



A global industry leader with high profitability

Sellside roundtable: Deep dive on segment
Coatings, Adhesives, Specialties (CAS)

Michael Friede, Head of CAS

Forward-looking statements



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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 www.covestro.com.

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



CAS at a glance



Acquisition of RFM

A global industry leader with high profitability

CAS key investment highlights



1

High-end solutions for added-value materials
support high profitability

2

Global prominent and robust position
in industries with distinct entry requirements

3

High level of backward integration
and excellent, proprietary technologies provide sustainable competitive cost advantage

4

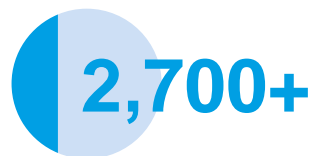
Announced acquisition of DSM Resins & Functional Materials business
to build a leading sustainable coating resins player

A global industry leader with high profitability

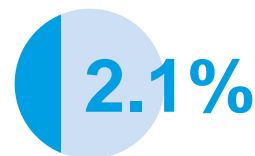
CAS at a glance



Producer globally of aliphatic isocyanates and PU dispersions^(a)



Products based primarily on 6 monomers



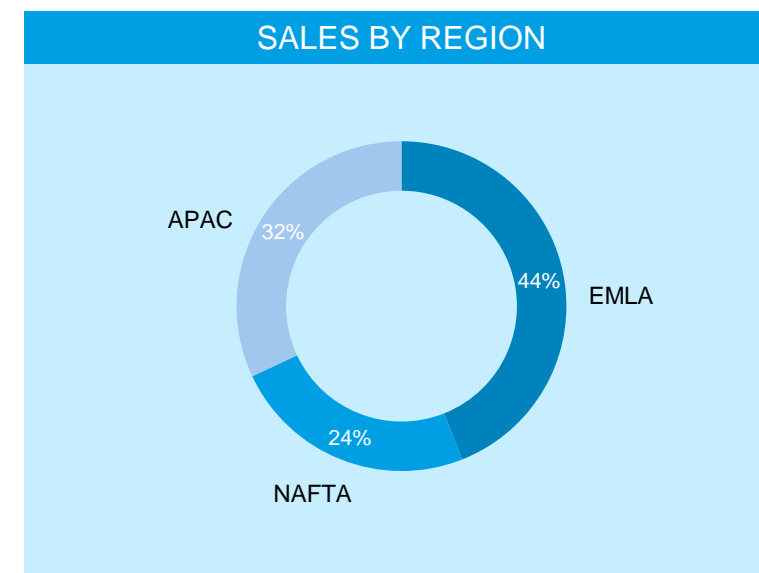
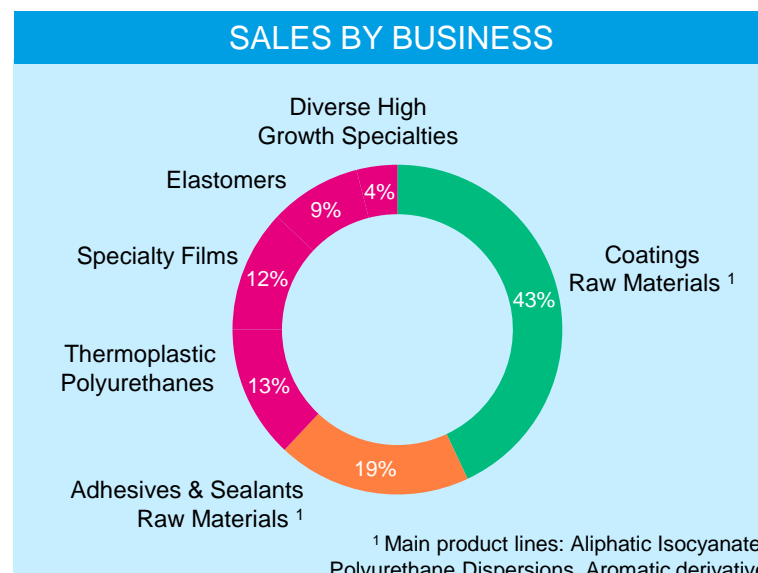
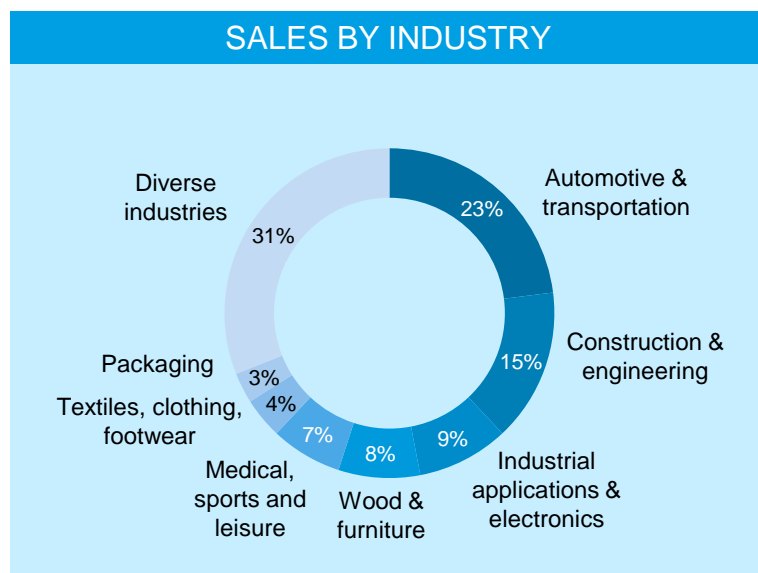
Core volume CAGR in 2015 -2019^(b)



