

# Managing challenging times

Roadshow presentation

covestro.com





- **Covestro investment highlights**
- Group financials FY'22
- Segment overview

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Background information

# Covestro is diversified across geographies and end-markets



Key performance indicators and sales split



Sales 2022



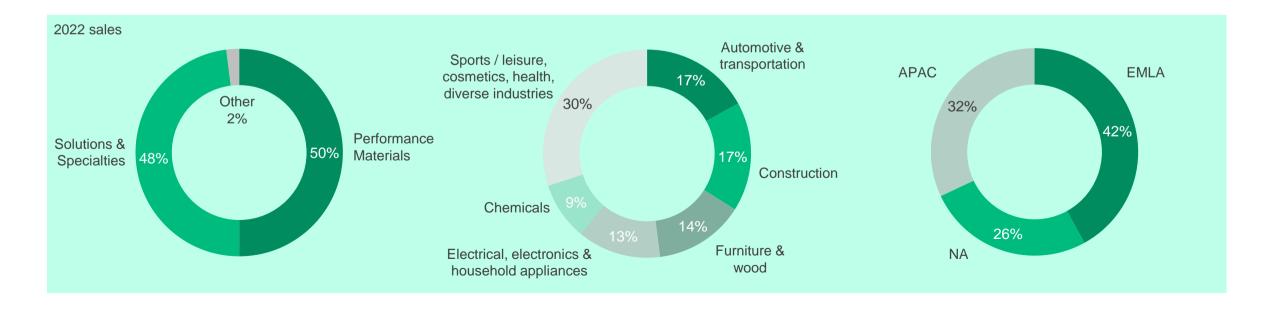
**EBITDA** 2022



**FOCF** 2022



**ROCE** above WACC 2022

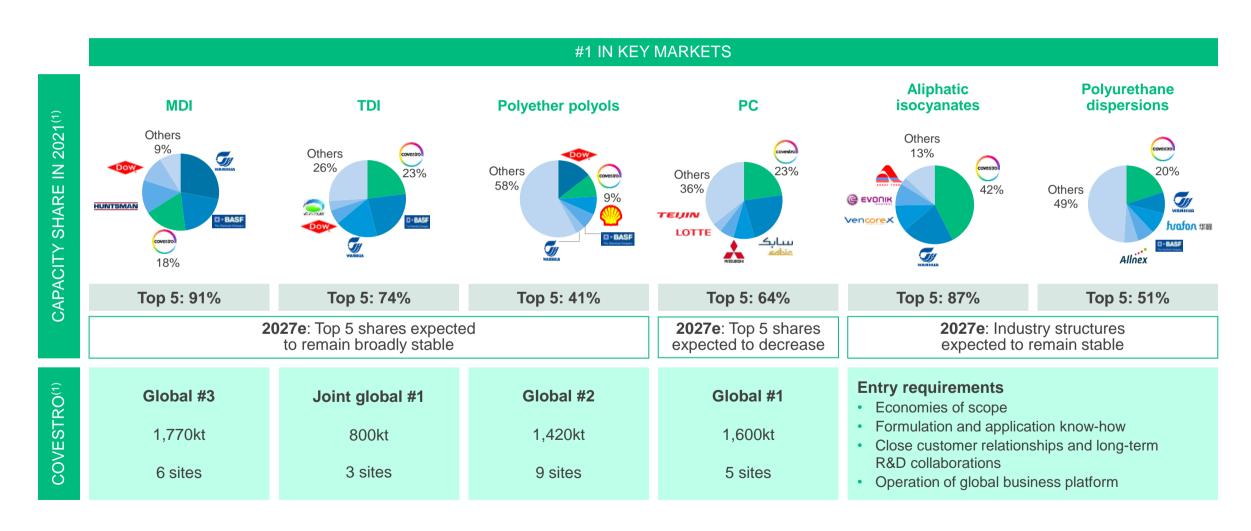


# Covestro is a global leader across its entire portfolio

Notes: Source:

# World-wide industry positions and production capacities





# Our strategy – setting the path for tomorrow





# **BECOME THE BEST** OF WHO WE ARE

Transform the company to exploit its full potential



# DRIVE SUSTAINABLE

in a profitable way

**ADVANCE DIGITALIZATION** 

# **GROWTH**

Address sustainability

**EXPAND 'WE ARE 1' CULTURE** 

### **MILESTONE**

LEAP transformation ongoing

### **MILESTONE**

Integration of RFM accomplished



# **BECOME FULLY CIRCULAR**



Accelerate the transition to a fossil-free economy

### **MILESTONE**

Target climate neutrality in 2035

# Climate neutrality with existing technologies and assets

# Covestro greenhouse gas emissions





### **EXISTING OPTIONS AND CURRENT LIMITATIONS TO REDUCE GHG EMISSIONS**

Selective examples only



Various alternative feedstock

Limitations: available capacities



Low-emission mobility

Limitations: available infrastructure



Low-emission mobility

Limitations: available infrastructure



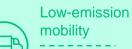
Renewable energies

Limitations: available capacities



Low-emission technologies

Limitations: investments and installations



Limitations: available infrastructure



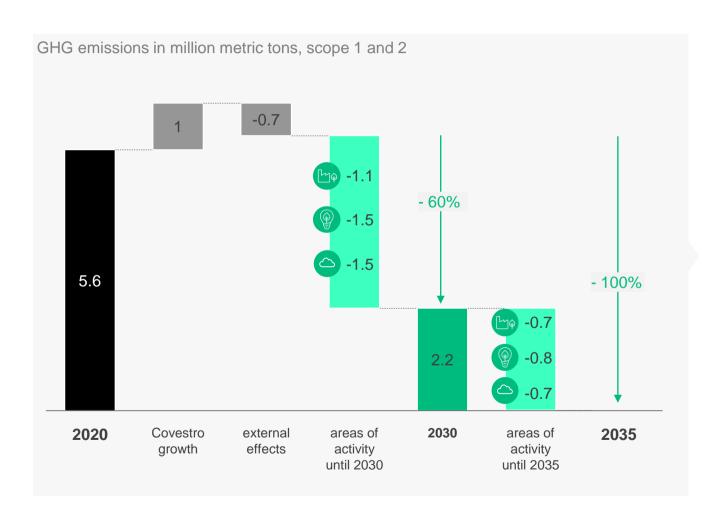
Circular end-of-life solutions

Limitations: readiness of technologies

# Sustainable manufacturing and renewable energy to lead path



# Climate neutrality target for GHG emissions scope 1 and 2



### **EMISSION REDUCTION MEASURES**

- Three main levers make a vital contribution to reduce GHG emissions:
  - More sustainable manufacturing (scope 1 and 2)
  - Renewable electricity (scope 2)
  - Renewable steam (scope 2)
- Net external effects comprise known future changes in the energy mix of public grids (e.g. nuclear exit in Germany and Belgium) and in public energy allocation schemes (e.g. EEG in Germany)
- Roadmap for 2030 interim target based on identified 'lighthouse projects'
- Further roadmap until 2035 climate neutrality target in preparation based on similar key measures; no negative impact from business growth as future growth investment are required to support climate neutral growth latest by 2030

# Numerous measures effectively reduce GHG emissions

# Climate neutrality target for GHG emissions scope 1 and 2





### MORE SUSTAINABLE MANUFACTURING



Reducing nitrous oxide emissions by installation of highly efficient catalysts



Optimizing production processes to increase energy efficiency



Employing digital technologies for efficient production control



### RENEWABLE ELECTRICITY



Onshore wind energy, PPA with ENGIE since 2021 for 45% of site's electricity in Antwerp



Offshore wind energy, PPA with Ørsted starting 2025 for 10% of sites' electricity in Germany



Solar&wind energy, PPAs for ~45% of Shanghai site electricity with Datang Power&CGN New Energy



### **RENEWABLE STEAM**



Converting steam generation from fossil to renewable energy sources



Develop options to electrify steam generation based on renewable energies



Develop options to use e.g. biogas or green hydrogen as energy source to generate steam

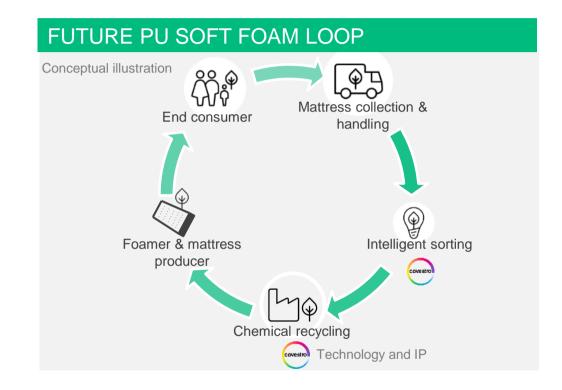
# Re-shaping the PU value chain for soft foams into a closed loop



# Innovative recycling / joint solutions

### **COVESTRO TECHNOLOGY**

- Chemical recycling of polyurethane (PU) mattress foams
- Proprietary process for recycling both PU components polyol and TDA, enabling 100% recycling of these components for soft foam
- New brand label to support our customers to guicky identify circular solutions - Evocycle® CQ Mattress (circular intelligence)
- Significant improvement of CO2 footprint compared to fossil route (lifecycle assessment), meeting high customer and consumer demand
- Intelligent sorting solution to efficiently separate different PU foams from post-consumer mattresses



Timeline:



