



# Raising the bar

## 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

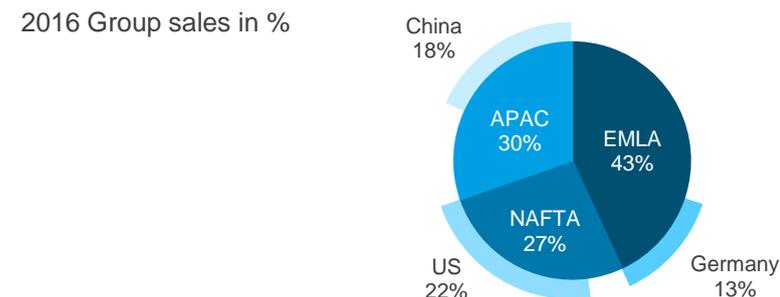
# Covestro at a glance



Inventor and leader in high-tech material solutions driven by global trends

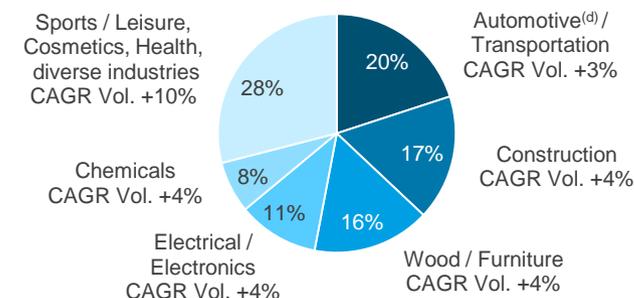
- Leading global polymer producer in polyurethanes and its derivatives as well as polycarbonates
- Proven track record of process and product innovation, customer proximity as well as market-driven solutions
- State-of-the-art asset base with leading process technology and total production capacity of 4,950kt<sup>(a)</sup> distributed across 8 world-scale production facilities in three main regions
- 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. 15,600 employees<sup>(b)</sup> globally

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



## Sales split by end-market

2016 Group sales in % / Core volume growth, CAGR 2014-2016



Key financials 2016	Sales €11.9bn	Sales Core Vol. CAGR 2014-2016: +5%	Adj. EBITDA €2.0bn	FOCF €1.4bn	ROCE 14.2%
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# 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 (3,470kt)</b> <ul style="list-style-type: none"> <li>MDI: #3 (1,420kt)</li> <li>TDI: #1 (720kt)</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 isocyanate derivatives</li> <li>Aromatic isocyanate derivatives</li> <li>Polyurethane dispersions</li> </ul>
<b>Sales 2016</b>	<b>€5.9bn or 50% of Covestro</b>	<b>€3.3bn or 28% of Covestro</b>	<b>€2.0bn or 17% of Covestro</b>
<b>Adj. EBITDA Margin 2016</b>	<b>14.9%</b>	<b>21.3%</b>	<b>24.5%</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>Construction (windows, roof structure)</li> <li>Consumer products, medical 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> </ul>  

# Global industry positions

Covestro is a leader across its entire portfolio



## Polyurethanes

## Polycarbonates

## Coatings, Adhesives, Specialties

Capacity share in 2016<sup>(a)</sup>

MDI

TDI

Polyether polyols

PC

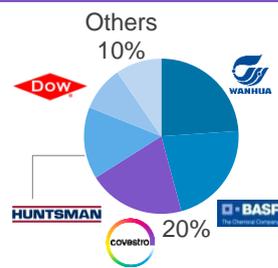
Aliphatic isocyanate derivatives

Polyurethane dispersions

#1 in PUR

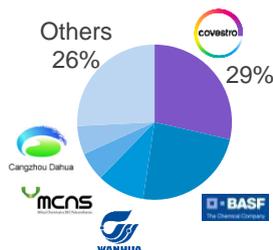
#1 in PC

#1 in CAS



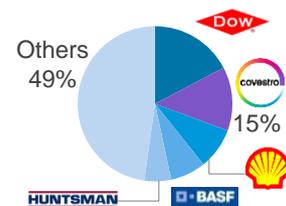
**Top 5: 90%**

2021e: Top 5 expected to account for 91%



**Top 5: 74%**

2021e: Top 5 expected to account for 75%



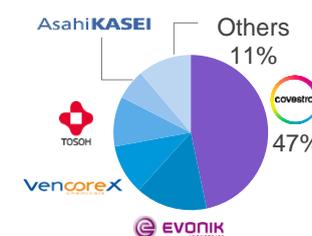
**Top 5: 52%**

2021e: Further consolidation expected, especially in China



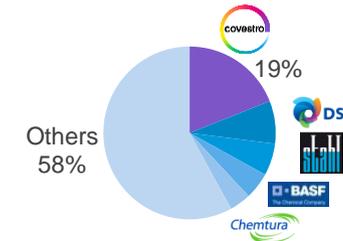
**Top 5: 81%**

2021e: Top 5 expected to account for >70%



**Top 5: 89%**

2021e: Industry structure expected to remain stable



**Top 5: 42%**

2021e: Industry structure expected to remain stable

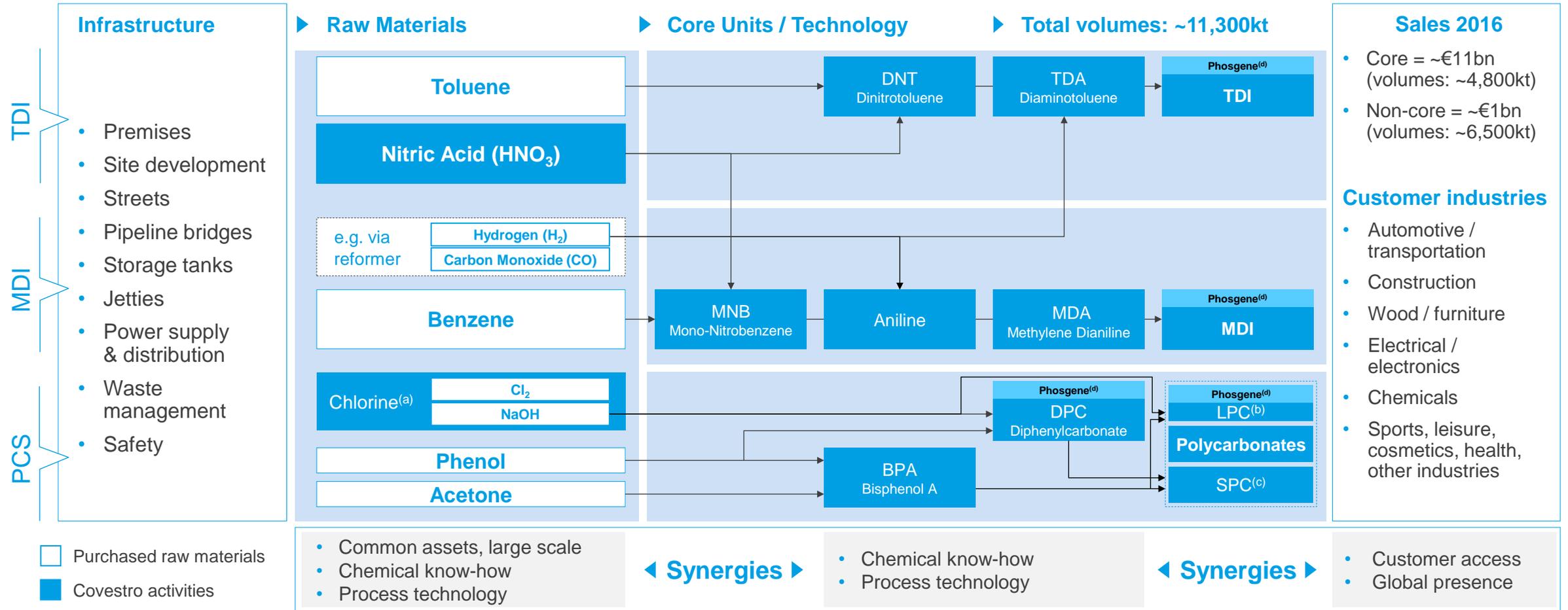
Entry requirements

- 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

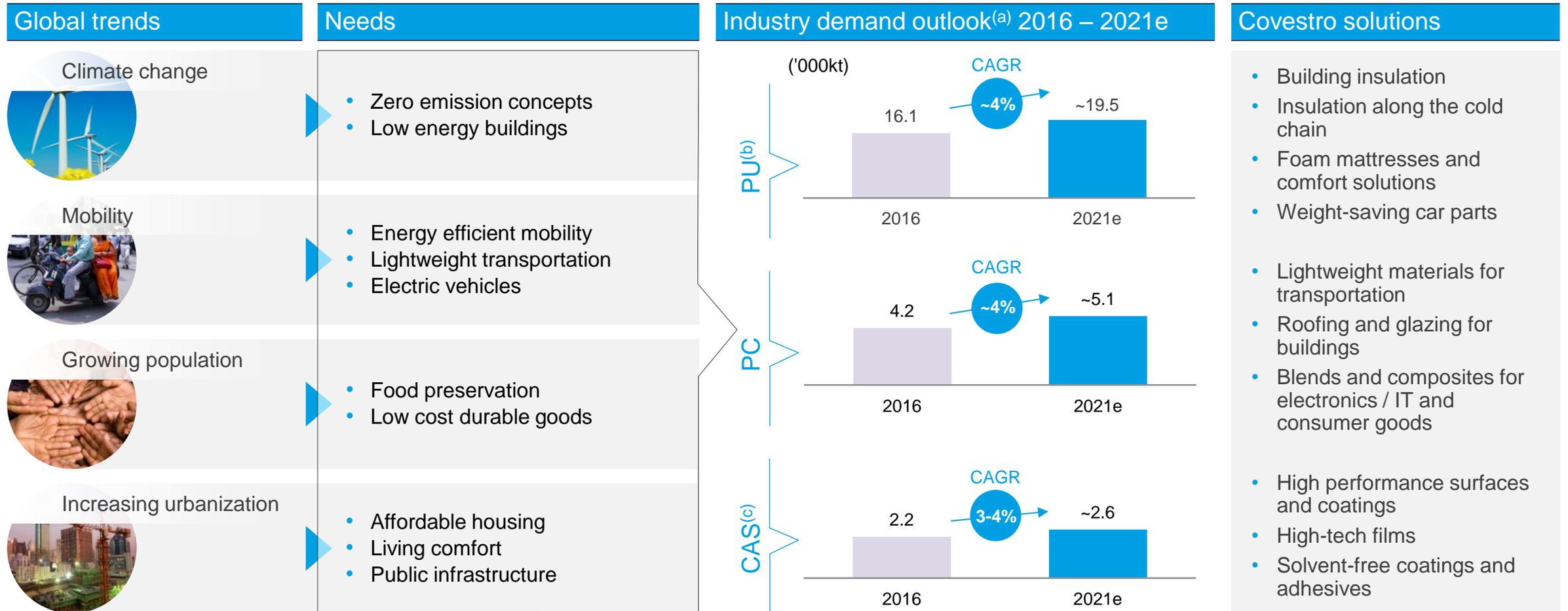
# A common chemical backbone across all segments