Sales 2019



EBITDA 2019

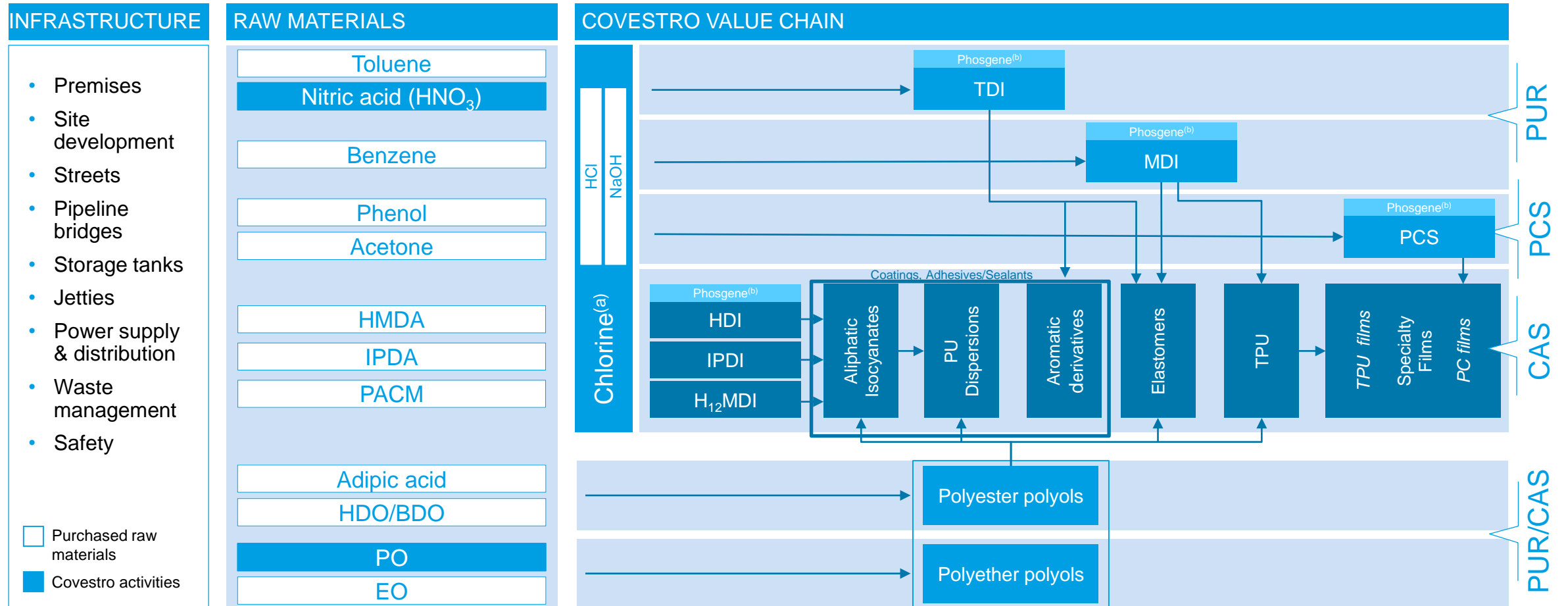


(a) Based on nameplate capacity at year end 2019 as per Covestro estimates. (b) All figures adjusted to reflect the transfer of the specialty elastomers business from the Polyurethanes segment to Coatings, Adhesives, Specialties segment as of January 1, 2018 as well as the termination of trading activities and reduced contract manufacturing

