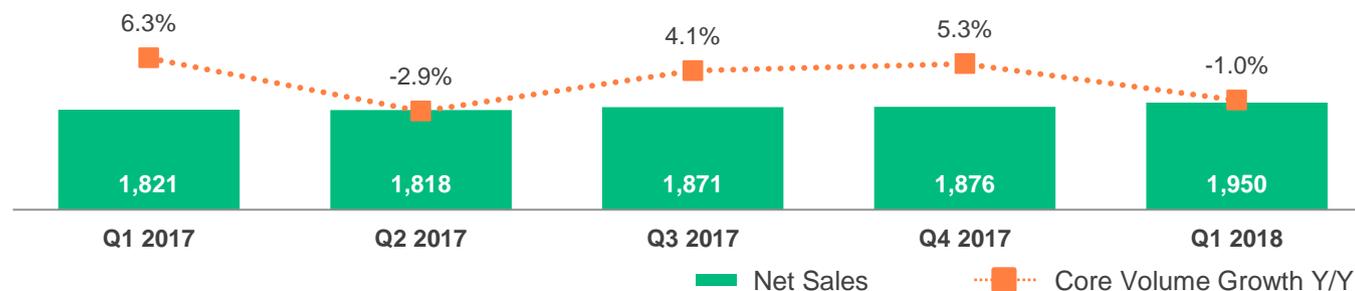
# Q1 2018 – PUR Segment Results

Polyurethanes – record margins continued



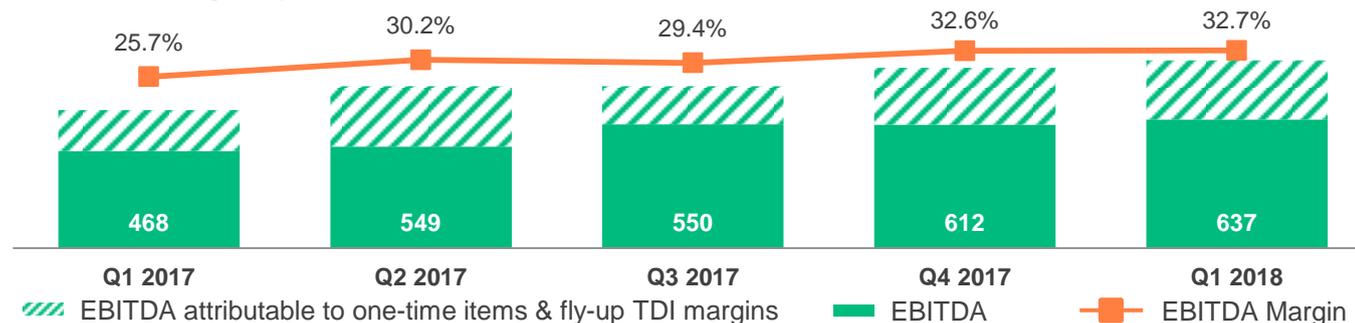
## Net Sales and Core Volume Growth

in € million / changes Y/Y



## EBITDA and Margin

in € million / margin in percent



Restatement of all 2017 figures to reflect the reclassification of the specialty elastomers business

## Highlights

- Slight decline in core volumes due to constrained product availability
- Sales increased by 7.1% Y/Y driven by price in all three product groups
- Negative FX impact (-7.4% Y/Y)

## Highlights

- EBITDA increased by 36.1% Y/Y with a margin of 32.7% vs. 25.7% in Q1 2017
- Underlying EBITDA margin excluding TDI fly-up contribution expanded to c.22% vs. c.19% in Q1 2017 driven by higher margins in MDI