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



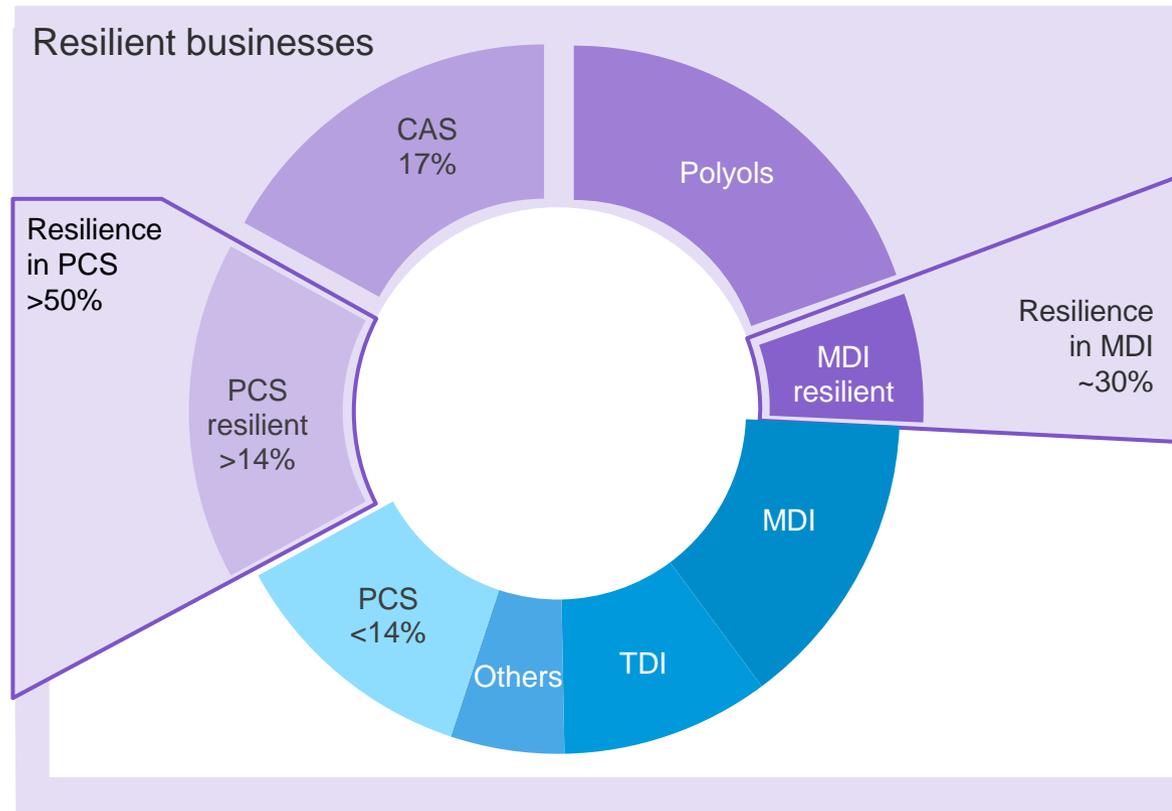
Need	Overall market <sup>(a)</sup>	Relevant market <sup>(b)</sup>	Covestro solutions
More durable and economical wind power plants	Energy consumption CAGR: ~3%	Offshore wind energy CAGR: ~19%	Novel components for wind power plants: PU resins for rotor blades, PU materials for coatings, Elastomers for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

# Portfolio geared towards differentiated products

Over 50% of sales and ~70% of earnings generated with resilient businesses

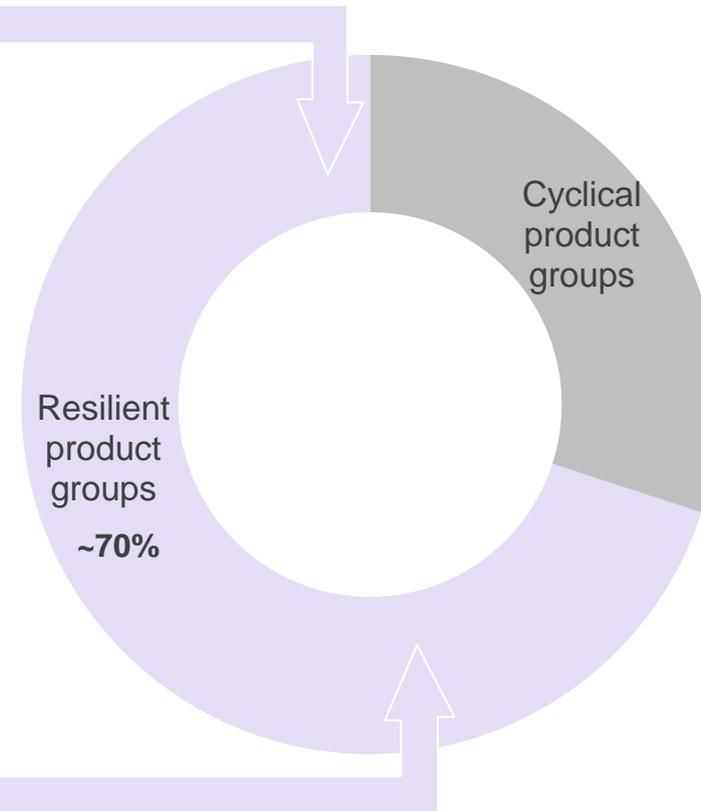
## Sales by segments

% of 2016 Group sales



## Earnings of resilient businesses

% of 2016 Group earnings<sup>(a)</sup>

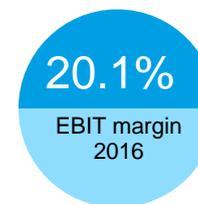


# Margin resilience in CAS

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

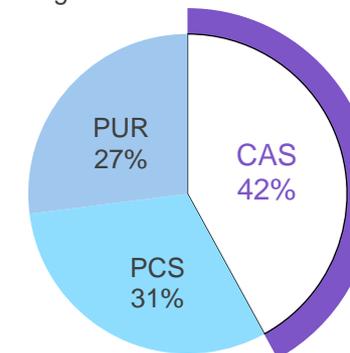


CAS products have all the characteristics of niche coating / ingredients chemicals

- ✓ 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

EBIT contribution of segments<sup>(c)</sup>

in €m / average 2014-2016

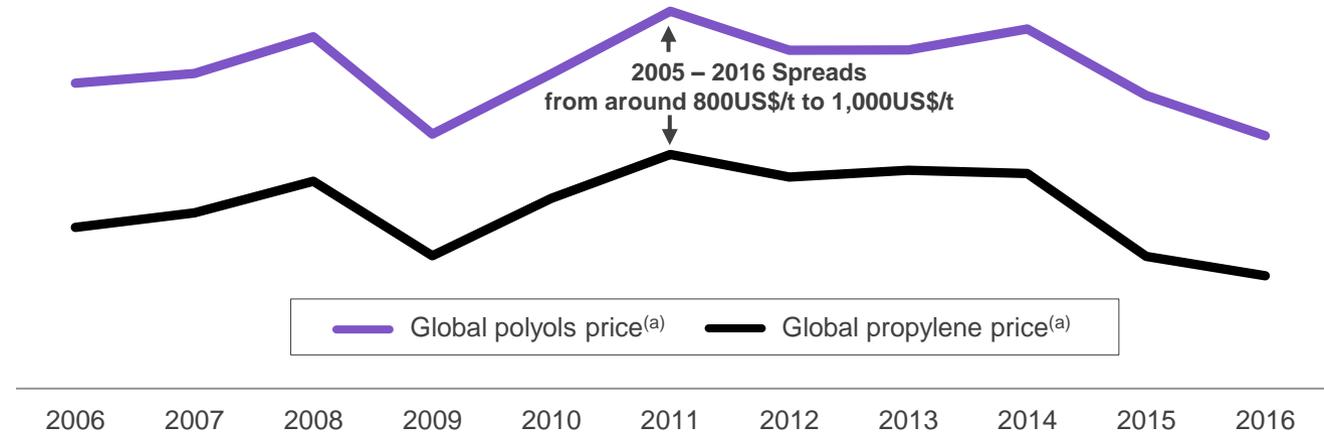
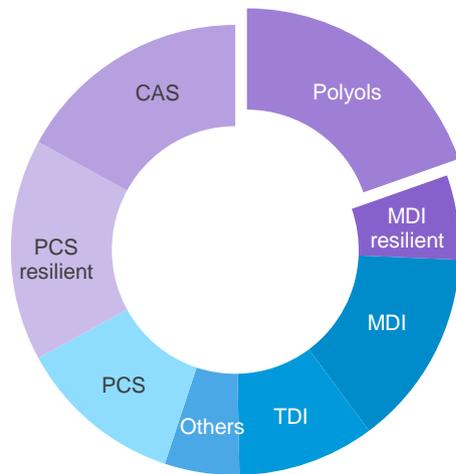


# Margin resilience in polyols

Polyether polyols demonstrate inherently stable margins

Resilience of polyether polyols business confirmed in 2016, although at low end of historic band