Significant synergies from Covestro chemical backbone



CAS backward integration



High-performance polyurethane chemistry for coatings

CAS Coatings Raw Materials at a glance



#1

Producer of PU coatings raw materials^(a)

- Coatings raw materials are used in a wide range of end market applications
- Applications require high-performance products that enable distinct characteristics like abrasion resistance, durability or gloss retention
- Focus on higher-value components in the coatings market by providing added-value solutions
- Global network to reliably supply customers, combined with leading formulation know-how and technical expertise in coatings applications
- Innovation in coatings raw materials as core competency, enabling competitive differentiation and growth
- Product portfolio offers sustainable materials like water-borne and bio-based polyurethanes as well as materials that improve the industrial hygiene for applicators

2-3%

Market growth^(b)

~43%

of total CAS sales 2019

>950

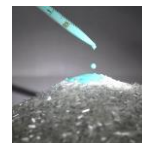
Customers globally



Automotive & transportation



Transport & vehicles



Industrial coatings



Corrosion protection



Construction

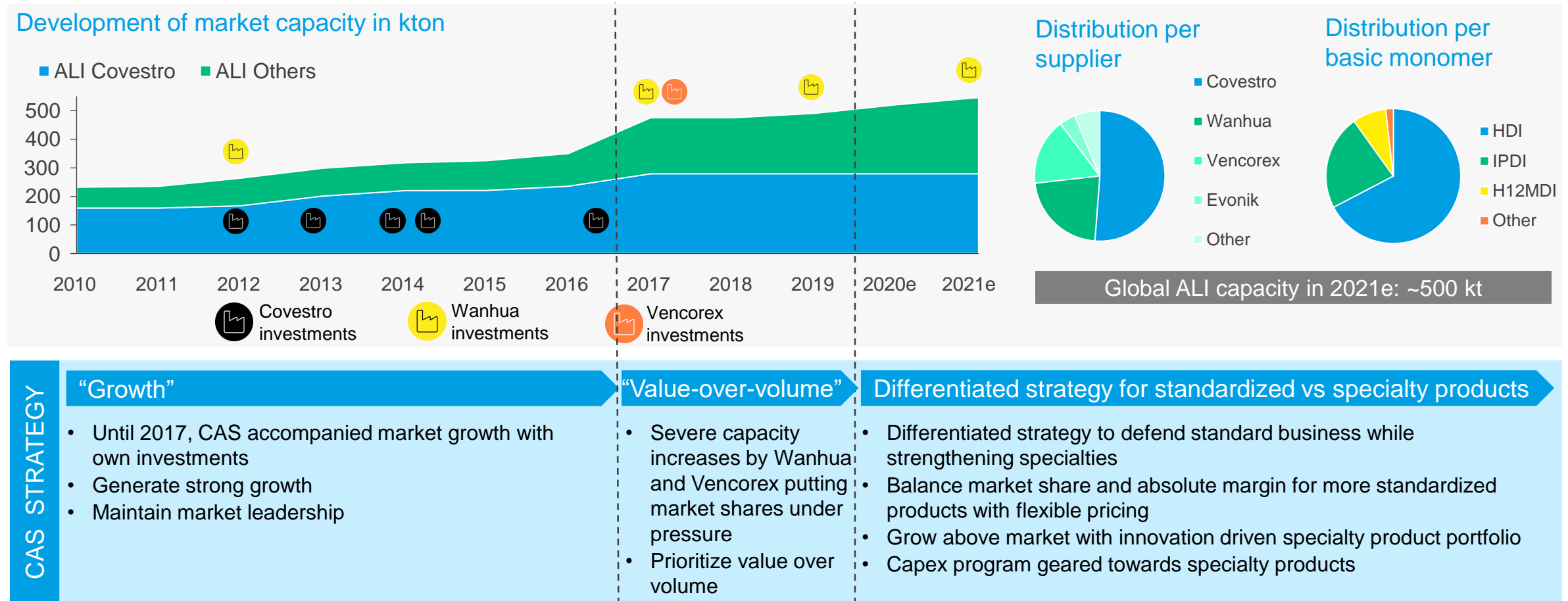


Wood & furniture

Grow above market with innovative specialty products



CAS Aliphatic isocyanates strategies



Attractive niche in adhesives and sealants industries



CAS Adhesives & Sealants at a glance

#1

Producer of aqueous
PU ADH/SEA^(a)