2021

interzero

écomobilier

2023

2025 Lab-scale customer

Pyp

2030s

**Technology** optimization **Pilot Plant** 

Cooperation on innovative recycling of plastic waste

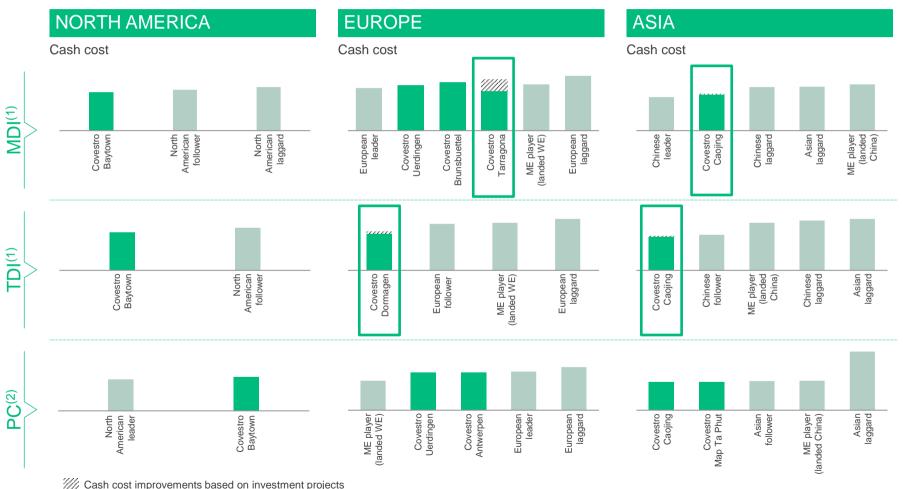
samples(\*)

**Technology** industrialization(\*)

# Leading cost positions across markets and regions

# Covestro cash cost positions





Notes:

- Covestro MDI is one of the low-cost producers.
   Investment in Tarragona plant will significantly further improve cost position. MDI industry with cost advantage of ~20% between the best and the average 5 least competitive plants
- Covestro TDI is the global cost leader with cost advantage of ~45% versus the average of 5 least competitive plants
- Covestro Polycarbonates
   is one of the joint cost
   leaders with cost advantage
   of ~60% versus the average
   of 5 least competitive plants

improvements based on investment projects

<sup>(1)</sup> Cost of production based on total raw material costs less co-product credits, variable and fixed conversion costs at 100% utilization based on nameplate capacity for FY 2021

<sup>(2)</sup> FY 2021 Cash cost ex gate, 70% utilization rate for all plants based on nameplate capacity; integrated players are shown without contribution margins for BPA, phenol, acetone etc.

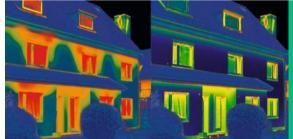
# Covestro supports future sustainable growth

# Long term product trends



### **APPLICATIONS**







### **INDUSTRY TRENDS**

### Electric vehicles pushing

- Battery Electric Vehicles to use 2 up to 5 times(1) more polycarbonates than conventional vehicles
- Trend to continue or accelerate for future BEV generations and increase in demand up to 1 Mio to<sup>(1)</sup> in PC grades from 2022-2026

### **Thermal Insulation**

- Polyurethane-based insulation one of the best options to reach future high energy efficiency standards
- Demand increase of PU used in construction for future highenergy efficient buildings could increase global MDI growth rates by 1pp per year<sup>(2)</sup>

### Wind energy

- Covestro polyurethane infusion resin contributes to 8% reduction (3) in wind blade manufacturing cost and is expected to take ~10% market share of the wind resin market dominated by epoxy resins until 2032
- Our overall wind solutions for blades will result in 30% lower maintenance and 2-year life-time extension (3)

**COVESTRO BENEFIT** 

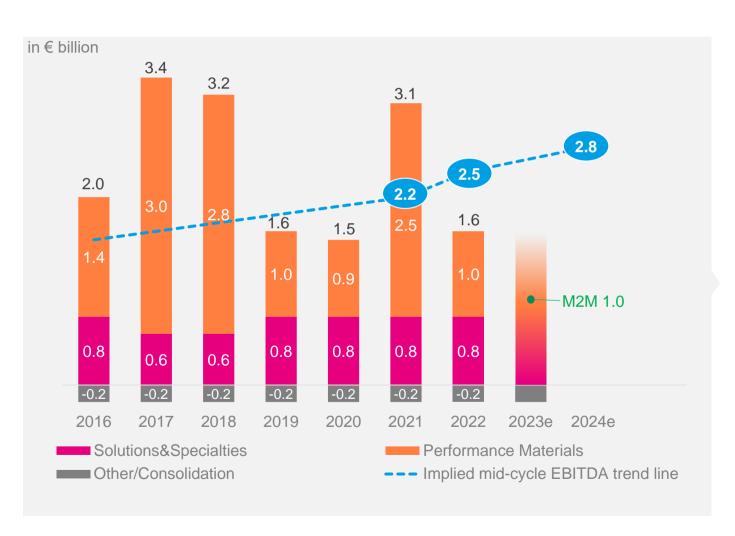
Favourable mid to long term outlook for product portfolio of Covestro

(3) Covestro estimate

# Mid-cycle EBITDA of €2.8bn in 2024

# EBITDA development between 2016 and 2024e





### **HIGHLIGHTS**

### Mid-cycle EBITDA:

- Mid-cycle definition: Respective year's EBITDA performance under average market conditions
- Strong increase from €2.2bn to €2.5bn in 2022 realized from EBITDA impact of RFM acquisition
- Confirming mid-cycle EBITDA of €2.8bn in 2024

### EBITDA in FY 2023e:

- Covestro EBITDA expected significantly below FY 2022
- Performance Materials EBITDA expected significantly below FY 2022
- Solutions & Specialties EBITDA expected around FY 2022

### Mark-to-market (M2M):

 Mark-to-market (M2M) EBITDA in FY 2023 of ~€1.0bn based on January 2023 margins

# Outlook reflecting current economic climate

# Full year guidance 2023



	FY 2022	Guidance FY 2023	
EBITDA thereof Solutions & Specialties	€1,617m <i>€825m</i>	significantly <sup>(4)</sup> below previous year around <sup>(4)</sup> previous year	
FOCF thereof Solutions & Specialties	€138m <i>€195m</i>	significantly <sup>(4)</sup> below previous year significantly <sup>(4)</sup> above previous year	
ROCE above WACC <sup>(1)</sup>	-5.0 pp	significantly <sup>(4)</sup> below previous year	
GHG emissions (scope 1 and 2)	4.7m tons	around <sup>(4)</sup> previous year	

### **Additional financial expectations**

EBITDA Q1	€806m	€100 to 150m
D&A	€1,350	~€850m
Financial result	€-137m	€-160 to -200m
Capex <sup>(2)</sup>	€832m	~€800m

### **HIGHLIGHTS**

### 2023 FX assumptions

- €/USD around 1.05 level
- 1pp change equals
   +/- €8m for CNY/FUR
  - +/- €8m for CNY/EUR +/- €4m for USD/EUR
- Mark-to-market

 Mark-to-market (M2M) EBITDA in FY 2023 of €1.0bn based on January 2023 margins flat forward

### **GHG** emissions

 0.4m tons increase in GHG emission by external factors neutralized by 0.4m tons savings through our CO<sub>2</sub> reductions measures

### P&L tax rate

 Long-term tax rate estimated between 24-26%<sup>(3)</sup>

<sup>(1)</sup> Weighted average cost of capital (WACC): 7.0% in FY 2022 and 7.6% in FY 2023e

<sup>(2)</sup> Cash-relevant capex

 <sup>(3)</sup> Covestro estimate
 (4) Definitions: significantly = double-digit percentage / around = single-digit percentage deviation

# Global demand outlook remains weak

# Global demand development

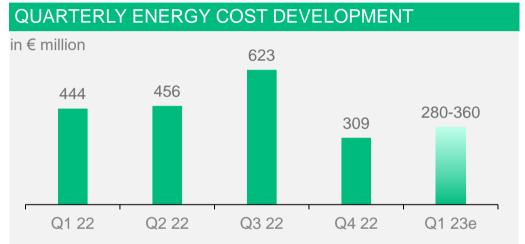


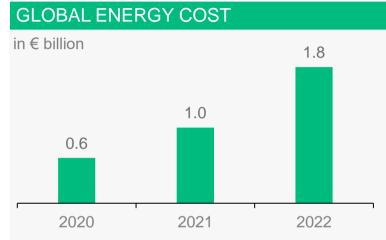
KEY CUSTOMER INDUSTRIES		2020 Y/Y	2021 Y/Y	2022 Y/Y <sup>(1)</sup>	2023e Y/Y <sup>(2)</sup>
Global GDP		-3.5%	+6.1%	+3.1%	+1.5%
Automotive EV / BEV		-15.9% +29.2%	+3.0% +105.9%	+6.9% +69.8%	+4.6% +42.5%
Construction Residential		-1.8% -1.0%	+3.5% +4.5%	+1.2% +0.8%	+0.8%
Furniture Soft furniture		-4.8% -4.4%	<b>+8.8%</b> +8.2%	-3.6% -5.2%	+0.3% +0.2%
Electrical, electronics and household appliances  Appliances	HH	+4.5% +2.4%	+16.6% +9.2%	+4.9% -1.9%	<b>+2.0%</b> +3.7%

# Global energy prices normalizing after tripling within two years

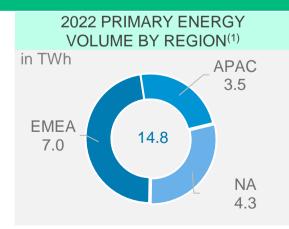
# **Energy cost development**

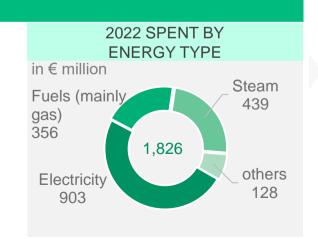






# ENERGY BREAKDOWN 2022 ENERGY SPENT BY REGION in € million APAC 241 1,826 NA 168





- Global energy bill in 2022 of €1.8bn
- Q4 2022 with reduced cost mainly attributable to lower production volumes in Europe
- Q1 2023 outlook with slight increase vs Q4 due to higher volumes and start up of Tarragona chlorine plant
- In general, Covestro does not hedge its energy purchases
- Energy demand FY2022 reduced by ~7% vs FY2021