% of 2016 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

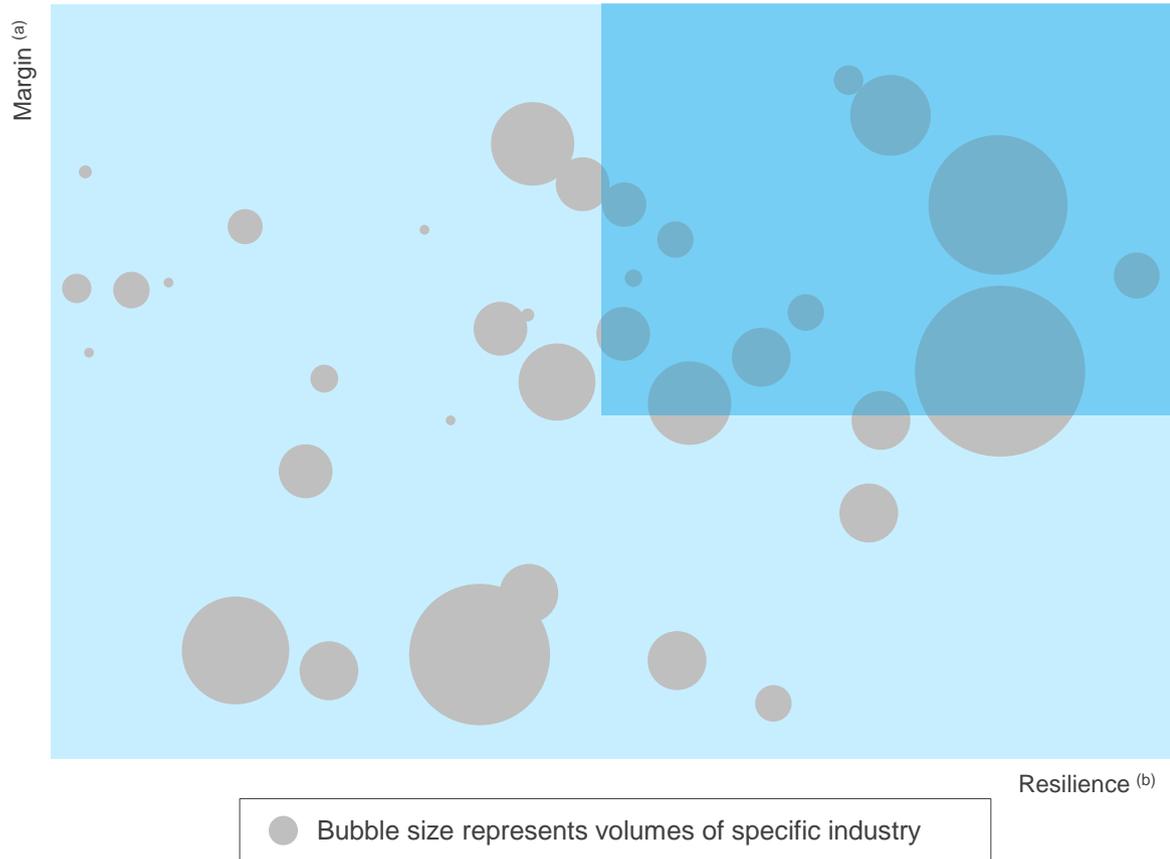
- Resilient industry margins over the last decade reflective of overall Covestro polyether polyols profitability
- Spreads not materially impacted by high volatility of propylene prices, particularly during the financial crisis
- Propylene oxide supply / demand dynamics create local pricing opportunities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

# Margin resilience in PCS

Excellent global position to access differentiated, high-value polycarbonates applications



## Resilient portion of PCS volumes accounts for ~50% in 2016



## Improving portfolio mix

### High-value industry application (e.g. automotive, medical, electrical)

- Greater technical specification requirement
- Longer lifecycles, higher market growth
- Comprehensive innovation capabilities and technical service is key
- Premium pricing in selected segments

### Limited disruptions from new capacity additions

- Niche applications with strong differentiation potential
- Customer intimacy and distinct industry entry requirements
- Investment need for material switch

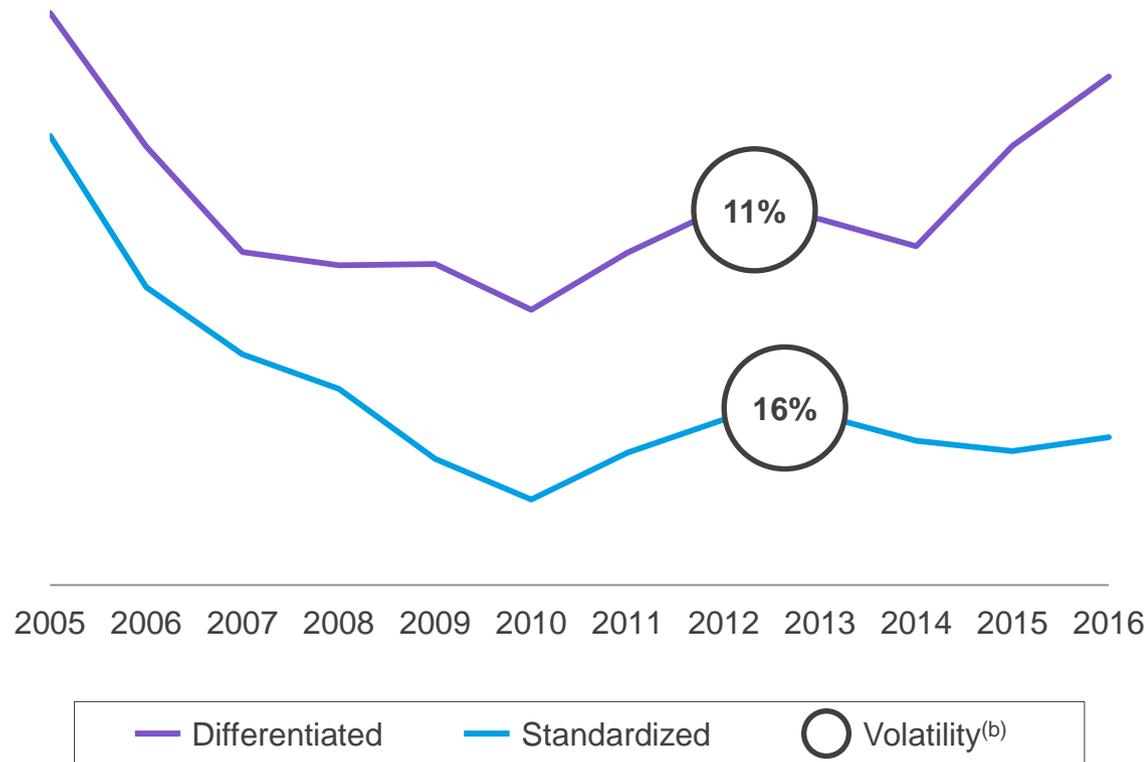
Resilient portion of PCS volumes improved from ~40% to ~50% in the last 5 years, supported by continuous progress of innovative offerings