- Adhesives and sealants raw materials are used in wide range of end market applications
- Applications require high-performance products with unique characteristics like high flexibility or compliance to environmental standards like VOC^(c) regulations
- Focus on higher-value components in the adhesives and sealants industries by providing added-value solutions
- Tailored solutions are adapted to substrate, environment, industry specifics, application method and curing
- Filled innovation pipeline ensures future competitiveness and business growth

2-3%

Market growth^(b)

~19%

of total CAS sales 2019

>550

Customers globally



Automotive



Packaging



Footwear



Wood & furniture



Construction



Industrial
adhesives

Leading supplier for high-performance resins

CAS Thermoplastic Polyurethanes (TPU) at a glance



#3

Producer of TPU^(a) globally

~6%

Market growth^(b)

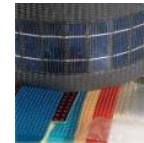
~13%

of total CAS sales 2019

6

Production facilities globally^(c)

- High-performance resins covering diverse markets from hard plastics to soft elastomers and rubber
- Core volume growth of ~9% (CAGR 2015-2019)
- Opportunity to outgrow industry by constant re-specifications and innovative market extension
- Covestro as global top 3 producer with strong positions in all major regions and commitment to growth
- Leverage of formulation and processing know-how across global production network as basis for planned capacity expansions
- Attractive internal synergies via backward integration in MDI and polyester polyols as well as broad access to diverse customer industries
- Well-filled innovation pipeline including path to lower production costs with CO₂-based polyols



Textiles



IT & electronics



Sport & leisure



Agriculture



Automotive



Industrial

A leading supplier for PU cast elastomer systems and equipment



CAS Elastomers at a glance

#2

Producer of
PU elastomer systems

~3%

Market growth^(a)

~8%

of total CAS sales 2019

11

Production facilities
globally

- A globally leading supplier for elastomers systems with a comprehensive portfolio based on NDI, MDI, TDI and aliphatic isocyanates
- Decades of outstanding position for casting equipment, driving the innovations
- Core Sales growth of 3% (CAGR 2017-2019)
- Pioneer supplier proposing complete solutions: materials, machine and process expertise
- Target industries with strong growth (above GDP) providing state-of-the-art elastomers solutions and sustainable solutions
- Production plants in main regions for optimized supply chain and to ensure cost efficiency



Full recyclable
mining screen



Zero-crush wheel for carton box
production (e-business)



Bend restrictor for offshore
windfarm

Infusion machines for PU wind
blade production

Strong growth potential from digitalization and automation

Vulkollan® elastomers



- Vulkollan® elastomers have been basis for wheels in the forklift industry for decades
- Extremely high mechanical strength and dynamic load capacity make it the material of choice for material handling applications
- E-commerce and digitalization in the material handling industry are strong drivers for continuous growth
- Vulkollan® materials merge long-term functional reliability with exceptional performance leading to optimized total cost of ownership
- To match the future needs Covestro is building a new production plant for Vulkollan® raw materials in Thailand
- The unequalled property profile of Vulkollan® makes it the ideal material solution for numerous growing applications requiring high-performance



A leading film solution provider of PC, TPU and holographic films



Specialty Films at a glance

#1 or #2

Producer of PC- and TPU- films globally

4-5%

Market growth^(a)

~12%

of total CAS sales 2019

6

Production facilities globally

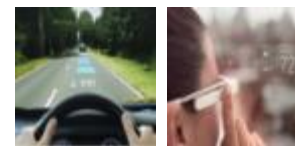
- Leading global supplier for PC- and TPU-films
- Supplying diverse, regional markets with customized films solutions
- Core volume growth of 5% (CAGR 2015-2019)
- Robust future growth expectation significantly above GDP supported by innovative product portfolio
- Strong technology background in extruded films production, surface modification and coatings technology
- Strong innovation pipeline offering solutions to future industry trends



TPU films



PC films



Holographic films



Identification as one major application

Specialty Films application



For forgery-proof documents

The requirements for ID documents in the 21st century have changed drastically such as for passports, ID cards or drivers' licenses.