# European major sites locations

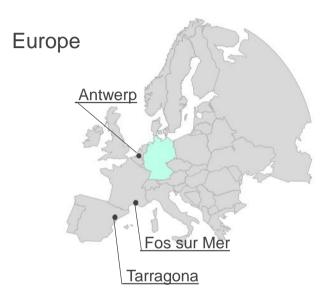
# **Asset footprint**

% of capacity

31%

Polyol





**EUROPEAN/GERMAN PLANT SHARE** 

MDI



### **HIGHLIGHTS**

- Covestro runs multiple large production sites for its core products in Europe
- Covestro sites in Germany represent ~25% of global Covestro production capacity in Covestro core products
- Covestro plants have at all times been fully supplied with natural gas

TDI

■ RoW ■ Europe ✓ Germany

15%

67%

PC

# Majority of cash allocated to growth

### Balanced use of cash



### **CAPEX**



- Covestro's industry and cost leadership make growth investment the most valuecreating use of cash
- Capex above D&A during the next five years
- Maintenance capex to secure safe, reliable and efficient operations

€4.9bn invested in capex

### **DIVIDEND**



Policy: 35-55% payout of net income

€2.3bn dividends

# PORTFOLIO



- Acquisition of DSM's Resins and Functional Material (RFM) business for EV
   €1.55bn with attractive high margins (~€0.9bn sales)
- Less attractive low-margin businesses divested (~€0.6bn sales)
- Further pursue options of value enhancing bolt-on acquisition for Solutions & Specialties segment

€1.5bn net investments

### SHARE CAPITAL



- Share buyback of €1.5bn executed in 2017-2018
- Capital increase of €447m executed in 2020 in context of RFM acquisition
- Authorization for share buyback program for up to 10% of share capital in place
- Share buyback of €0.5bn announced on February 28, 2022, under execution since March 2022

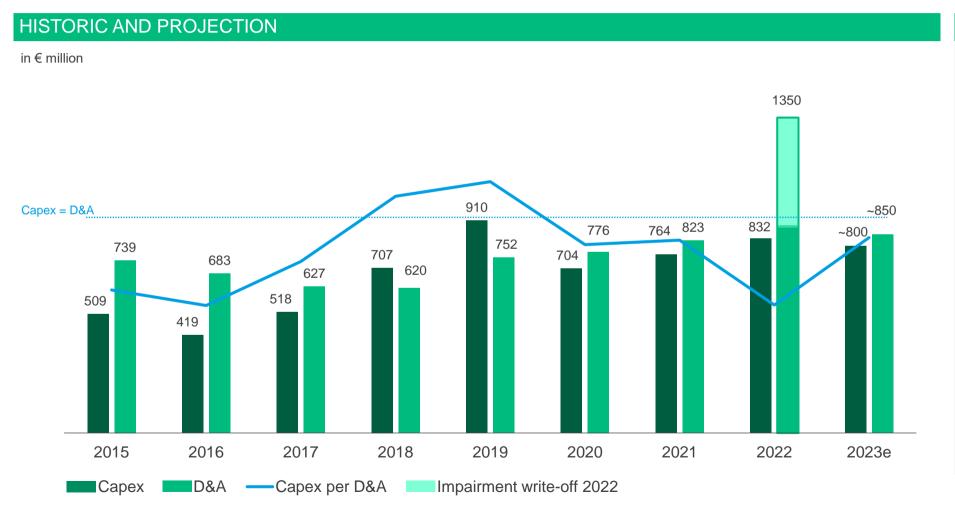
€1.2bn share capital reduced

Sum of FY 2016 to FY 2022

# Significant investments into growth

# Group capex and D&A



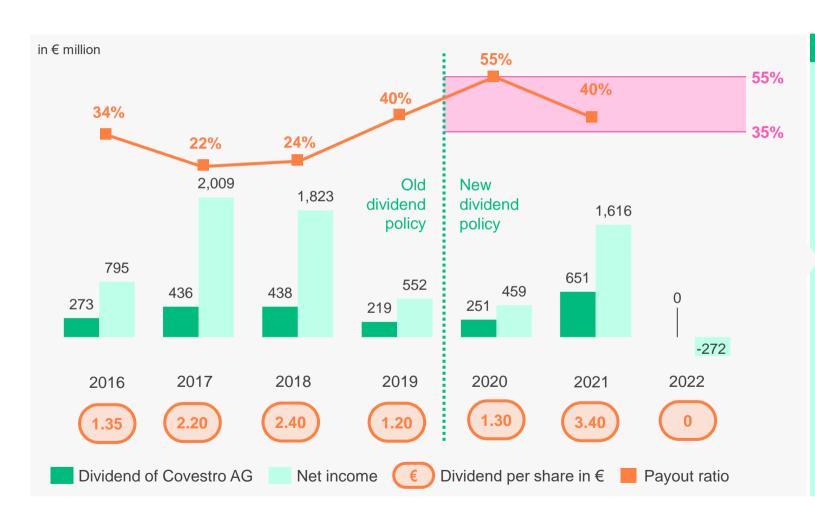


- Growth capex of around €2.8bn from 2015 to 2023e
- D&A 2022 included impairment write-off of €463m
- Maintenance capex around €450m in FY'23e
- Planned investments in Circular Economy projects of almost €1bn between 2021 and 2030

# Dividend based on net income payout ratio

# Dividend development



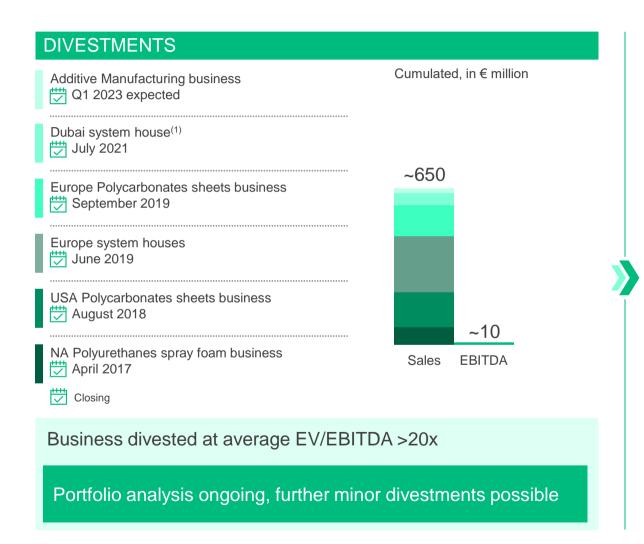


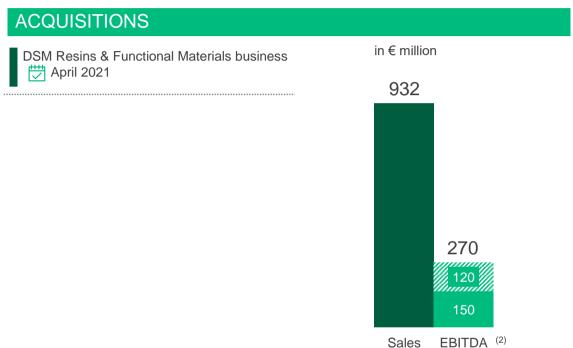
- Net income determining factor for the dividend
- Committed to a payout ratio of 35% to 55%, related to dividend over net income
  - Higher payout intended in years with peak earnings, while ratio towards lower end
  - Lower payout intended in years with trough earnings, while ratio towards upper end
- For FY 2022, dividend suspension proposed in line with negative net income (€-272m) burdened by extraordinary depreciation and by adjustments of deferred tax assets

# Ongoing shift to high-margin business

# Portfolio management







Highly complementary business acquired at EV/EBITDA<sup>(2)</sup> of 6x

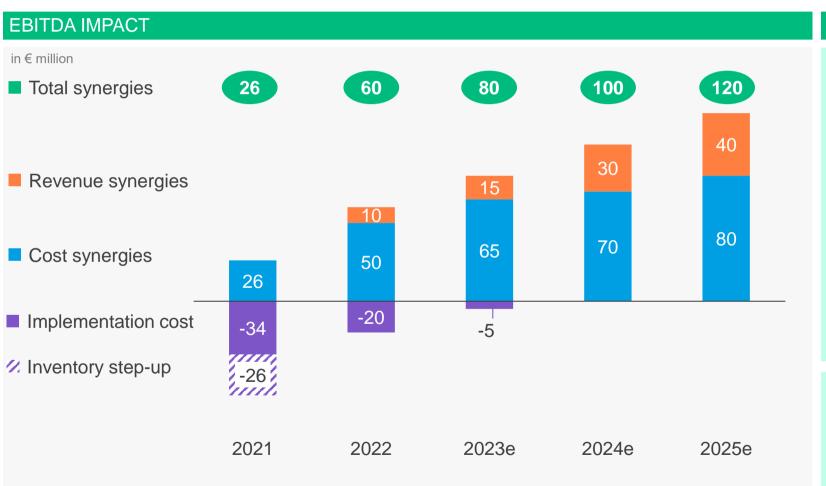
Further pursue value-enhancing bolt-on acquisition options with attractive IRR for Solutions & Specialties segment

Notes:

# Synergies fully confirmed and ahead of plan at lower cost



# RFM synergies and implementation cost



Notes:

### **HIGHLIGHTS**

### **SYNERGIES**

- Confirming identified synergies of €120m or 12% of RFM sales
- Positive EBITDA impact of €80m from cost and €40m from revenues
- Initial synergy potentials successfully detailed and validated
- Realization of synergies ahead of initial plan (initially €10m in 2021 and 50m€ in 2022)
- Implementation cost incl inventory step-up of €85m (initially €155m, reduced from lower severance need)

### **OPERATIONS**

- RFM operational performance fully in line with expectations
- 94% of new employees feel welcome at Covestro

# 30% of share buyback program accomplished





### **PROGRAM**

February 28, 2022

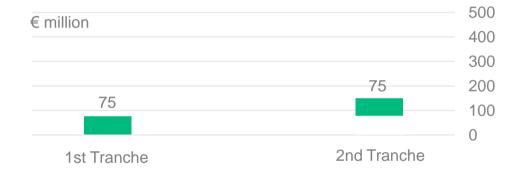
Total volume
€0.5bn

Two-year timeframe

### SHARE BUYBACK TRANCHES

March 21 – April 6, 2022

May 10 – July 23, 2022



### FIRST TRANCHE DETAILS

- 1.606m shares purchased
- Average share price €46.70
- ~15% of share buyback completed