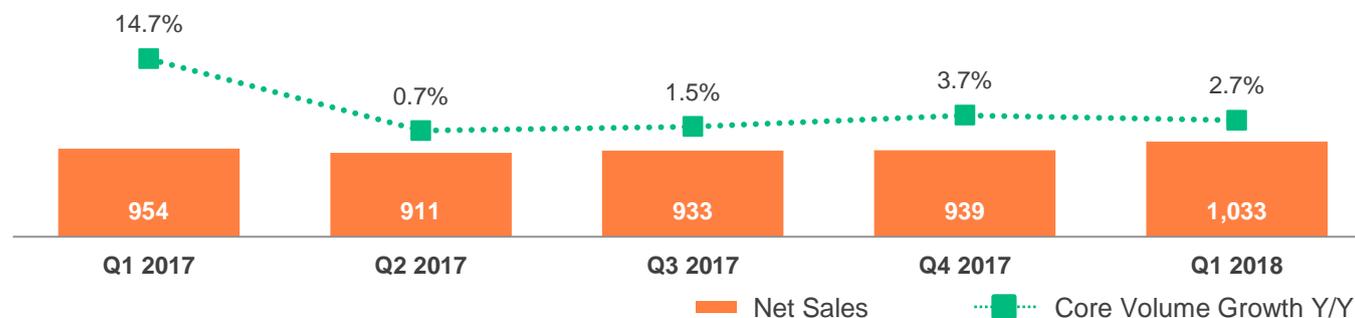
# Q1 2018 – PCS Segment Results

Polycarbonates – Favorable pricing delta



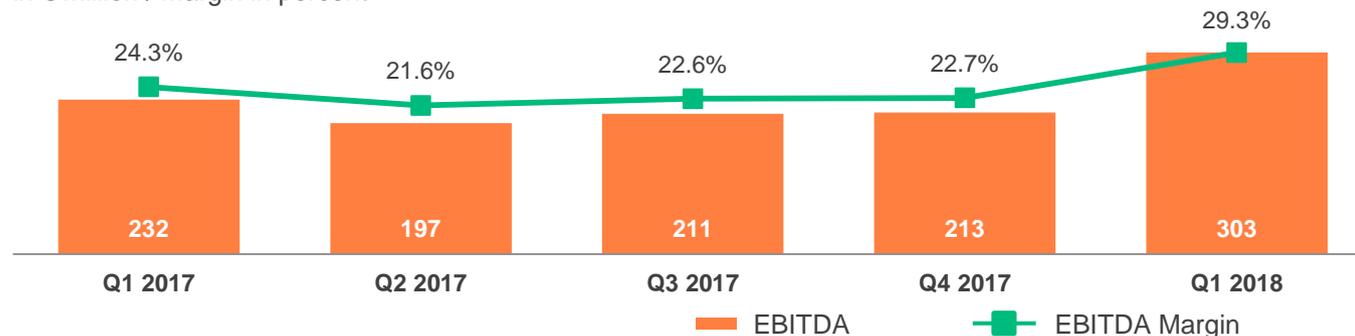
## Net Sales and Core Volume Growth

in € million / changes Y/Y



## EBITDA and Margin

in € million / margin in percent



## Highlights

- Solid core volume growth of 2.7% Y/Y despite double-digit increase in Q1 2017
- Sales increase by 8.3% Y/Y, mainly driven by higher selling prices (+16.3% Y/Y)
- Negative FX impact (-8.2% Y/Y)

## Highlights

- EBITDA increased by 30.6% due to positive pricing delta and volume leverage
- Price increases balanced out negative raw material impact