With over 30 years of expertise and our curiosity for innovative material solutions in Makrofol® or Platilon® ID films, we offer our customers to be one step ahead of counterfeiters.

We continuously develop new concepts for high-security documents to offer new material solutions to our customers for more effective process technologies.

Sample applications

Process efficiency with innovative materials & process technologies



Integration of complex or specialized security features into ID documents



Innovative film materials to meet high-security needs



Digitalization – integration of electronic components

Medical as other major application

Specialty Films application



For smart healthcare

With an aging and growing world population, there is a rising demand to deliver quality-driven smart healthcare.

With a full range of biocompatible and GMP*-produced films for medical applications Specialty Films has recorded several decades of experience and expertise in this field.

With a unique and extremely broad portfolio, we support more than 60 different applications in the medical field.

Sample applications

Tear-resistant extra matt TPU films applicable towards incision films



PC films with high impact resistance for clam shell packaging of implants



Highly breathable films suitable for advanced wound care

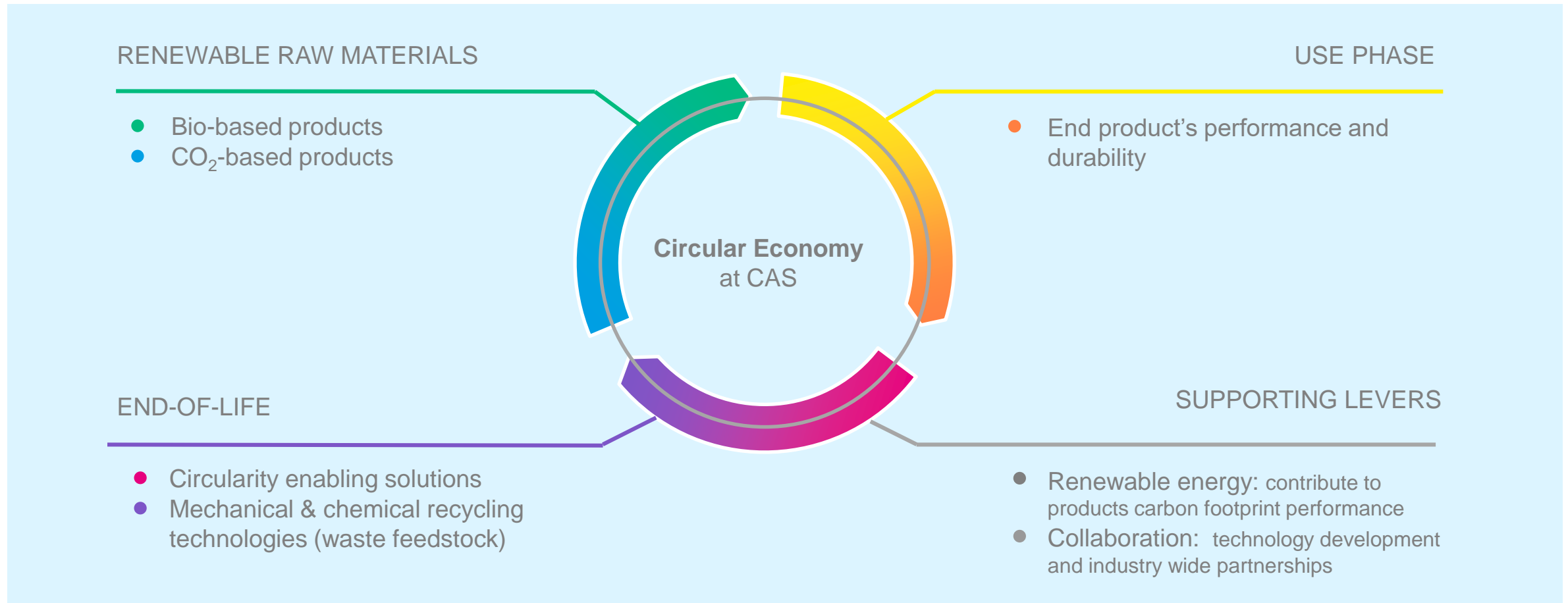


Soft, stretchable and printable product range enabling electronic skin patch design

CAS will be fully circular



Key circularity levers to reduce product's carbon footprint and end-of-life waste



CAS will be fully circular



Key circularity levers to reduce product's carbon footprint and end-of-life waste

PERFORMANCE AND DURABILITY

Contribution to limit waste

Long-lasting solutions to extend end-products' life



And many more...