### SECOND TRANCHE DETAILS

- 1.874m shares purchased
- Average share price €39.97
- ~30% of share buyback completed

CONTINUATION / COMPLETION OF SHARE BUYBACK DEPENDING ON ECONOMIC RECOVERY

# Managing challenging times

# Highlights





# Record sales of €18.0bn in FY 2022

driven by price increases despite significant weaker demand and lower volumes



# EBITDA slightly below guidance range for FY 2022

despite recessionary environment and high energy & raw material prices



# FOCF of €138m exceeding guidance of €0-100m

resulting from €550m improved FOCF in Q4



### €801m return to shareholders

comprising dividend payout of €651m and share buyback of €150m



# Increasing share of renewable energy

with 12% of renewable energy in 2022, expected to increase to 16-18% in 2023





- Covestro investment highlights
- **Group financials FY'22**
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# EBITDA decrease Q/Q resulting from demand weakness

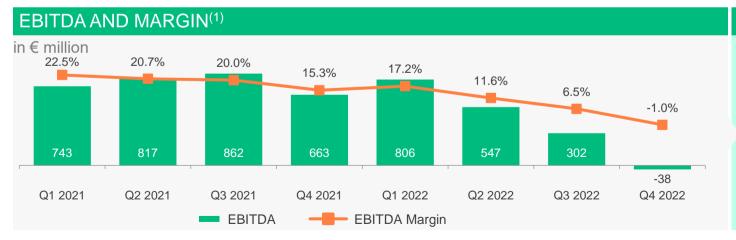


# Group results – Highlights Q4 2022



### **HIGHLIGHTS**

- Year-on-year sales decline mainly attributable to weaking demand and resulting lower sales volume
- Sequentially, negative sales development due to slight reductions in price & currency and strong decline in volume



### **HIGHLIGHTS**

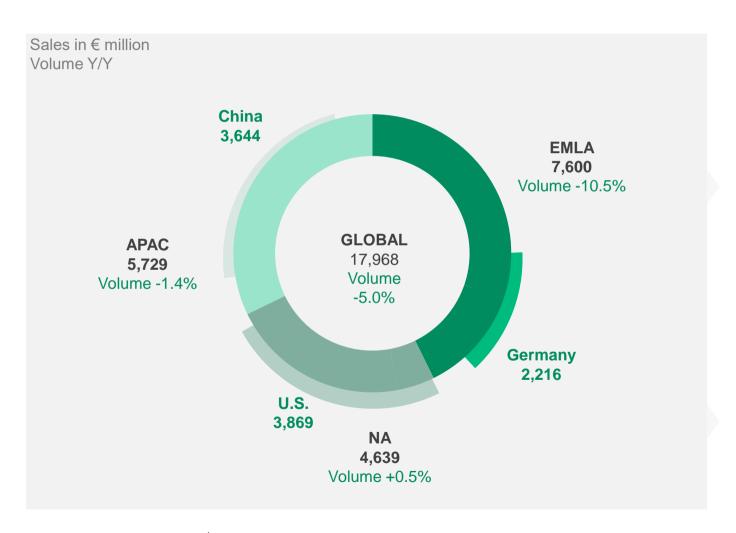
- Sequentially, earnings decreased due to negative pricing delta from significant demand weakness after prolonged destocking on customer side
- EBITDA margin decreased to -1.0% in Q4 2022 marking an all-time historical low

Notes:

# Volume decline due to demand weakness in Europe

# covestro

# FY 2022 – Regional split



### **HIGHLIGHTS**

 Volume decline year-over-year driven by a globally weaking economic climate and destocking:

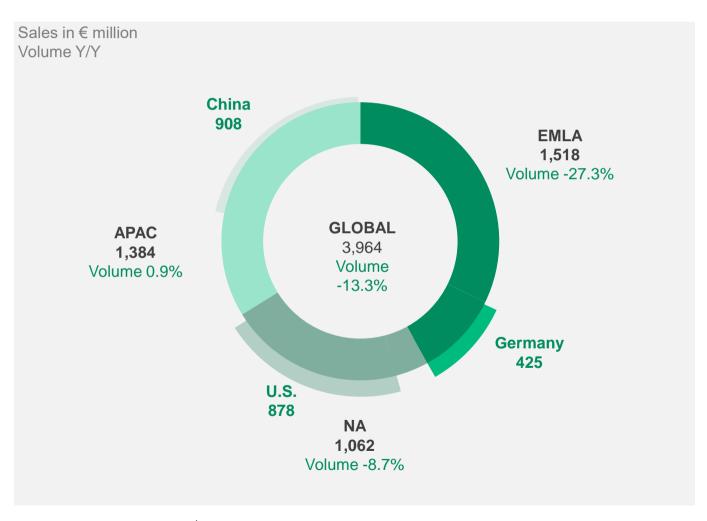
Electro low double-digit % decline
 Furniture/wood high single-digit % decline
 Auto/transport low single-digit % decline
 Construction low single-digit % increase

- EMLA: Within increasingly weakening economic environment significant decline in electro, furniture and construction; auto/transport only with slight decline due to improving chip supply in 2H 2022
- NA: Strong volume growth in construction, slight growth in auto/transport, flat development in electro, slight decline in furniture/wood
- APAC: Significant growth in construction; auto/ transport slightly positive benefitting from stimulus program despite Covid impact, furniture with slight and electro with significant decline

# Volume decline mainly in Europe

# Q4 2022 – Regional split





### **HIGHLIGHTS**

 Volume decline quarter-over-quarter driven by European recessionary environment and customer destocking initiatives:

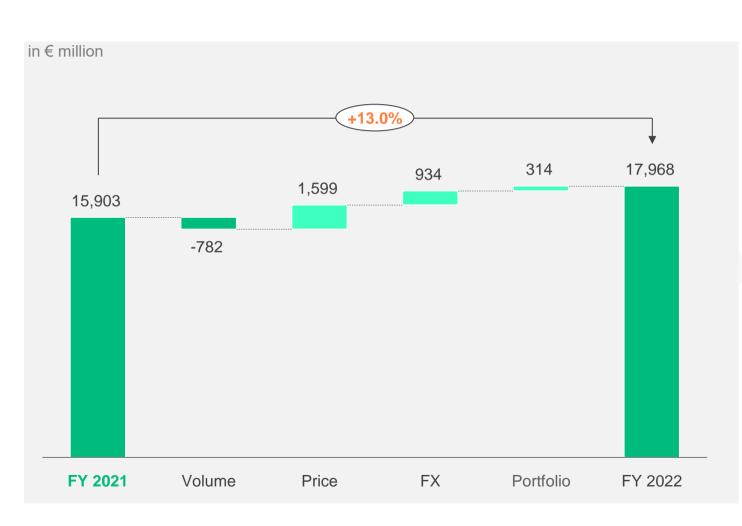
Auto/transport low double-digit % increase
 Furniture/wood low double-digit % decline
 Electro low double-digit % decline
 Construction low double-digit % decline

- EMLA: With significant demand weakness also strong decline in electro, construction and furniture; auto/transport with slight increase caused by improved chip supply and orderbook backlogs
- NA: Slight volume growth in auto/transport while construction, furniture with significant decline and electro with slight volume drop
- APAC: Significant growth in construction and auto/transport, with auto benefitting from stimulus program and easing chip shortage; significant decline in electro and slight drop in furniture

# Sales increase mainly driven by price and FX

# FY 2022 – Sales bridge





### **HIGHLIGHTS**

### Volume negative

Volume contribution of -5.0% Y/Y

### Pricing positive

- Higher selling prices that partially compensated higher energy and raw material costs pushed sales up +10.1% Y/Y
- Price increases enforced by both Performance Materials (+10.9% Y/Y) and Solutions & Specialties (+9.4% Y/Y)

### FX positive

 FX affected sales by +5.9% Y/Y mainly driven by stronger USD and RMB

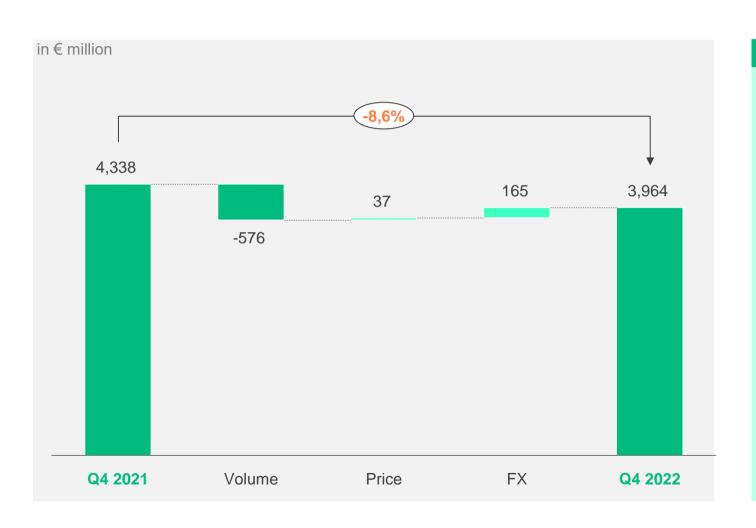
### Portfolio positive

RFM<sup>(1)</sup> increased sales by +2.0% Y/Y

# Sales decrease driven by significant volume decline

# covestro

# Q4 2022 – Sales bridge



### **HIGHLIGHTS**

### Volume negative

Volume decline of -13.3% Y/Y

### Pricing positive

 Price increases enforced by Solutions & Specialties (+3.3% Y/Y) whereas Performance Materials with negative price effect (-1.3% Y/Y)