# Margin resilience in MDI

MDI product portfolio leads to increased resilience in earnings

Differentiated grades account for ~30% of MDI sales in 2016

Margin<sup>(a)</sup>



Differentiation potential beyond standardized products

## Joint sales of polyols and MDI

- Examples: CASE<sup>(c)</sup>, soft furniture, automotive seating

## Specialty or downstream products

- Examples: Selected MDI grades (pre-polymers, blends, monomeric), TPU

## Formulations as market access requirement

- Examples: Automotive, appliances

## Customized solutions

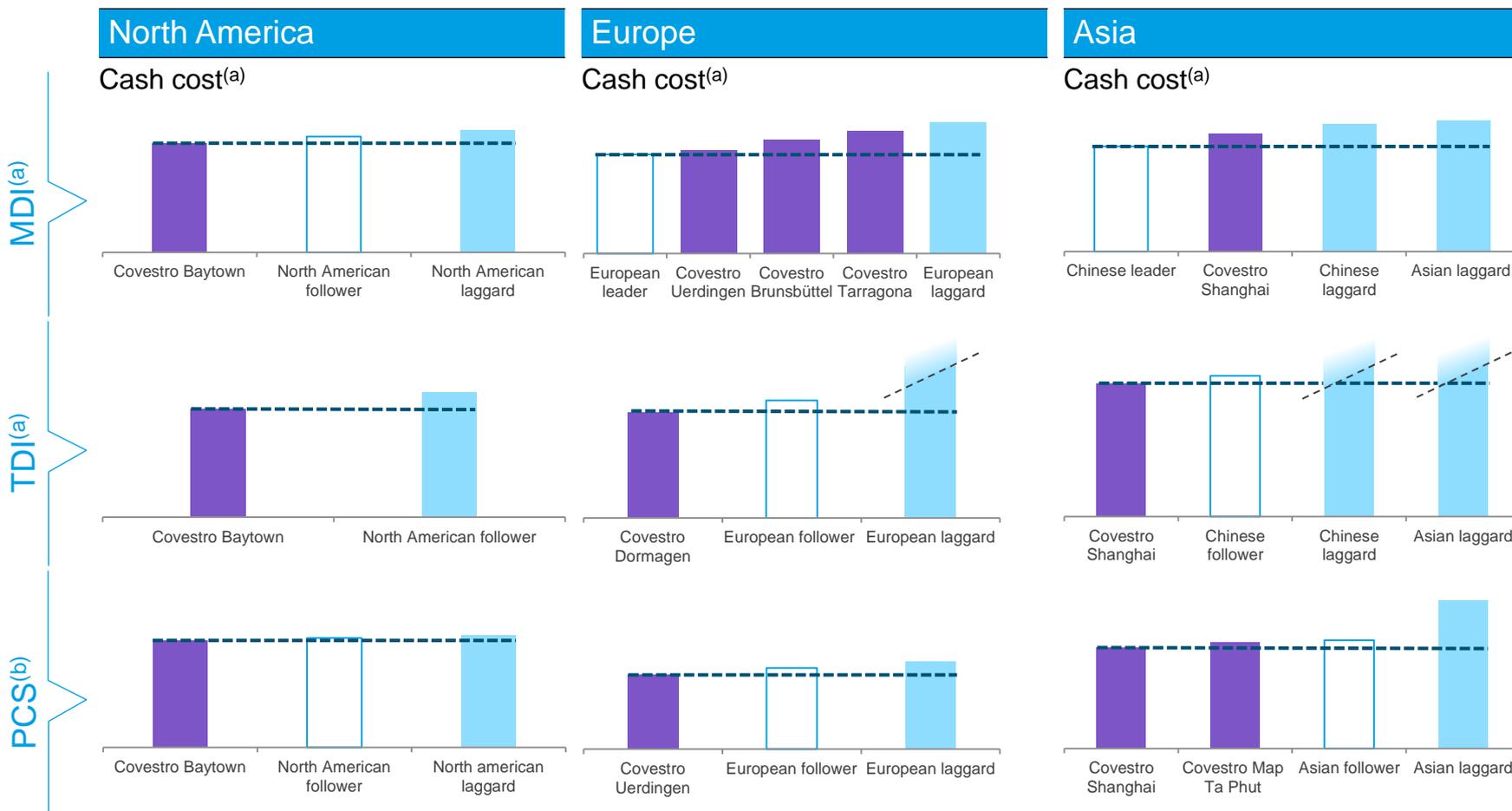
- Example: Window frames

Differentiated business with ~0.25€/kg higher gross margin

# Competitive cost position



## Leading cash costs across business segments and regions



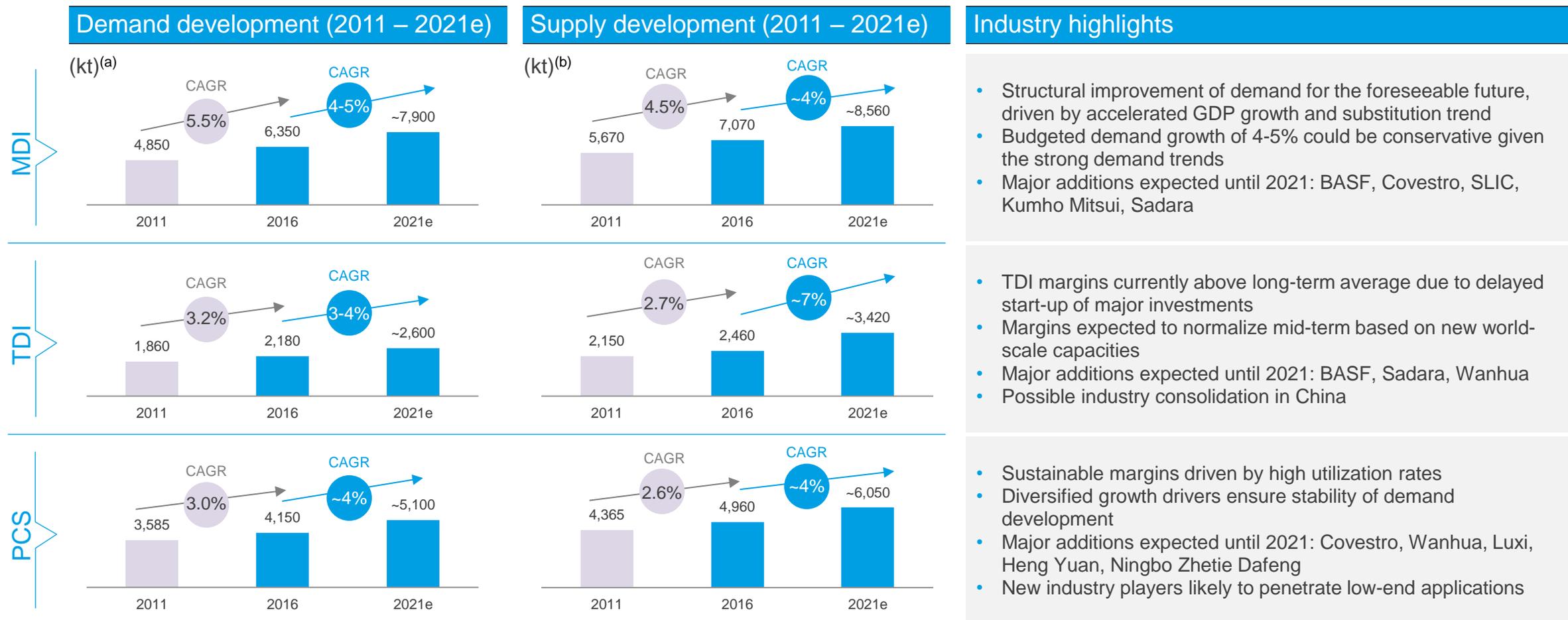
## Highlights

- 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 relative flat cost curve given 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

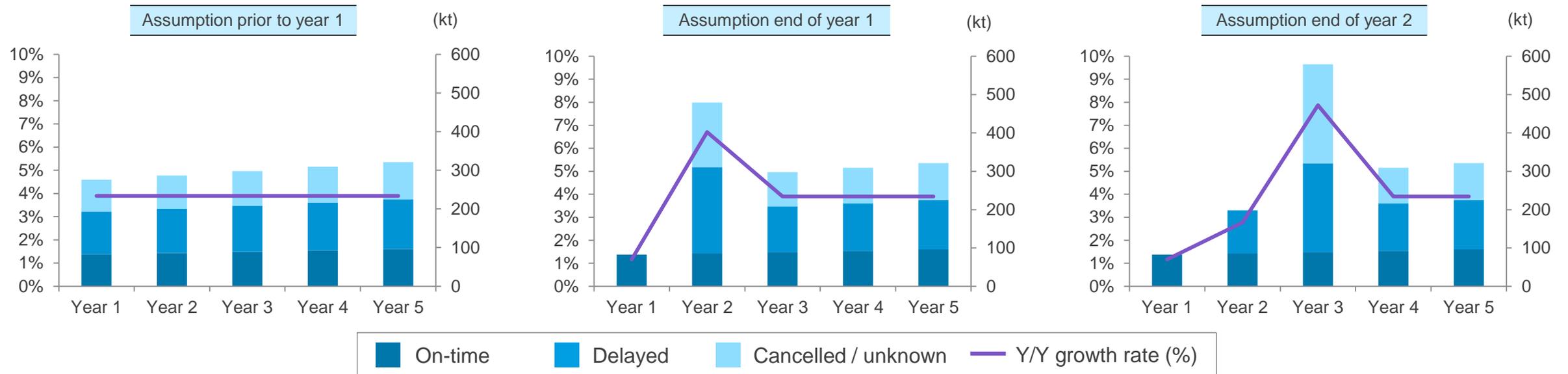


# Modeling future supply additions



## Illustrative example of the wave effect in supply models

Typical supply model assumes oversupply in the coming year



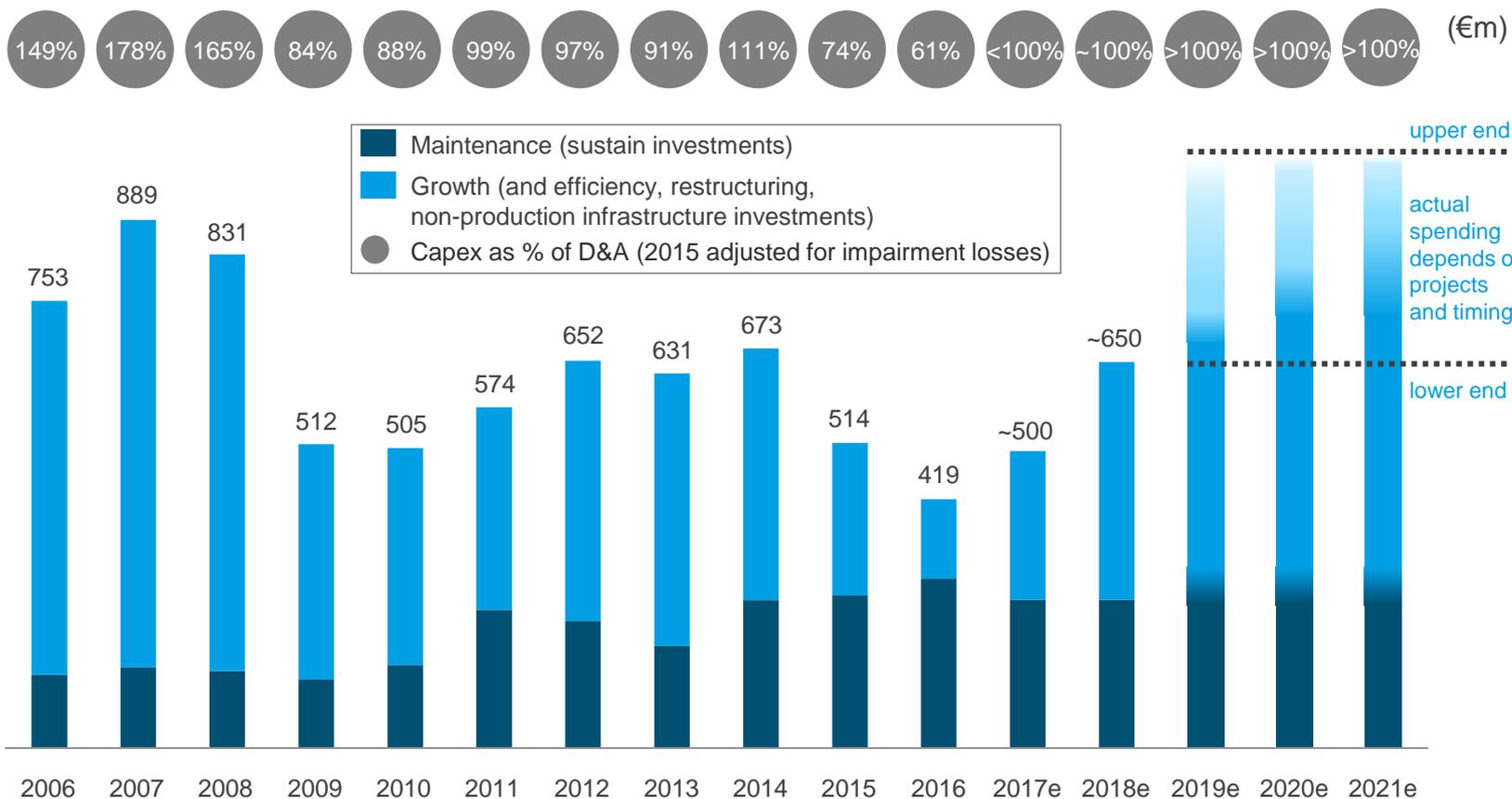
- Supply models are usually based on public information
- Delays and / or cancellations are commonly not announced by companies or publically available
- In models, delayed capacities are moved to the next year, thus add up and create an unreal, inflated level of supply additions in the following years