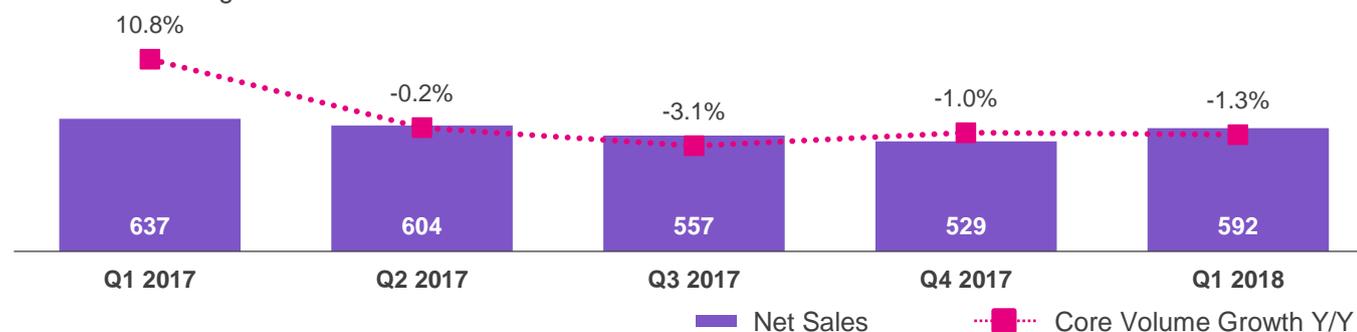
# Q1 2018 – CAS Segment Results

Coatings, Adhesives, Specialties – Encouraging start to the year



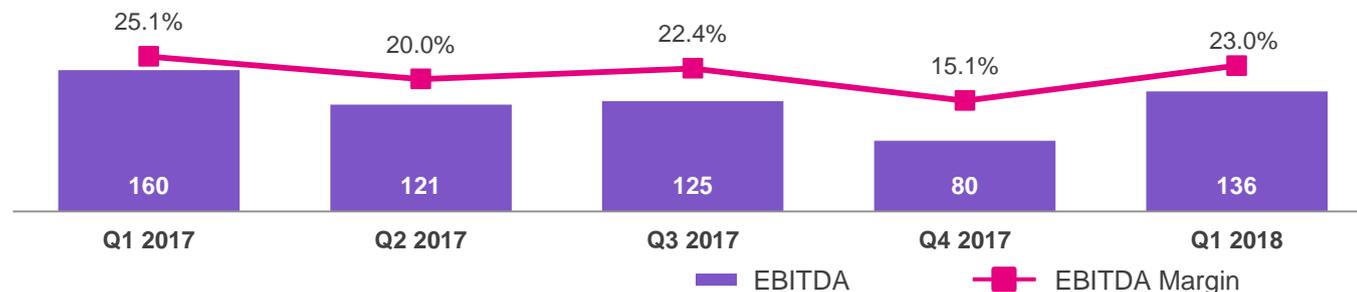
## Net Sales and Core Volume Growth

in € million / changes Y/Y



## EBITDA and Margin

in € million / margin in percent



Restatement of all 2017 figures to reflect the reclassification of the specialty elastomers business

## Highlights

- Slight decline in core volumes, although on high previous year's level
- Sales decrease by 7.1% Y/Y, driven by volume (-2.2% Y/Y) and negative FX impact (-5.9% Y/Y)

## Highlights

- EBITDA decreased by 15.0% Y/Y due to higher raw material costs and lower sales volumes
- EBITDA margin of 23% on high level