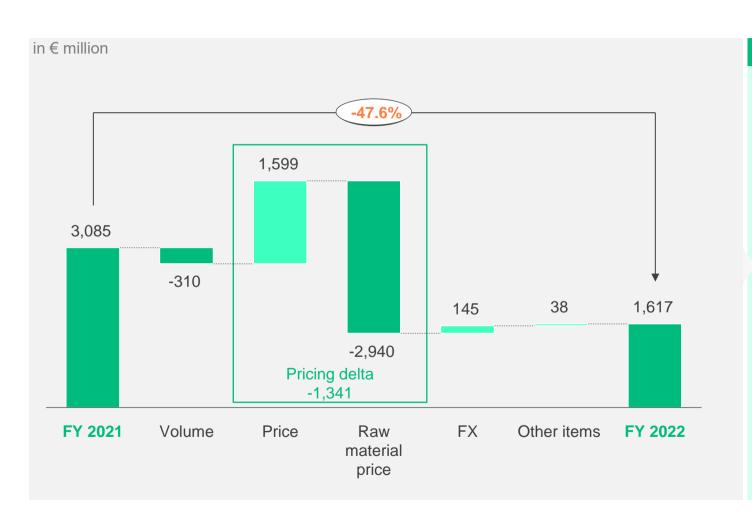
### FX positive

 FX affected sales by +3.8% Y/Y mainly driven by stronger USD and RMB

# Earnings hit by significantly negative pricing delta

# FY 2022 – EBITDA bridge





Notes:

### **HIGHLIGHTS**

### Negative volume leverage<sup>(1)</sup>

Negative volume leverage of 40%

### Negative pricing delta

 Raw material and energy cost pass-through ability declined during course of the year, leading to only 54% compensation of cost increases

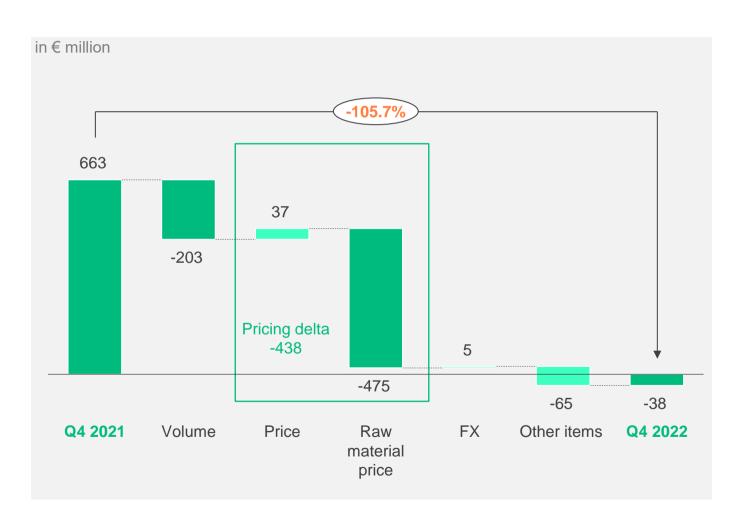
### Other items:

- Lower provisions for variable compensation of €481m
- €86m from lower cost from RFM integration and LEAP restructuring
- Significant increase of fixed costs among others due to freight, logistic and salary increases

# Lower earnings due to negative pricing delta and lower volumes



# Q4 2022 – EBITDA bridge



### **HIGHLIGHTS**

### Negative volume leverage<sup>(1)</sup>

Negative volume leverage of 35%

### Negative pricing delta widened

 Raw material and energy cost increases could not be compensated by sales price increases

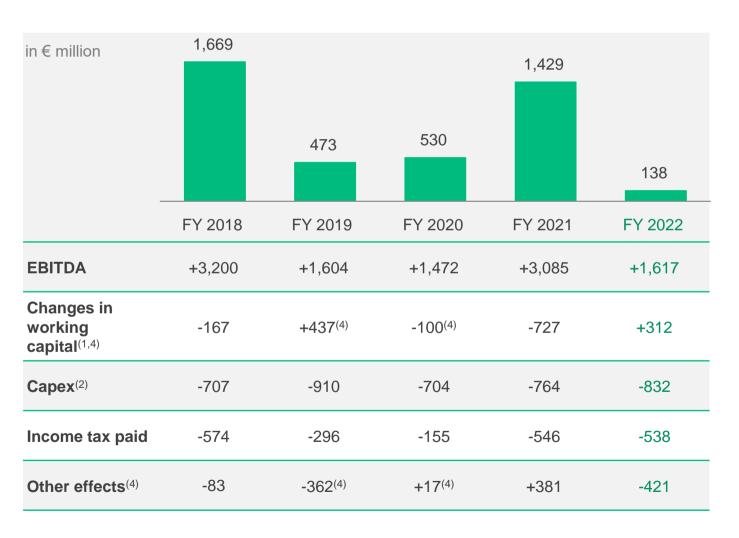
### Other items driven by:

- Lower provisions for variable compensation of €155m
- Downsizing of inventory levels caused idle costs of ~€140m
- Increase of fixed costs among others due to higher maintenance expenditures, R&D and freight costs

# Positive FOCF in a challenging year

# Historical FOCF development





Notes:

- In Q4, FOCF of €550m, significantly improved vs 9M 2022 after working capital initiative
- Resulting FY 2022 FOCF €138m
- Other effects include €475m bonus payout for successful FY 2021
- Working capital to sales ratio<sup>(3)</sup> decreased to 15.1% mainly due to working capital initiative reducing inventories along with destocking trend of our customers
- Capex of €832m on lower end of the FY 2022 guidance resulting from capex agility program
- Income tax paid of €538m reflects unfavorable geographical mix

FY 2022 | IR Roadshow Presentation

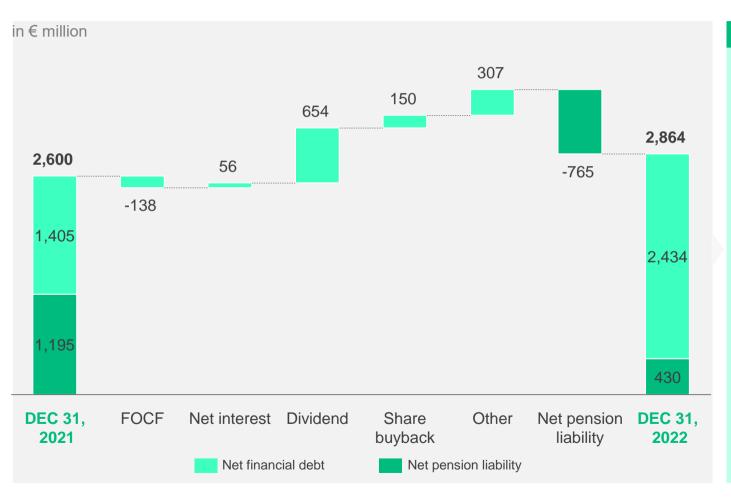
<sup>(1)</sup> Working capital includes changes in inventories, trade accounts receivable and trade accounts payable

<sup>(2)</sup> Cash-relevant capex(3) Method of calculation: Working Capital on Dec 31, 2022, divided by sales of last four quarters

# Net debt burdened by dividend and bonus payout

# FY 2022 - Total net debt





- Net pension liability decreased by €765m<sup>(1)</sup>, mainly due to higher interest rates
- "Other" driven by the renewal of finance lease, cash outflows for noncurrent financial assets and change in derivative FX instruments
- Payout of €651m dividend to Covestro shareholders following the AGM resolution for FY 2021
- FOCF includes €475m bonus payout for successful FY 2021
- €150m share buyback executed part of the two year €500m program until February 2024
- Total net debt to EBITDA ratio<sup>(2)</sup> of 1.8x at the end of FY 2022 compared to 0.8x at the end of FY 2021.
- Committed to a solid investment grade rating





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# Standard products with reliable supply and lowest cost

## **Performance Materials**



# **PRODUCTS** Polyurethane and polycarbonate standard products as well as basic chemicals **SALES 2022** (in € thousand) Basic Chemicals 846 sPolvcarbonates 1.168 sMDI 3,284 sPolyols 2.230 sTDI 1,567

### **SUCCESS FACTORS**

Ensure high asset utilization
Integrated end-2-end planning and
steering of entire supply chain and largescale production to optimize output

**Supply customers reliably** to be customers' preferred supplier



Customer centricity for standard products

### BENEFITS FOR GROUP

- Maintain leadership in Covestro core industries
- Implement growth strategy while building on vision of full circularity
- Create critical mass for Covestro in standard product offerings
- Supply downstream Business Entities at market-based prices

Strengthen superior cost position

Standardized offerings and lean order management for focused customer and product portfolio



# Performance Materials – strongly declining EBITDA

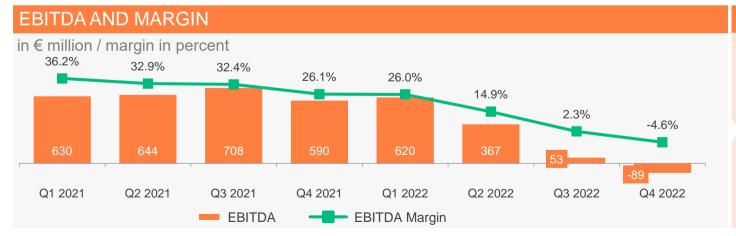


# Segment results – Highlights Q4 2022



### HIGHLIGHTS

- Sales decreased by -15.2% Y/Y driven by volume (-17.5%) and price (-1.3%), marginally counterbalanced by FX (+3.6%)
- Sales decline across all regions with strongest decline in EMLA, followed by NA and a small reduction in APAC.