# 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

### 2017e to 2021e

- Accompany industry growth by adding capacity through smart capex approach

### 2022e and beyond

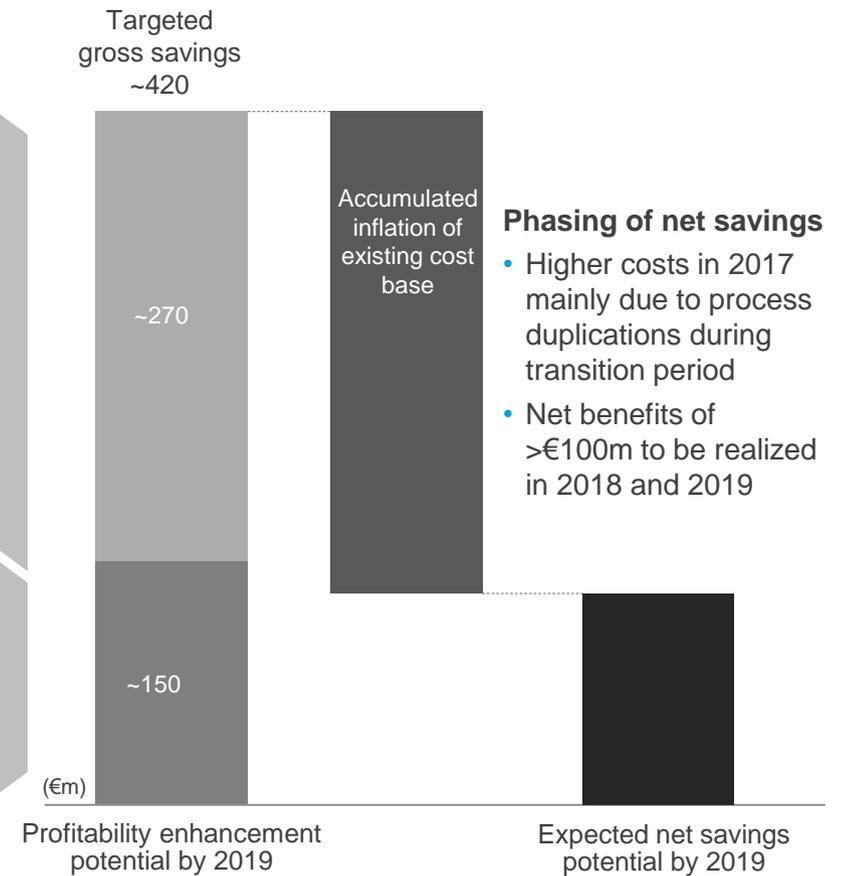
- New growth investments lead to capacity expansions
- Strengthen leading industry positions

# Savings potential: structured profitability enhancement program



Net saving expected to start ramping up in 2018

Key Measures		Status
Asset optimization plan	Facility and asset management cost improvements	ongoing
	Asset restructuring / efficiency projects	executed executed executed
	Continuous improvement	ongoing
Cost improvement measures	Corporate overhead cost savings	initiated
	BU-level specific savings	ongoing
	Continuous improvement	ongoing



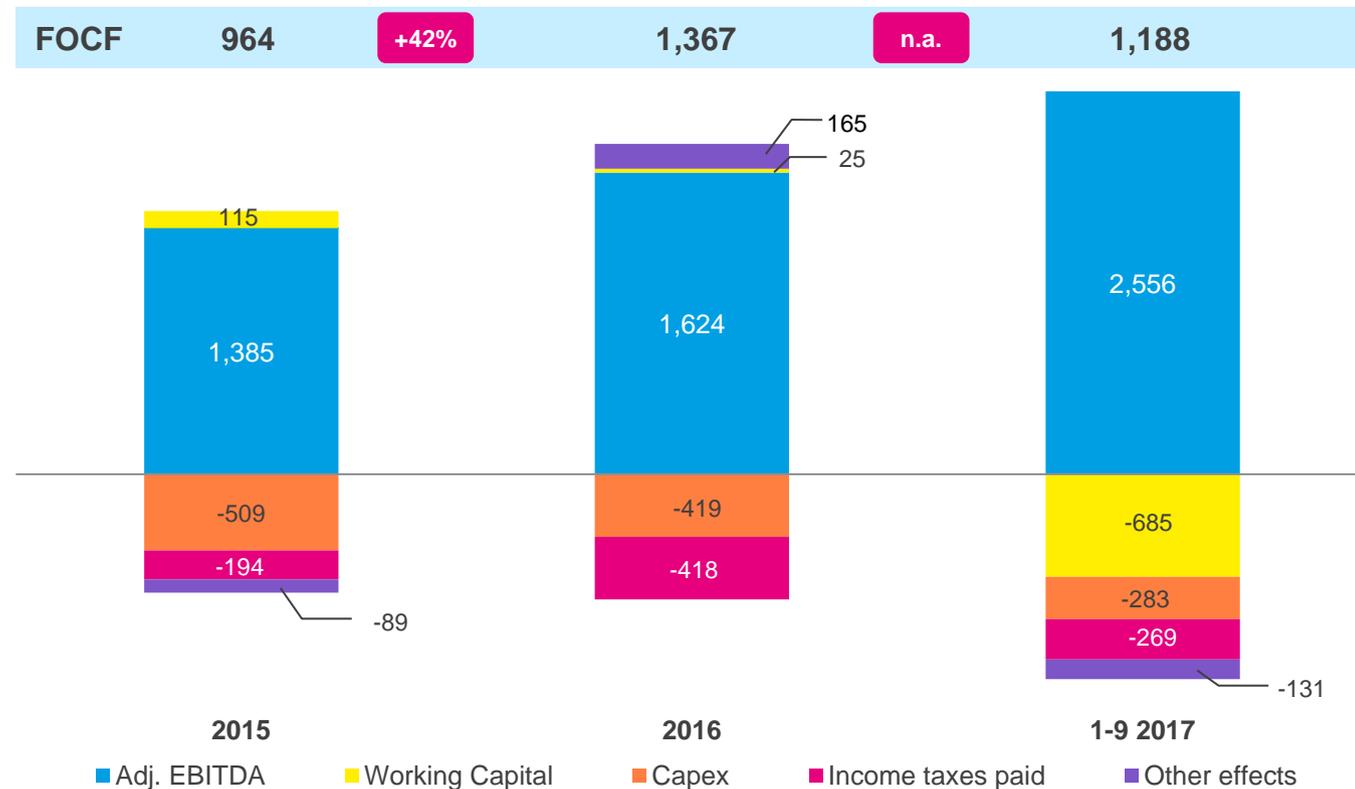
# 2015, 2016, 9M 2017 – High EBITDA to FOCF conversion rate



Continued strong FOCF generation

## Free operating cash flow development

in € million



## 9M 2017 - Highlights

- Working capital to sales ratio\* at 17.6%, close to the targeted range of 15-17%
- Capex of €283m, among others for the MDI expansion in Brunsbüttel
- Still low cash tax rate of 13.7% due to phasing of tax payments
- Other effects include the release of provisions for bonus payments

\* Method of calculation: WC on 30.09.2017 divided by sales of last four quarters

# Commitment to deliver €5bn cumulative FOCF in next 5 years

Use of free cash flow: value creation and cash return to shareholders

Under review



### Dividend policy

UNCHANGED

### Portfolio

UNCHANGED

### Return to shareholders

UPDATE

- Focus on increasing or at least stable dividends
- FY 2016 dividend of €1.35 per share represents a dividend yield of 2.1% (year end DY)

- Disciplined & focused approach
- Bolt-on acquisitions to boost R&D and business development
- Focus on high margin, differentiated business areas and continuous portfolio optimization

- Share buy-back for up to €1.5bn\*
- Commitment to return further excess cash to shareholders

\*either up to €1.5bn or up to 10% of stock capital, whichever is reached first

# 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 starting in Q4 2017**  
via share buy-back of up to €1.5bn or up to 10% of share capital
- 5 Attractive dividend policy**  
with focus on increasing or at least stable dividends going forward



# Financial Highlights

## Q3 2017

# Key Highlights

Raising the bar



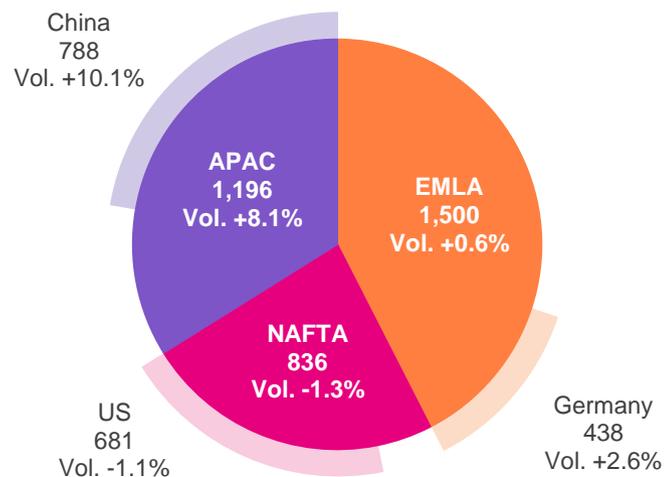
# Q3 2017 & 9M 2017 – Sales per Region



Solid core volume growth in all regions in 9M 2017

## Solid growth in Q3 2017

in € million /  
Core volume  
growth Y/Y

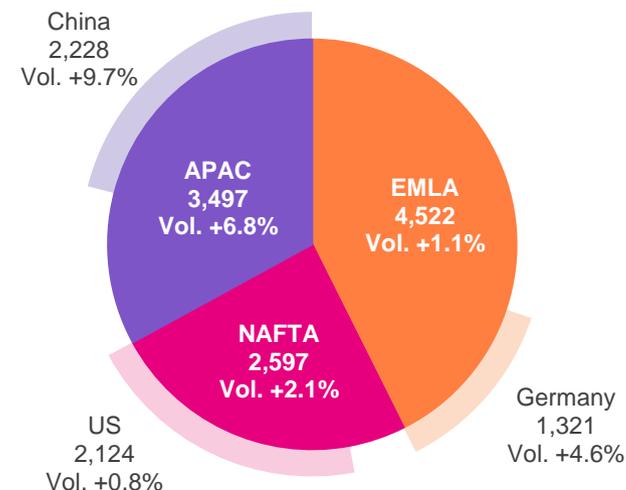


## Q3 2017 Highlights

- Core volume growth of 2.6% Y/Y despite negative external factors
- US and NAFTA impacted by force majeure (Hurricane Harvey)
- Double-digit core volume growth in China
- Core volume growth broad-based across customer industries