Target application's performance requirements are key

- Weather protection
- Scratch resistance
- Temperature resistance
- Chemicals resistance
- Abrasion and tear resistance
- Load bearing capacity

ALTERNATIVE RAW MATERIALS

Replacing fossil resources

Partially bio-based products



Commercial partially bio-based products

- Desmodur® eco N
- Bayhydur® eco
- Bayhydrol® eco
- Impranil® eco
- Baycusan® eco
- Desmopan® eco
- Makrofol® EC
- Dispercoll® eco

CIRCULARITY ENABLING SOLUTIONS

Designing for our customers

Bio-degradation and separation technologies



Commercial bio-degradable products

- Dispercoll® U 26822
- Impranil® DLN-SD
- Baycusan®

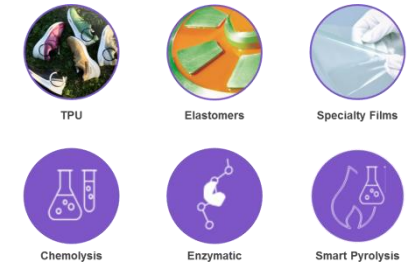
Innovation projects

- Terminus (EU funded project)
- Multi-layer separation projects
- Mono-material chemistry

INNOVATIVE RECYCLING SOLUTIONS

Closing the loop

Bring waste back into the value cycle



Mechanical recycling projects

- Developing solutions for TPU, ELA and SF recycling while aiming at minimizing down cycling effect

Chemical recycling projects

- Investigating various technologies and waste feedstocks to recover building blocks of CAS products
- Seek for partnerships to access target waste

Pushing boundaries in the automotive OEM painting process

HDI-based Blulogiq® Technology



Blulogiq® – A THERMOLATENT HARDENER

Developed by Covestro for automotive metal car bodies and plastic clear coats
Speeds up cross-linking to achieve quicker hardening at lower temperatures

Benefit for plastic coating process

- Enables productivity gains on plastic parts without compromising coating durability and appearance