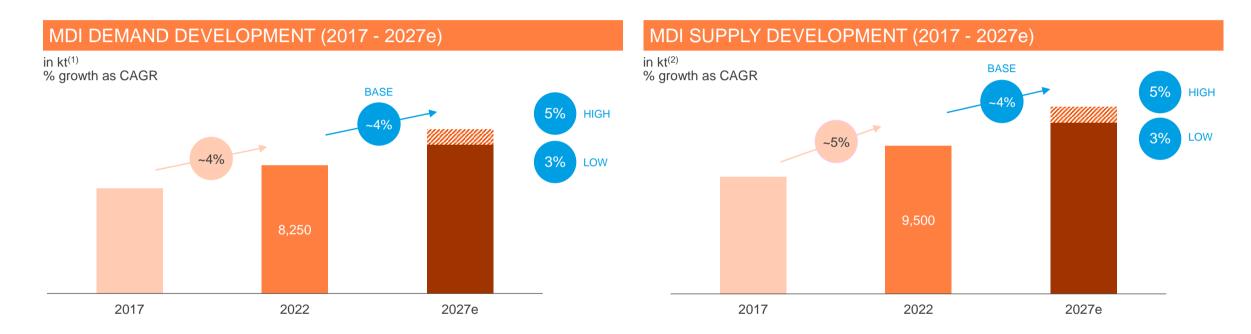


- Compared to prior year, EBITDA decrease mainly driven by significantly negative pricing delta
- Quarter-over-quarter, EBITDA decrease was driven by lower volumes, idle costs and a negative pricing delta
- In 2H 2022, EBITDA suffered from weak demand and additional destocking along the value chain

## MDI market balanced



## Performance Materials: MDI industry demand and supply



## **HIGHLIGHTS**

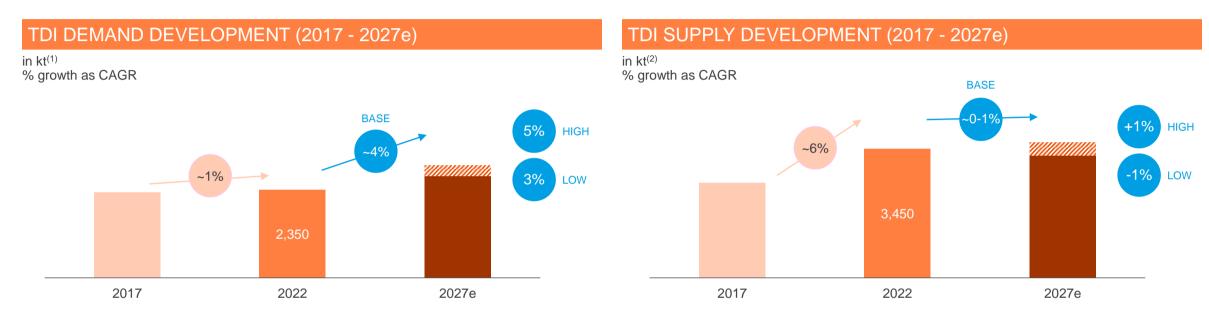
- In 2022, solid Industry Utilization Rate of 87%; industry usually fully utilized in the low nineties
- Demand CAGR of ~4% between 2022 and 2027e includes flattish development in 2023e and an acceleration of growth toward 2027e; long-term, demand growth CAGR of ~6% expected, leading to increasing industry utilization rate
- Covestro with further debottleneckings after 2027e

Source: Covestro estimates

# TDI market moving towards balance



## Performance Materials: TDI industry demand and supply



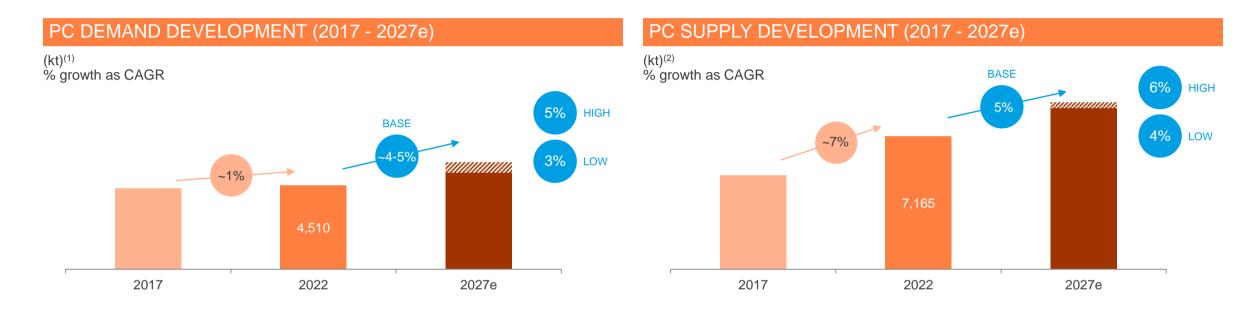
## **HIGHLIGHTS**

- Global demand declined by estimated 7% in 2022 heavily influenced by destocking
- In 2022, low Industry Utilization Rate of 68%; industry usually fully utilized in the high eighties
- Inventory refilling offering additional rebound potential; long-term, expecting demand-growth CAGR of 3-4%
- In 2023, Wanhua-Fujian ramp-up (+125kt) and BASF Ludwigshafen closure (-300kt) expected
- Favorable cash cost position puts Covestro in strong competitive position even under low cycle conditions

# Execution risks may limit future capacity additions



Performance Materials: Polycarbonates (PC) industry demand and supply



#### **HIGHLIGHTS**

- In 2022, low Industry Utilization Rate of 63%, after recent supply additions; industry usually fully utilized in the low eighties
- Inventory refilling offering additional rebound potential; long-term, expecting demand-growth CAGR of 4%

Source:

- No major additions<sup>(3)</sup> expected until 2025, followed by numerous announced projects with high uncertainties regarding timing and scope
- Covestro focus on differentiated business with increasing use of standard-polycarbonates as captive feedstock

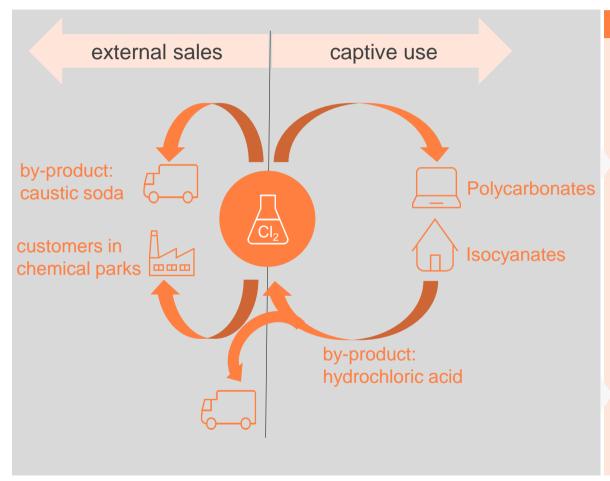
<sup>(2)</sup> Based on historical and announced future nameplate capacities

<sup>(3)</sup> Based on corporate announcements

# Chlorine supply key element to cost position of Covestro

## Performance Materials chlorine supply





#### **HIGHLIGHTS**

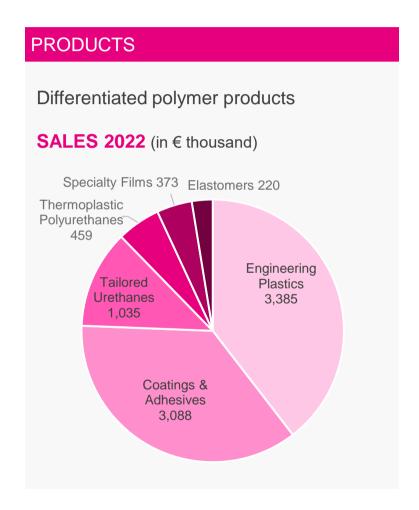
## New world-scale chlorine plant in Tarragona

- Successful start up of the first world scale chlorine plant using Covestro's patented energy efficient oxygen depolarized cathode (ODC) technology<sup>(1)</sup>
- Proprietary chlorine production replaces third party supplies employing conventional chlor-alkali electrolysis
- Significant increase of independence and efficiency of MDI production
- Investment of ~€200m and creation of 50 new jobs
- European chlorine capacity increasing by 125kt to 1.4m tons<sup>(2)</sup>
   (1.1m tons based on salt and 0.3m tons based on hydrochloric acid)
- Covestro global chlorine capacity rising to 2.3m tons<sup>(2)</sup> (1.4m tons based on salt and 0.9m tons based on hydrochloric acid)
- Mid-double-digit € million EBITDA contribution from reduced cost for chlorine and additional sales of caustic soda and hydrochloric acid
- Significant progress on Covestro's goal of energy savings of 25% and avoidance of 22,000 tons of CO<sub>2</sub> emissions compared to the conventional process<sup>(2)</sup>

# Differentiation based on customer proximity and innovation



## Solutions & Specialties



## **SUCCESS FACTORS**

## Implement a pull supply chain

Use deep customer understanding to deliver unique value to customers



#### Lead in innovation

Continuously innovate products and applications in order to maximize value proposition to customers



Customer

centricity

for

solutions

and

specialty

## **Manage complexity**

Efficiently steer customers and products at a small scale and balance cost of each solution against value for the customer

## BENEFITS FOR GROUP

- Maintain leadership in differentiated niche applications
- Implement growth strategy while building on vision of full circularity
- Improve earnings margin from relatively low starting point

# Solutions & Specialties – flat earnings development

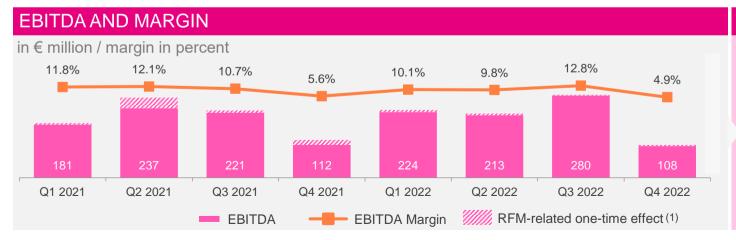


Segment results – Highlights Q4 2022



#### **HIGHLIGHTS**

- Sales declined by -1.5% Y/Y, mainly driven by volume (-8.9%), almost counterbalanced by FX (+4.1%) and price (+3.3%)
- Sales decline most prominent in APAC and EMLA, whereas NA exhibited positive sales development based on strong pricing and FX



Notes:

#### **HIGHLIGHTS**

- EBITDA seasonally lower and almost on previous year level
- Price increases could almost compensate higher raw material and energy costs
- RFM one-time effects €20m in FY 2022

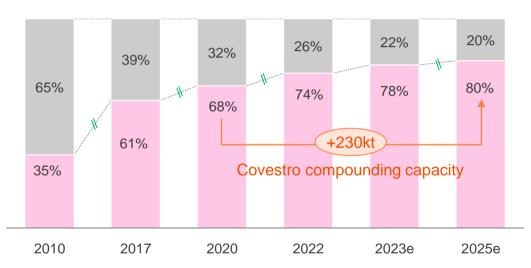
# Shifting from standard to differentiated polycarbonate

## Solutions & Specialties: high-growth contributor Engineering Plastics



#### POLYCARBONATE 2022 SALES €4.6bn

Covestro polycarbonate volume split by segment



- Differentiated PC, within Solutions & Specialties segment
- Standard polycarbonate (PC), within Performance Materials segment

Refining standard polycarbonate from Performance Materials into differentiated grades in Solutions & Specialties

## ENGINEERING PLASTICS (EP) INDUSTRY +8% CAGR 2022-2027e

#### **CUSTOMER INDUSTRIES**



#### Auto & transport

EP sales share 2022: 45% CAGR 2022-2027e: 9%



#### **Electro**

EP sales share 2022: 40% CAGR 2022-2027e: 7%



#### Healthcare

EP sales share 2022: 11% CAGR 2022-2027e: 8%

#### **GROWTH DRIVERS**

- Global trends towards BEV boost total LV production
- Number of produced BEV expected to grow strongly, with higher PC content per unit compared to conventional LV
- Strong demand in communication infrastructure, audio, LED, power supply and small appliances
- New opportunities from 5G, intelligent connectivity and electrical integration
- Aging population with increasing healthcare access in emerging markets
- Trend towards home healthcare devices and wearable monitor devices

Strong demand for differentiated polycarbonate grades across several customer industries

# Doubling sales by 2025

## Solutions & Specialties: high-growth contributor Specialty Films



#### SPECIALTY FILMS

Total Sales 2022 €373m CAGR 2022-2027e ~12%



**TARGET** 

 Doubling sales by 2025e versus Sales 2020 of €240m



**APPROACH** 

- Elevating market share from differentiation via quality and service with customer-tailored applications
- Strong competitive advantage from technical expertise and filled innovation pipeline
- Excellent customer relationships promoting joint developments with long-term contracts



 Enabling growth with investment of almost €100m from 2023e till 2025e

#### **BUILD AGGRESSIVELY MEDICAL BUSINESS**



Making use of IP portfolio to outgrow the industry with more than 20% sales growth per year



## DEVELOP AUGMENTED REALITY BUSINESS



Growing within emerging market of holographic light guiding: accelerating markets of

virtual displays in glasses and head-up displays in vehicles

# **EBITDA** margin to grow

## Solutions & Specialties segment target





## TARGET MARGIN

- EBITDA margin 2022 burdened by inflated sales but benefited from significantly higher EBITDA Y/Y
- In 2023, expecting EBITDA around<sup>(1)</sup> 2022 level
- EBITDA margin growth driven by:
  - fixed cost dilution due to strong growth, LEAP transformation
  - RFM integration and synergies
  - Focus on value-based pricing
     Based on mid-cycle intersegment charges and excluding raw material price-indicated sales inflation





- Covestro investment highlights
- Group financials FY'22
- Segment overview
- Background information

## Led by a diverse, international management team

## Covestro senior management since July 1, 2021



#### **BOARD OF MANAGEMENT**



**Chief Executive** Officer Dr Markus Steilemann Nationality: German



Officer Dr Thomas Toepfer Nationality: German

**Chief Financial** 



**Chief Commercial** Officer Sucheta Govil Nationality: British with Indian origin



**Chief Technology** Officer Dr Klaus Schäfer<sup>(1)</sup> Nationality: German

#### **BUSINESS ENTITIES**



**Performance Materials** Hermann-Josef Dörholt Nationality: German Based in Leverkusen, Germany



Christine Bryant<sup>(3)</sup> Nationality: US-American Based in Pittsburgh, USA

**Tailored Urethanes** 



**Coatings and Adhesives** Dr Thorsten Dreier<sup>(2)</sup> Nationality: German Based in Leverkusen, Germany



**Engineering Plastics** Lilv Wang Nationality: Chinese Based in Shanghai, P.R. China





**Elastomers** Dr Thomas Braig Nationality: German Based in Romans-sur-Isère, France



**Thermoplastic Polyurethanes** Dr Andrea Maier-Richter Nationality: German Based in Dormagen, Germany

# Covestro ESG rating results and index membership

## As of February 2023



ESG Ratings & Indices	Scoring Range (Worst → Best)	2016	2017	2018	2019	2020	2021	2022	Distinction
DISCLOSURE INSIGHT ACTION CLIMATE	D- to A	-	-	-	-	-	<b>A-</b>	<b>A-</b>	Leadership <sup>(1)</sup> Level
ecovadis supplier sustainability ratings	<b>0</b> to <b>100</b>	73			80			72	COUNTY (2)
MSCI ESG	CCC to AAA	BBB	BBB	A	А	А	А	AA	MSCI ESG RATINGS
SUSTAINALYTICS	100 to 0	74	75		23.3	20.0	18.3	20.9	SUSTAINALTIKS (3) ESG INDUSTRY TOP RATED
FTSE Russell	Excluded / Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed	FTSE4Good

# Higher insulation standards increase demand for polyurethanes



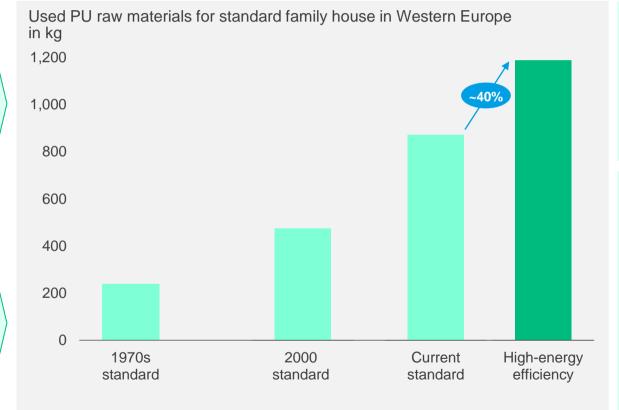
## Building insulation market outlook

#### **KEY DRIVERS**

Higher energyefficiency standards for new buildings

Renovations of older buildings to higher energy efficiency standard

## POLYURETHANES IN HOUSING INSULATION(1)

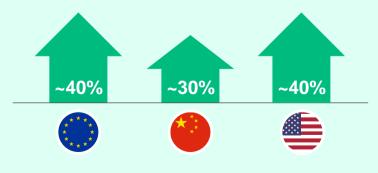


PÚ: Polvurethane

#### **HIGHLIGHTS**

- High insulation demand for high energy levels as demand boost for polyurethanes
- Higher energy standards difficult to achieve with inferior insulation materials
- Polyurethane-based insulation one of the best options to reach high energy efficiency / zeroemission standard

Demand of polyurethanes per relevant building to comply with high-energy insulation standards, compared with current standards<sup>(2)</sup>



Notes:

# Increasing BEV share boosts demand

## Global electric vehicle market outlook



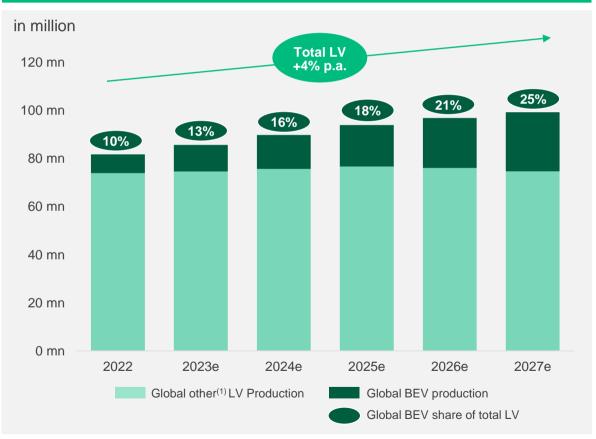
## **KEY DRIVERS**

Carbon neutrality targets

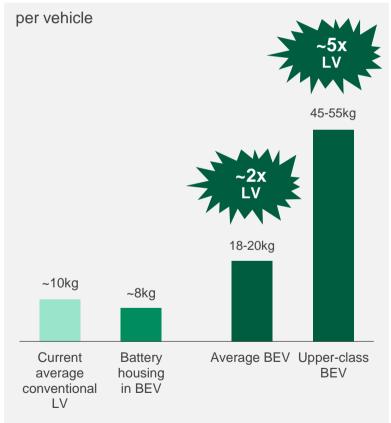
Rising fuel prices

Stringent emission regulations

## **DEVELOPMENT OF AUTOMOTIVE INDUSTRY**



## **USE OF POLYCARBONATES IN BEV**



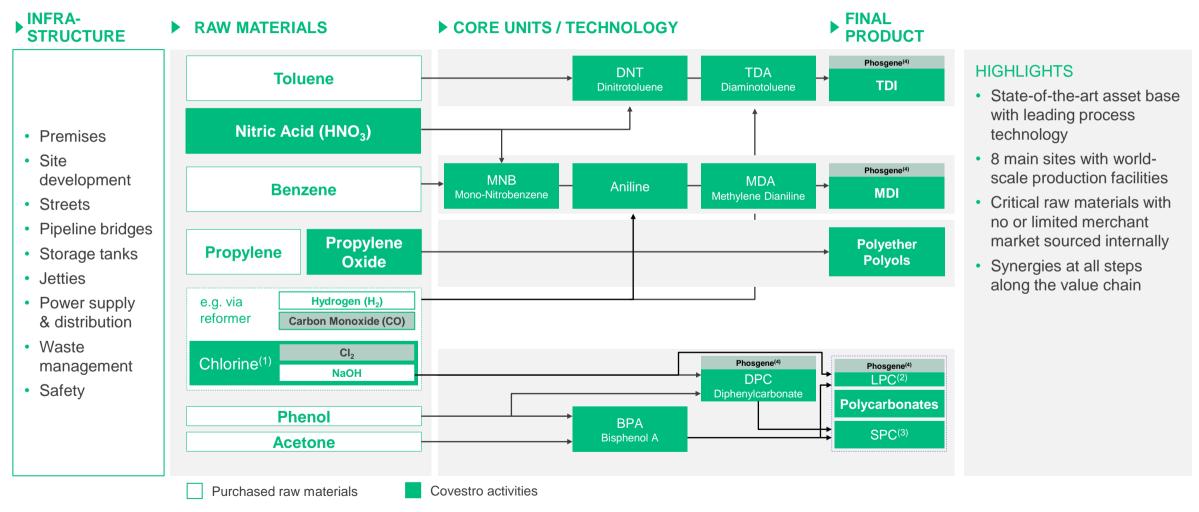
FY 2022 | IR Roadshow Presentation

Notes: (1) Total LV without BEV
BEV: Battery Electric Vehicle; LV: Light Vehicle
Sources: LMC Global Light Vehicle Engine Forecast FY 2022 – Q4