## Solid growth in 9M 2017

in € million /  
Core volume  
growth Y/Y



## 9M 2017 Highlights

- Solid core volume growth of 3.2% Y/Y
- Core volume growth broad-based across regions and industries
- Strong core volume growth in automotive and electronics
- Double-digit core volume growth in medical & diverse industries

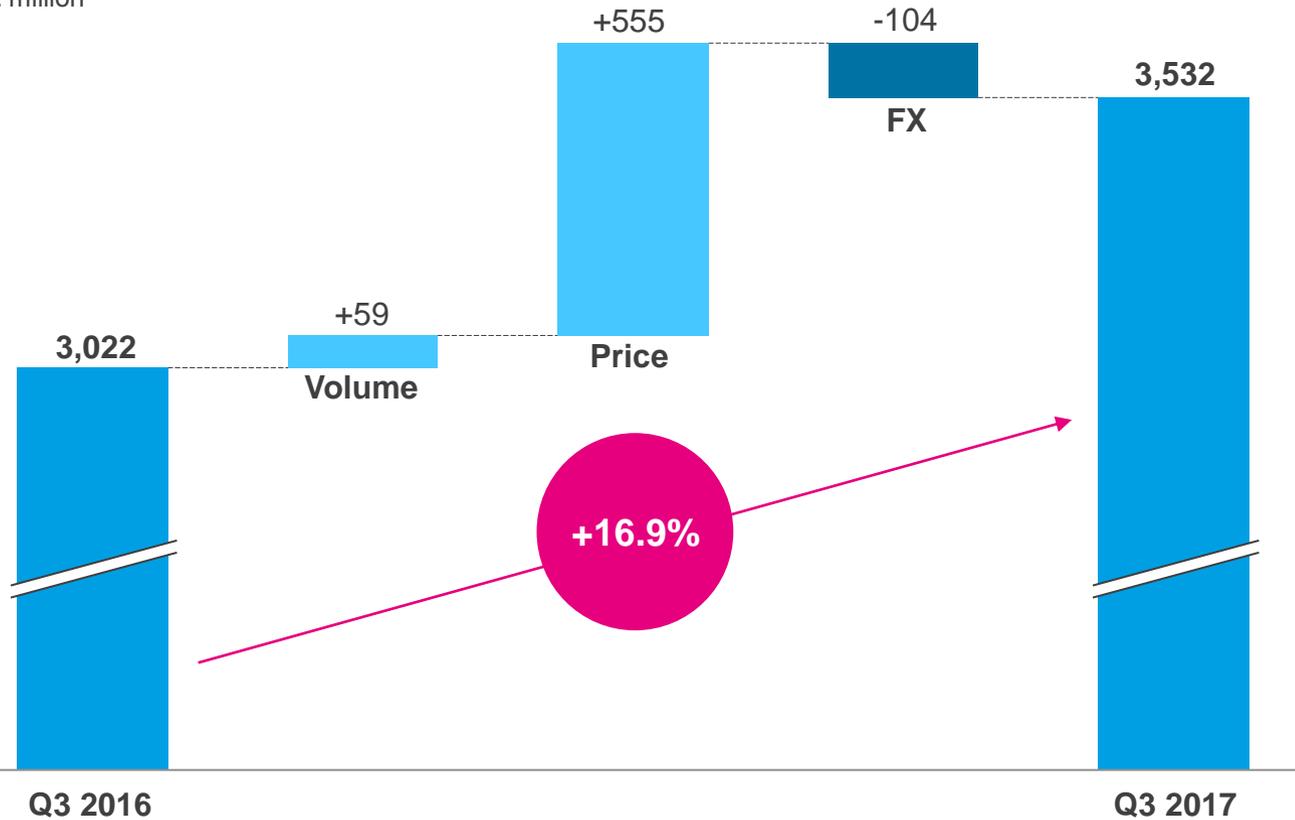
# Q3 2017 – Sales Bridge

Solid volume growth and strong pricing



## Sales Bridge

in € million



## Highlights

### Strong pricing and higher industry utilization

- Higher selling prices positively impacted sales by 18.4% Y/Y
- Solid increase in volumes of 2.0% Y/Y, yet constrained by negative external factors

### Negative FX impact

- FX effects burdened sales by 3.5% Y/Y mainly due to weaker CNY and USD

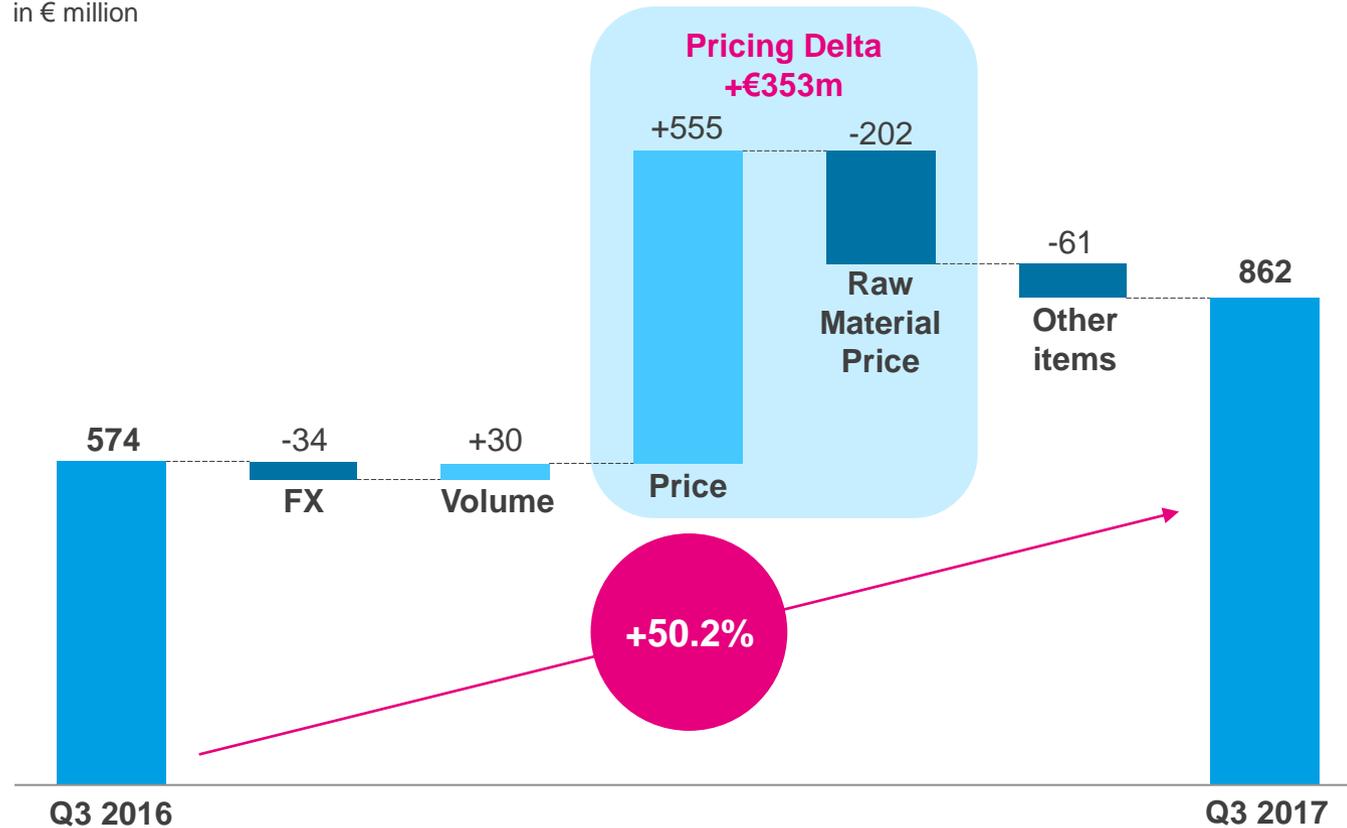
# Q3 2017 – EBITDA Bridge

Expanded pricing delta



## EBITDA Bridge

in € million



## Highlights

### Improving cash margin

- Positive pricing delta driven by TDI & MDI
- Selling price increases could more than compensate for higher raw material prices

### Strong volume leverage

- Above 50% (EBITDA volume/Sales volume)