Benefit for metal car body coating process

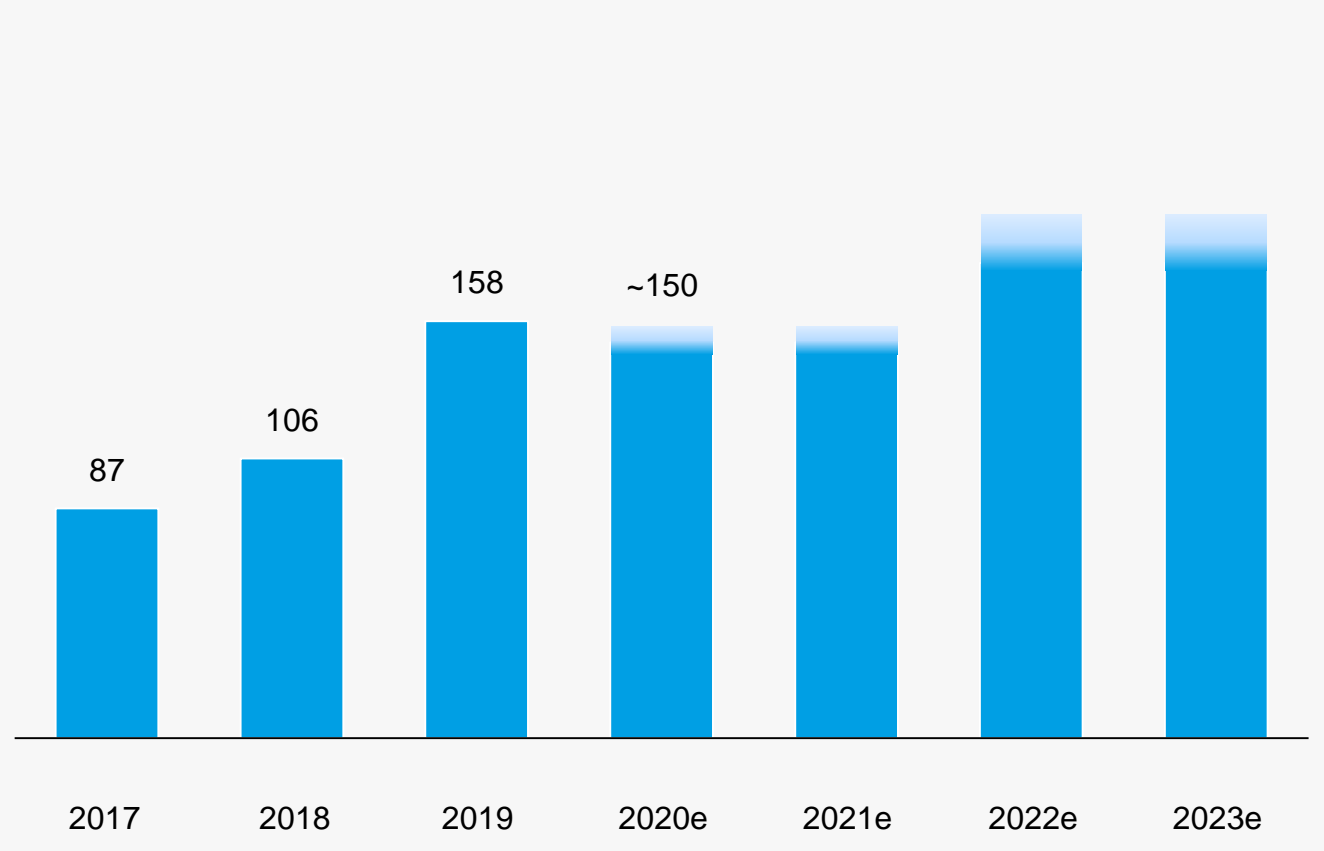
- Allows to increase the conveyer speed (shorter oven time / higher throughput) in conventional 140°C high bake painting process
- Enables to reduce oven temperature from today 140°C to 85°C at the same process time
- Reduces energy consumption and CO₂ emissions
- Reduces process costs

Increasing investment level in CAS

Capital expenditures



Capex in € million



RECENT INVESTMENT HIGHLIGHTS

APAC: PC films new production line, Thailand

- Serve fast growing demand in Asia in automotive, medical and ID documents sectors
- Investment: low double-digit million Euro range
- Production start: mid-2020

EMEA: PC films capacity expansion, Germany

- Build up of new coextrusion capacities to support strong growth in medical business
- Investment: mid double-digit million Euro range
- Production start: end-2020

APAC: Vulkollan® new production plant, Thailand

- Satisfy growing demand for high-performance elastomers
- Investment: high double-digit million Euro range
- Production start: end-2022



■ CAS at a glance

■ **Acquisition of RFM**

Building a leading sustainable coating resins player



Transaction overview

Transaction value



- Enterprise value of €1.55bn
- 10.3x EV / 2021 Budget EBITDA
- 5.7x EV / 2021 Budget EBITDA including full synergies

Financial impact



- Announced acquisition of Resins & Functional Materials (RFM) and innovation ventures
- RFM sales of €984m and EBITDA of €141m in 2019
- Innovation ventures Additive Manufacturing, NIAGA and Advanced Solar Coatings with sales of €28m and EBITDA of €-8m in 2019
- €120m synergies by 2025

Financing



- Full bridge financing in place
- Covestro is committed to a solid investment grade rating (Moody's confirmed solid investment grade rating after acquisition announcement)
- Refinancing will be a combination of €447m equity (successfully realized on Oct 13), ≤€600m long-term debt and ~€550m own cash

Timing





- Acquisition agreed on Sep 30, 2020
- Subject to regulatory approvals including antitrust clearance
- Closing expected in Q1 2021