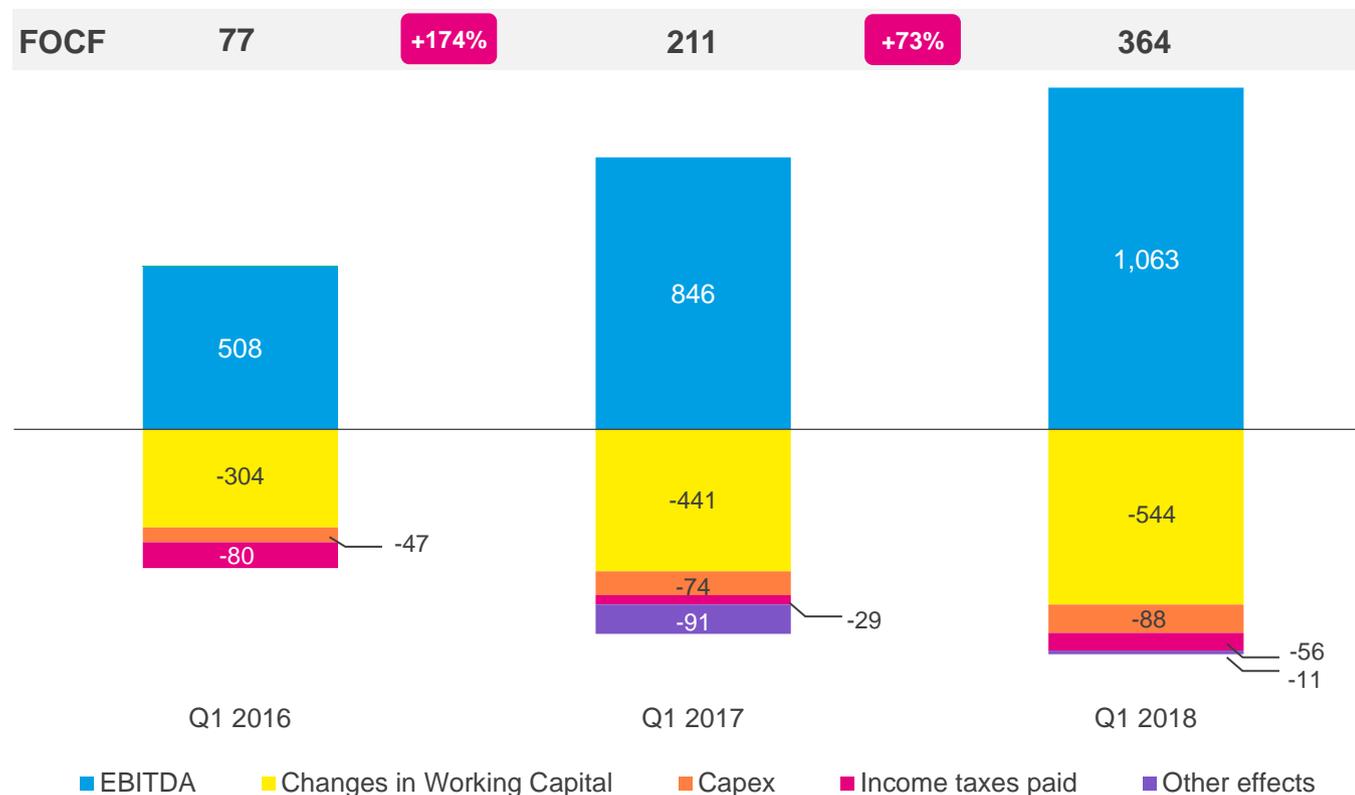
# Q1 2018 – Free Operating Cash Flow

Strong FOCF despite higher working capital



## Free Operating Cash Flow development

in € million



## Highlights

- FOCF follows EBITDA development: FOCF to EBITDA conversion rate increased to 34% vs. 25% in Q1 2017
- Working capital to sales ratio\* at 18.7% driven by usual seasonality, plus higher valuation of stocks and increased receivables
- Capex of €88m up Y/Y in line with smart capex approach and full year guidance

\* Method of calculation: WC on 31.03.2018 divided by sales of last four quarters