### Slight FX headwind

- First quarter with change from tail- to headwind

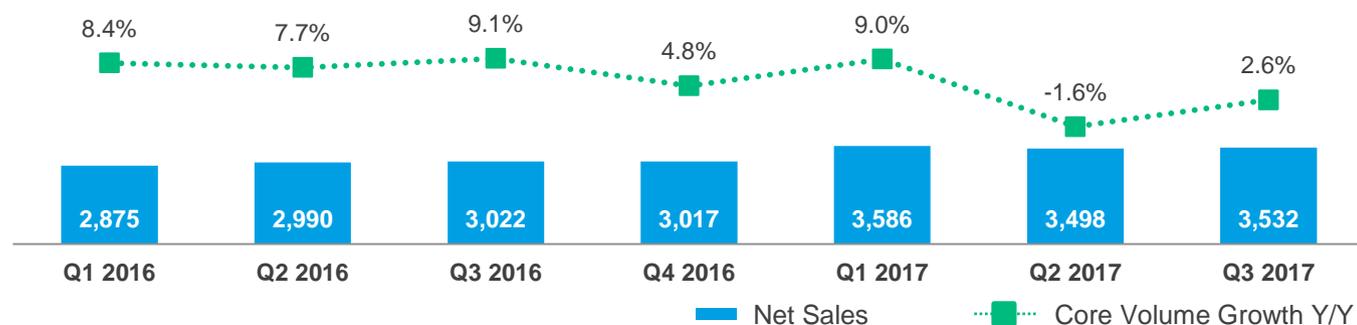
# Q3 2017 – Group Results

## Continued margin expansion



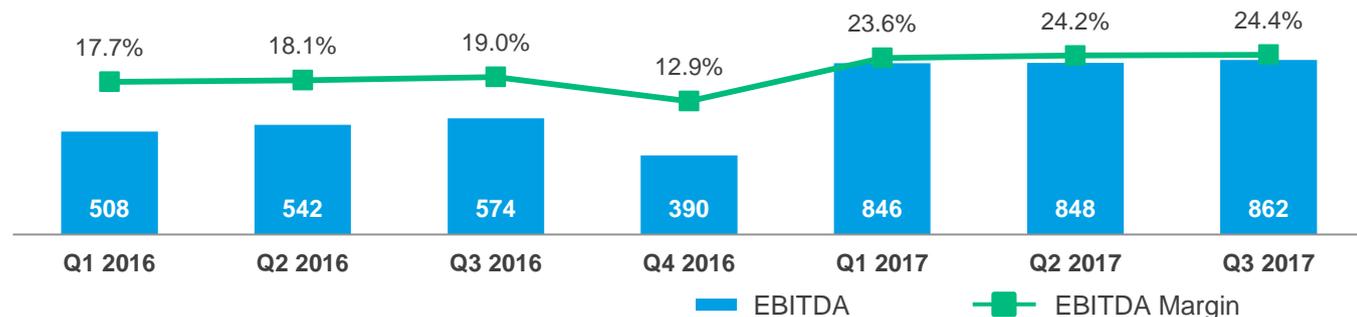
### Net Sales and Core Volume Growth

in € million / changes Y/Y



### EBITDA and Margin

in € million / margin in percent



### Highlights

- Solid core volume growth (in kt) of 3.2% in 9M 2017, across regions and industries
- Solid core volume growth of 2.6% in Q3 despite negative impact of external factors
- Sales increased by 16.9% Y/Y in Q3 2017 mainly driven by higher prices

### Q3 2017 Highlights

- EBITDA margin improved significantly to 24.4% vs. 19.0% in Q3 2016
- Excluding TDI fly-up, margin increased from 20% in Q1 2017 to 21% in Q3 2017
- 11<sup>th</sup> consecutive quarter with Y/Y EBITDA increase

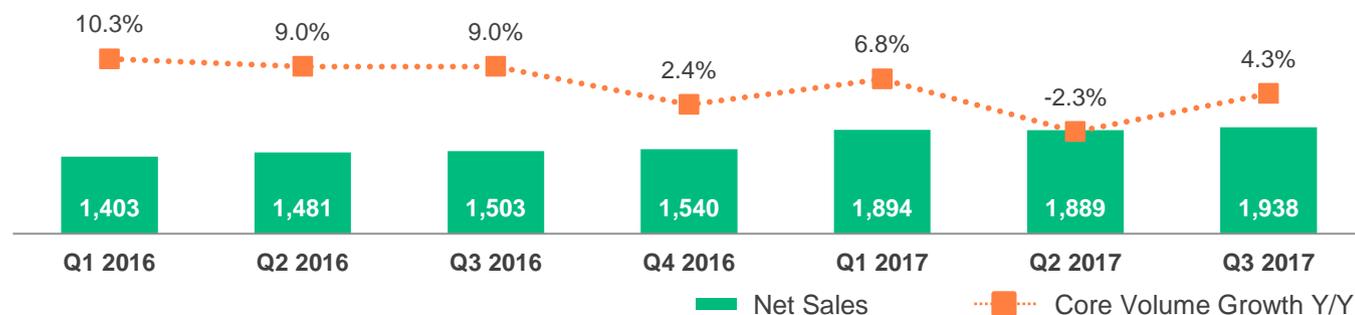
# Q3 2017 – PUR Segment Results

Polyurethanes – Structurally improving margins in MDI



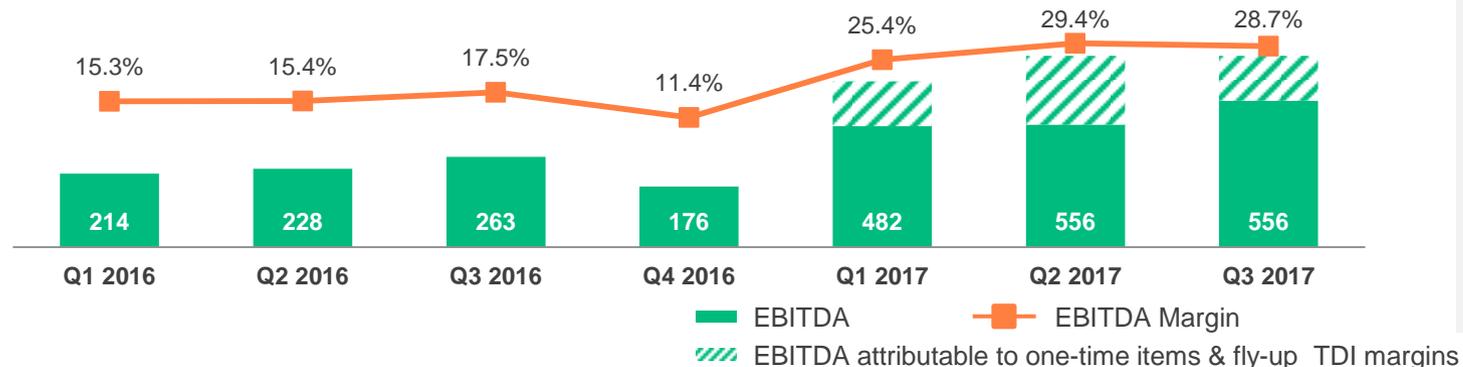
## Net Sales and Core Volume Growth

in € million / changes Y/Y



## EBITDA and Margin

in € million / margin in percent



## Highlights

- Solid core volume growth of 2.8% Y/Y in 9M 2017 despite negative external factors
- Solid core volume growth of 4.3% Y/Y in Q3
- Selling prices increased by 29.7% Y/Y in Q3

## Q3 2017 Highlights

- EBITDA increased by 111.4% Y/Y with a margin of 28.7% vs. 17.5% in Q3 2016
- Underlying EBITDA margin (excluding fly-up benefits in TDI) expanded to 22% driven by volume leverage and structural growth in MDI

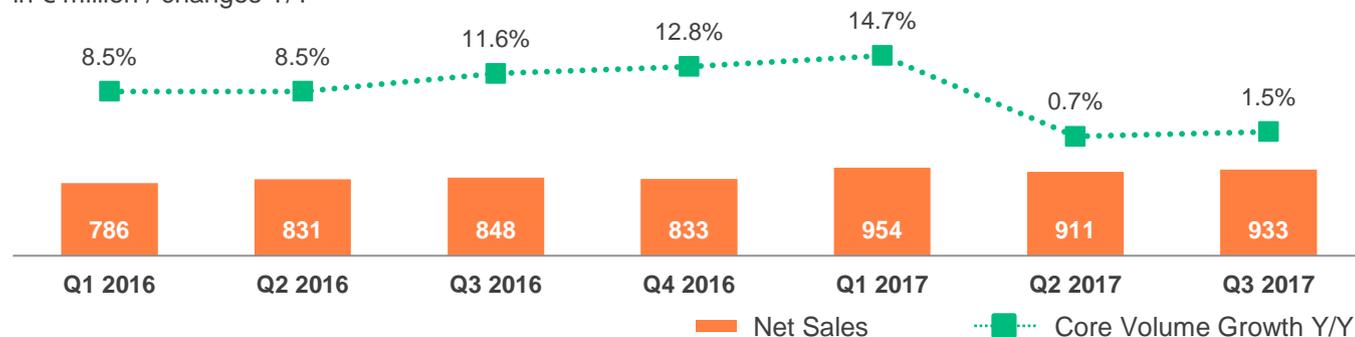
# Q3 2017 – PCS Segment Results

Polycarbonates – Steady high margin business



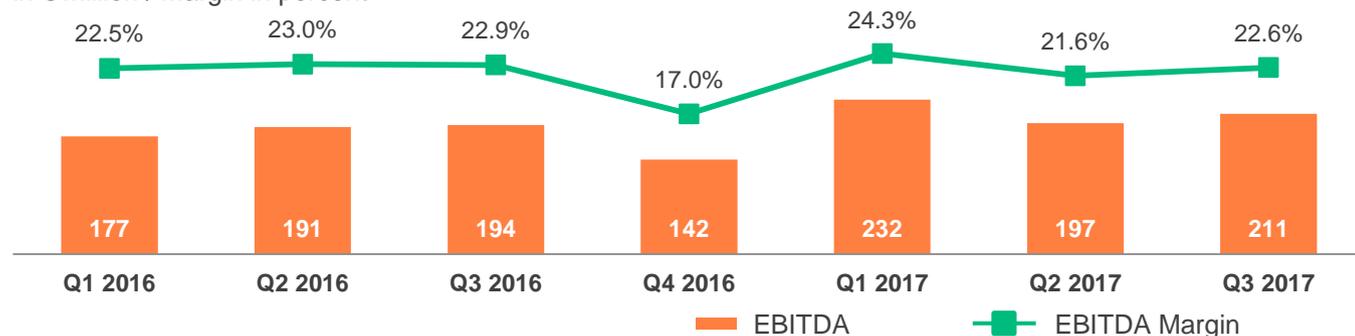
## Net Sales and Core Volume Growth

in € million / changes Y/Y



## EBITDA and Margin

in € million / margin in percent



## Highlights

- Solid core volume growth of 5.4% Y/Y in 9M 2017
- Core volumes stable with 1.5% Y/Y in Q3 2017 due to constrained product availability
- Sales increase by 10.0% Y/Y in Q3 2017, driven by volumes and prices