# Synergies in scale, process technology and chemical know-how



## One chemical backbone across all segments



## Synergies from chemical backbone and complementary technologies

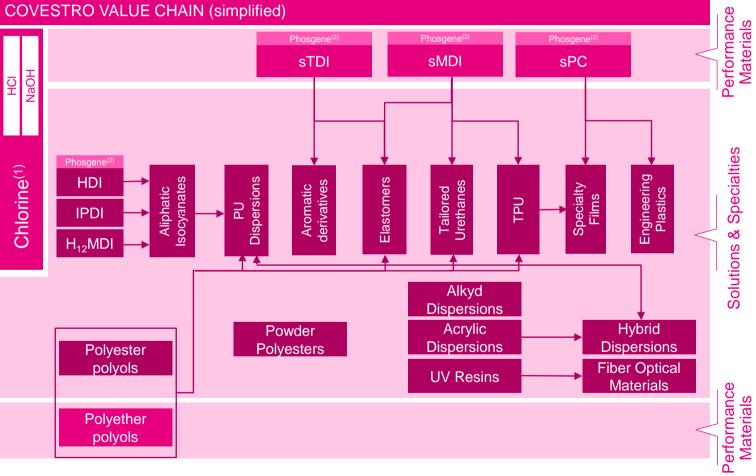


## Solutions & Specialties backward integration and value chain

## INFRASTRUCTURE **Premises** Site development Streets Pipeline bridges Storage tanks **Jetties** Power supply & distribution Waste management Safety Purchased raw



Notes:



materials

Covestro activities

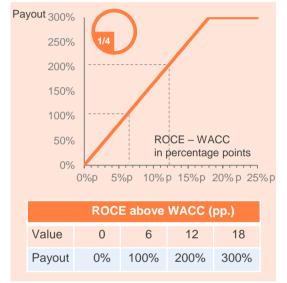
# Entire organization aligned for performance and sustainability



## Group Profit Sharing Plan (PSP) as of 2022

#### **UNIFORM BONUS SYSTEM** Payout 300% 250% 200% 150% 100% 50% **EBITDA** in € million 1,000 2,000 3,000 4,000 5,000 EBITDA (€ mio) 2,500 3,200 3.900 100% 200% 300% Pavout







## **HIGHLIGHTS**

- Full alignment of all employees (including Board) along the same KPIs
- · Criteria with full focus on performance, shareholder value creation and sustainability
- 100% payout, as percentage of annual base salary, linked to hierarchy level
- Total payout at Group level for 0%, 100% and 250% achievement is €0m, ~€0.2bn and ~€0.5bn
- Max. payout capped at 250%

# High accumulated free operating cash flow

# covestro

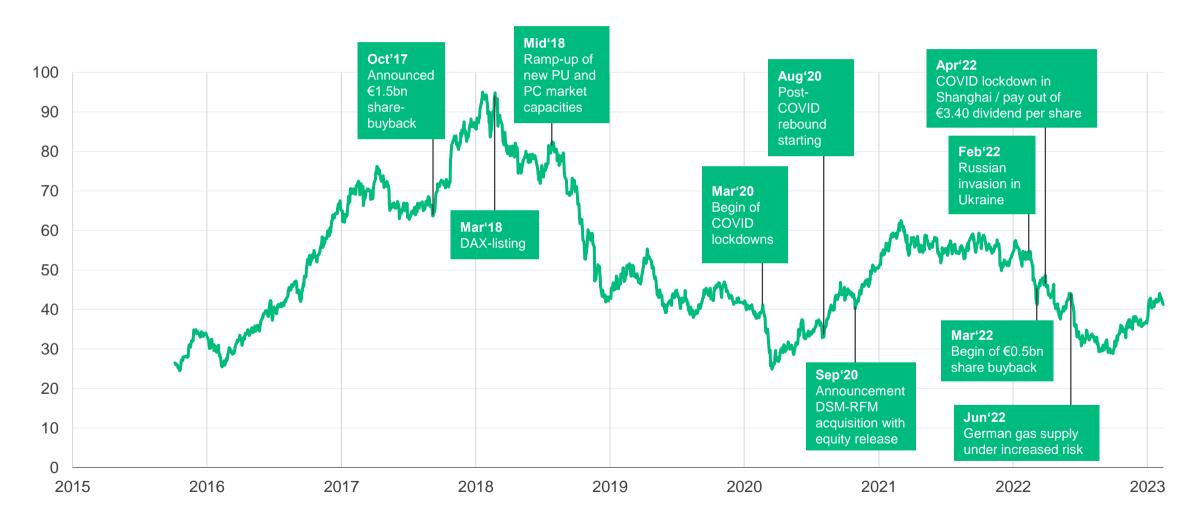
## Development of last five years

		2018	2019	2020	2021	2022
Sales	(€ million)	14,616	12,412	10,706	15,903	17,903
• Volume y/y	(%)	+2.3	+0.8	-5.1	+6.5	-5.0
• Price y/y	(%)	+4.5	-17.3	-5.7	+34.7	+10.1
• FX y/y	(%)	-3.0	+1.9	-1.6	-0.8	+5.9
Portfolio y/y	(%)	-0.4	-0.5	-1.3	+8.1	+2.0
EBITDA	(€ million)	3,200	1,604	1,472	3,085	1,617
Performance Materials		2,825	942	896	2,572	951
Solutions & Specialties		585	832	743	751	825
Earnings per Share	(€)	9.46	3.02	2.48	8.37	-1.42
Capex	(€ million)	707	910	704	764	832
Free operating cash flow (FOCF)	(€ million)	1,669	473	530	1,429	138
ROCE above WACC	(%points)	22.8	1.6	-0.3	12.9	-5.0
Total net debt (1)	(€ million)	1,793	2,954	2,479	2,604	2,920
Employees (2)	(FTE)	16,770	17,201	16,501	17,909	17,985

# Historical share price performance

## Covestro € share price since IPO

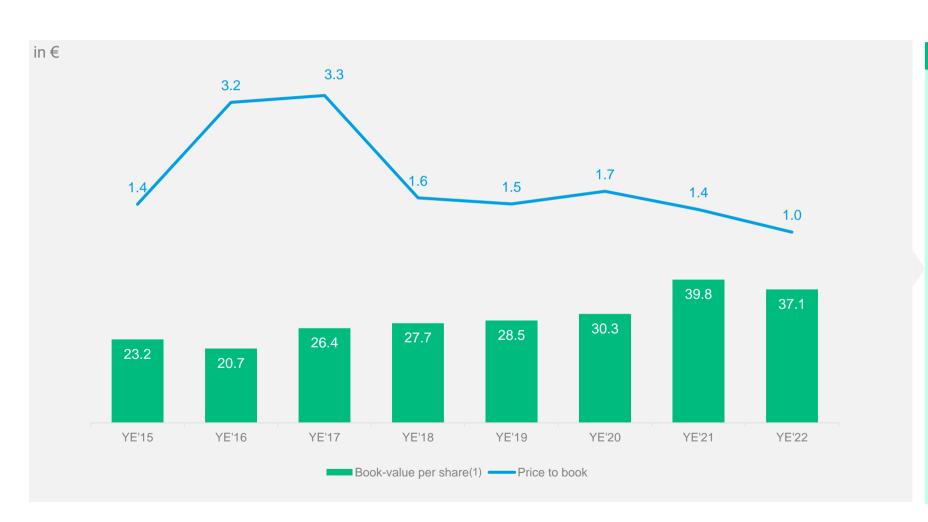




# Historically low price to book value

## Book-value per share and price to book development





## HIGHLIGHTS

# Book value per share increased by 10% p.a.

 based on the CAGR between 2016 and 2022

#### **ROE of 14%**

 on average between 2016 and 2022

# Cumulated dividend of €11.85 per share

 based on the dividends for fiscal years 2016 to 2022<sup>(2)</sup>

# Upcoming IR events



## Find more information on <a href="mailto:covestro.com/en/investors">covestro.com/en/investors</a>

## REPORTING DATES

April 28, 2023
August 1, 2023
October 27, 2023
Q1 2023 Quarterly Statement
2023 Half-Year Financial Report
Q3 2023 Quarterly Statement

## ANNUAL GENERAL MEETING

April 19, 2023 Annual General Meeting

## **BROKER CONFERENCES**

March 9, 2023 Goldman Sachs 12<sup>th</sup> Annual European Chemicals and Consumer Ingredients Conference, London
 March 10, 2023 Morgan Stanley China Insight Webinar, virtual



## Disclaimer

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

Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Covestro's public reports, which are available on the Covestro website at <a href="https://www.covestro.com">www.covestro.com</a>.

The company assumes no liability whatsoever to update these forward-looking statements or to adjust them to future events or developments.