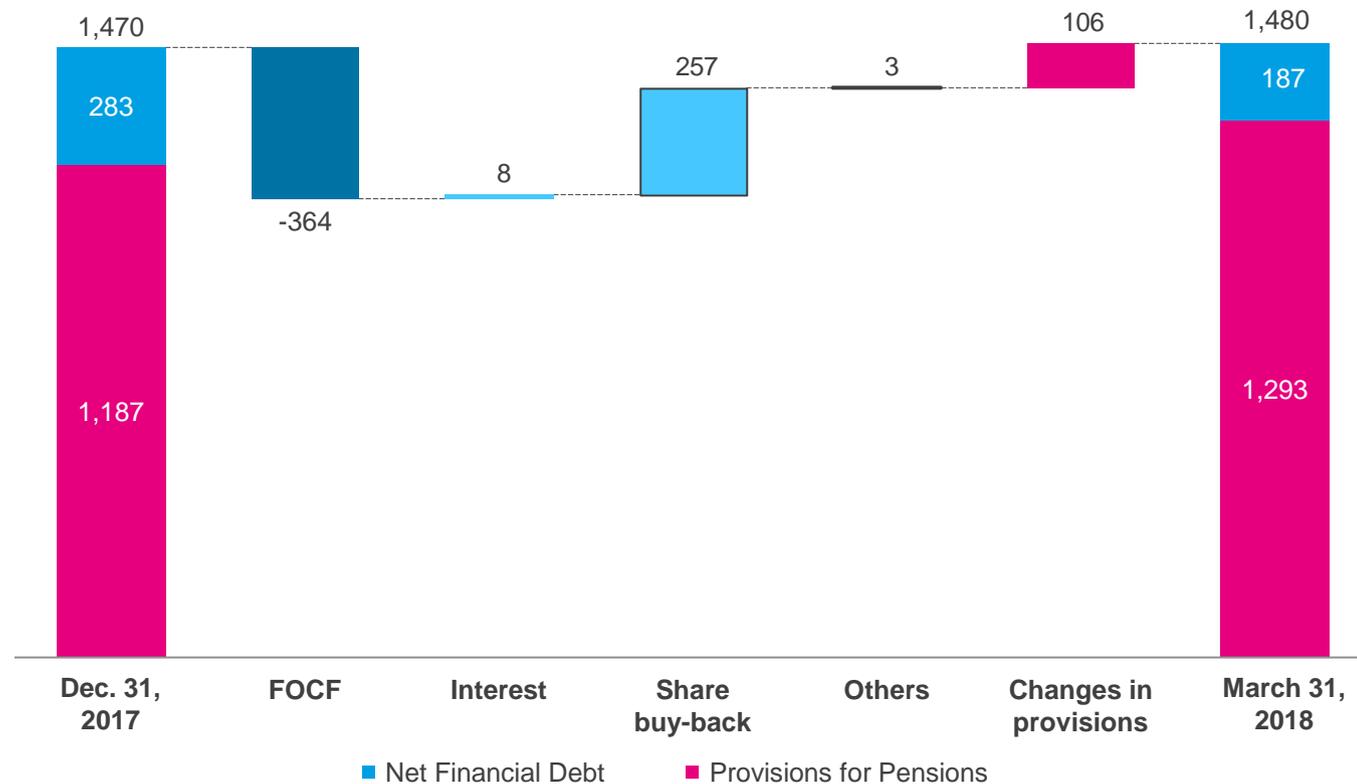
# Q1 2018 – Total net debt

Strong balance sheet



## Total net debt

in € million



## Highlights

- Total net debt to EBITDA ratio\* unchanged at 0.4x
- Further decrease of net financial debt by €96m, despite cash outflow for the share buy-back
- Repayment of a €500m bond out of cash
- Pension provisions increased by €106m due to lower interest rates
- Equity ratio further improved to 50%

\* Method of calculation: Total net debt on 31.03.2018 divided by EBITDA of last four quarters

# Confirmation of 2018 guidance

Well on track



|                                   | FY 2017                 | Guidance FY 2018  |
|-----------------------------------|-------------------------|---|
| Core Volume Growth                | +3.4%                   | Low- to mid-single-digit percentage increase Y/Y        |
| FOCF                              | Ø 2015-2017:<br>€1,391m | Significantly above the average of the last three years |
| ROCE                              | 33.4%                   | Approaching previous year's level                       |
| Additional financial expectations | FY 2017                 | Guidance FY 2018  |
| EBITDA FY                         | €3,435m                 | Around previous year's level                            |
| EBITDA Q2                         | Q2 2017: €848m          | Above previous year's level                             |
| D&A                               | €627m                   | €600-620m   |
| Financial results                 | €-150m                  | €-100 to -120m  |
| Effective tax rate                | 24.1%                   | 25-27%  |
| Capex                             | €518m                   | €600-650m   |

Basic assumptions FY 2018: Exchange rate of EUR/USD ~1.20 and a similar macroeconomic environment as in 2017

# Upcoming IR Events

Find more information on [investor.covestro.com](http://investor.covestro.com)



## Reporting dates

- July 26, 2018 Half-Year Financial Report 2018
- October 25, 2018 Q3 2018 Interim Statement
- February 25, 2019 Annual Report 2018

## Capital Markets Day

- June 28, 2018 London

## Broker conferences

- May 15, 2018 Deutsche Bank, 9<sup>th</sup> Annual dbAccess Asia Conference 2018, Singapore
- May 24, 2018 Berenberg ,USA Conference 2018, Tarrytown
- June 5, 2018 Commerzbank, mBank Chemical Event, Warsaw
- June 6-7, 2018 Deutsche Bank, dbAccess, German, Swiss & Austrian Conference, Berlin

## Annual General Meeting

- April 12, 2019 Annual General Meeting, Bonn



# Disclaimer

This presentation may contain forward-looking statements based on current assumptions and forecasts made by Covestro AG.

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