## Q3 2017 Highlights

- EBITDA increased by 8.8% Y/Y due to product mix improvements
- Price increases balanced out negative raw material impact

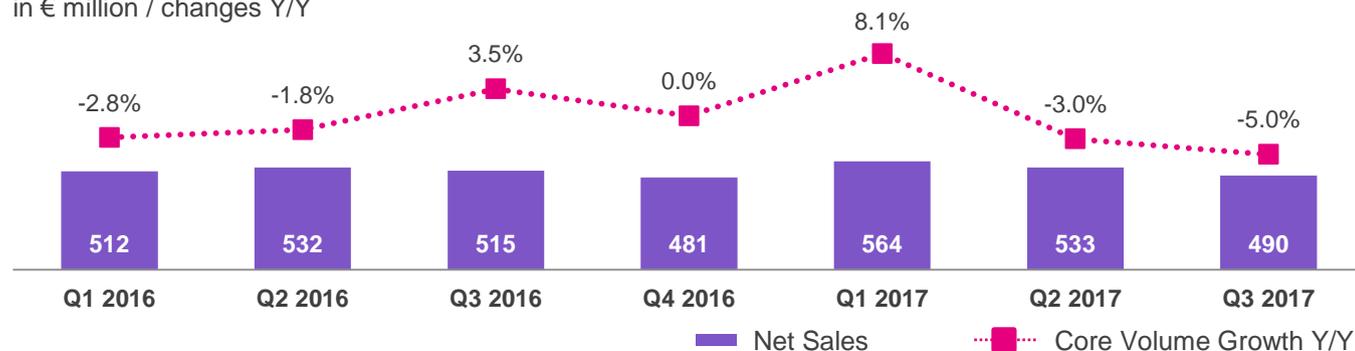
# Q3 2017 – CAS Segment Results



Coatings, Adhesives, Specialties – Quarter affected by destocking and force majeure

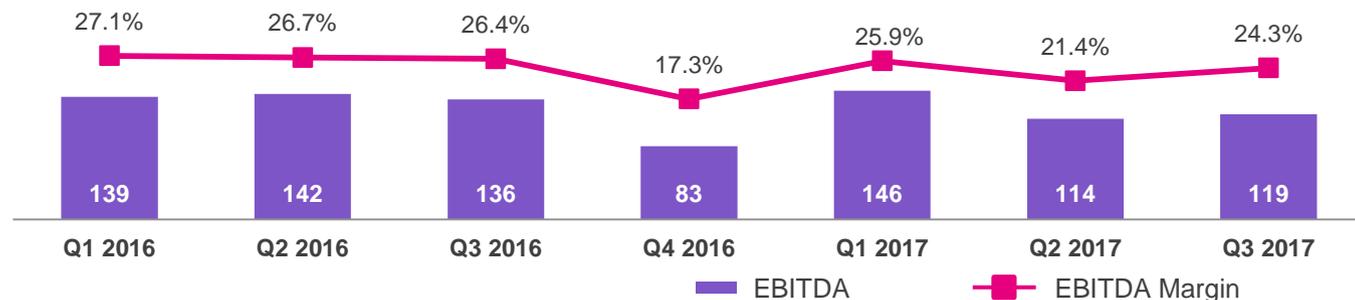
## Net Sales and Core Volume Growth

in € million / changes Y/Y



## EBITDA and Margin

in € million / margin in percent



## Highlights

- Stable core volumes in 9M 2017
- Core volumes decreased by 5.0% Y/Y in Q3 due to destocking and force majeure in US
- Higher selling prices positively impacted sales by 3.8% Y/Y in Q3 2017

## Q3 2017 Highlights

- EBITDA decreased by 12.5% Y/Y due to lower sales volumes
- Margin increased Q/Q due to price increases

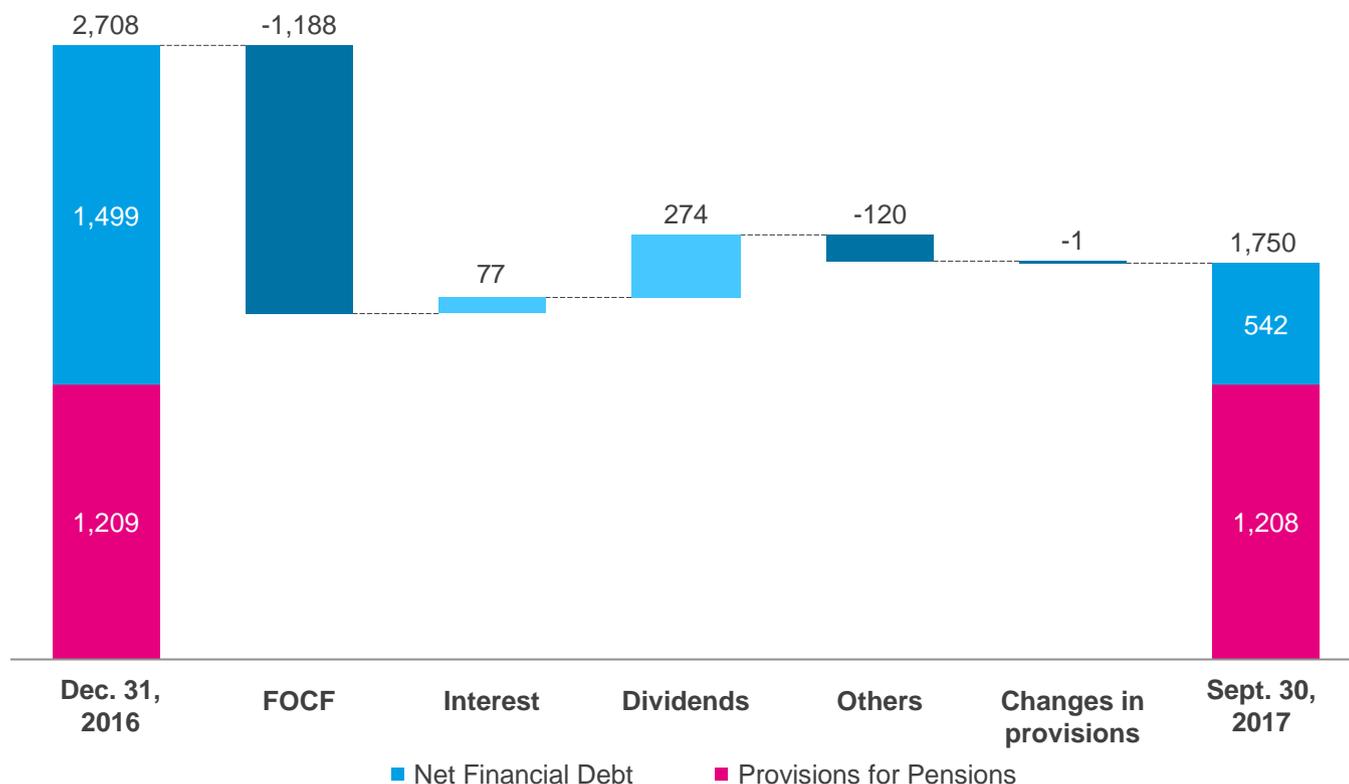
# September 30, 2017 – Robust balance sheet

Net financial debt reduction of €1bn YTD



## Total net debt

in € million



## Highlights

- Total net debt to EBITDA ratio\* further reduced to 0.6x
- Strong decrease of net financial debt by €957m to €542m
- Pension provisions remained stable at €1,208m
- Equity ratio further improved to 47%
- Long-term commitment to a solid investment grade rating, since IPO “Baa2” by Moody’s

\* Method of calculation: Total net debt on 30.09.2017 divided by EBITDA of last four quarters

# Guidance 2017

## Confirmation of strong outlook for FY 2017



	FY 2016	Guidance FY 2017*	1-9 2017
Core Volume Growth	+7.5%	Low- to mid-single-digit percentage increase Y/Y	+3.2%
FOCF	Ø 2014-2016: €881m	Significantly above the average of the last three years	€1,188m
ROCE	14.2%	Significantly above the 2016 level	n.a.
Additional financial expectations	FY 2016	Guidance FY 2017*	1-9 2017
EBITDA 2017 FY	€2,014m	Significantly above 2016	€2,556m
EBITDA 2017 Q4	Q4: €390m	Significantly above Q4 2016	n.a.
D&A	€683m	~€650m	€476m
Financial results	€-196m	~€-160m	€-123m
Effective tax rate	29.0%	~28%	26.0%
Capex	€419m	~€500m	€283m

\*\*Basic Assumptions: Exchange rate of USD/EUR ~1.10 and a similar macroeconomic environment as in 2016

# Upcoming IR Events

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



## Reporting dates

- |                     |                             |
|---------------------|-----------------------------|
| • February 20, 2018 | Q4 & FY 2017 Annual Report  |
| • April 26, 2018    | Q1 2018 Quarterly Statement |
| • July 26, 2018     | Q2 2018 Interim Report      |

## Annual General Meeting

- |                  |                              |
|------------------|------------------------------|
| • April 13, 2018 | Annual General Meeting, Bonn |
|------------------|------------------------------|

## Broker conferences

- |                     |  |
|---------------------|--|
| • November 14, 2017 | UBS, European Conference 2017, London                                |
| • November 14, 2017 | Morgan Stanley, Global Chemicals and Agriculture Conference, Boston  |
| • November 22, 2017 | Exane BNP Paribas, SRI Forum, Paris                                  |
| • November 30, 2017 | Société Générale, The Premium Review 2017, Paris                     |
| • December 5, 2017  | Bank of America Merrill Lynch, European Chemicals Conference, London |
| • December 7, 2017  | Berenberg, European Conference 2017, London                          |
| • December 14, 2017 | Citi, 11 <sup>th</sup> Annual Benelux Symposium 2017, Amsterdam      |



# Disclaimer

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