Building a leading sustainable coating resins player





Acquisition rationale

-  Creating a global leader in sustainable coating resins

-  Compelling strategic fit with highly complementary portfolio and technology

-  Shifting CAS portfolio towards high growth markets driven by sustainability

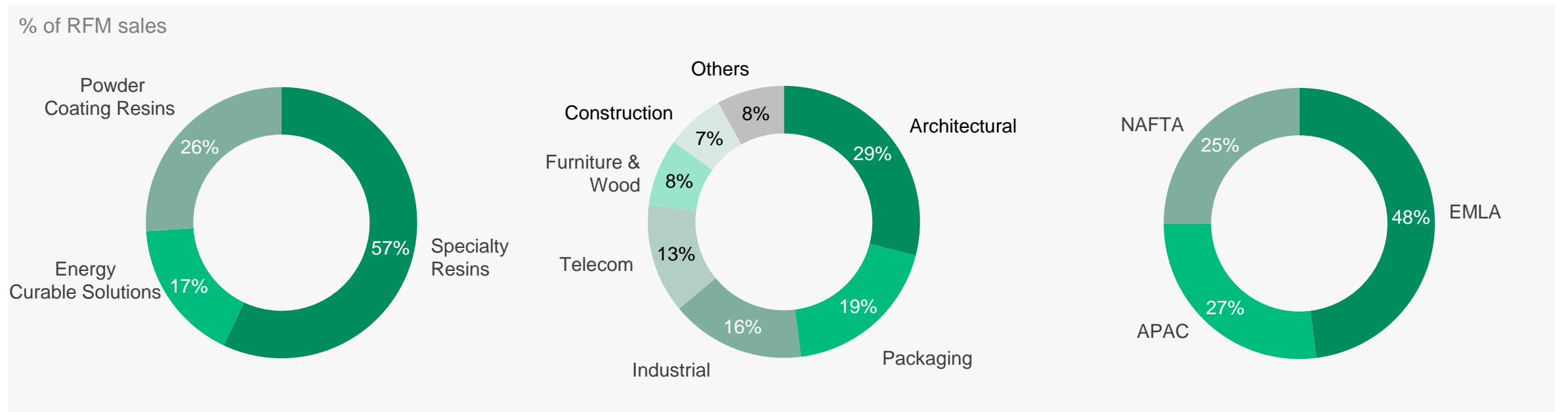
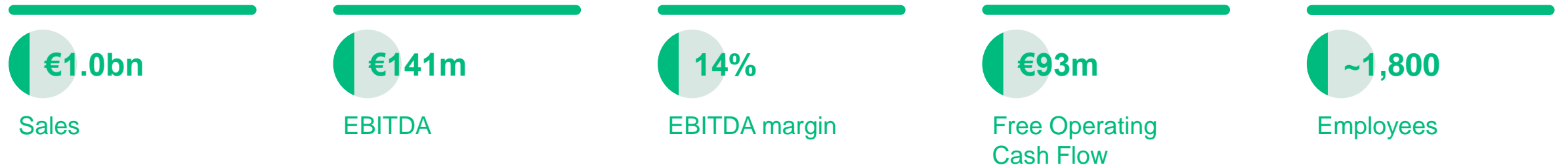
-  Significant value creation through strong synergistic benefits

-  Comparable sustainability and innovation driven culture and corporate values

RFM is a global leader of sustainable coating resins



RFM key financials in 2019

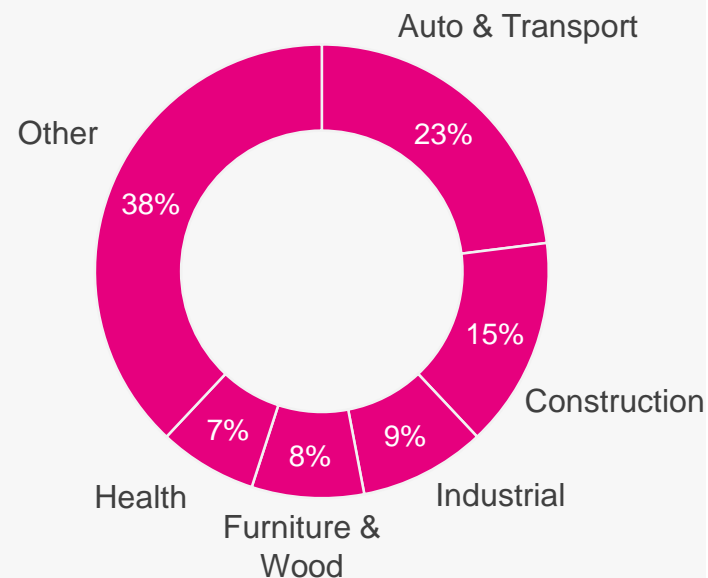


Bolt-on acquisition diversifies industry portfolio

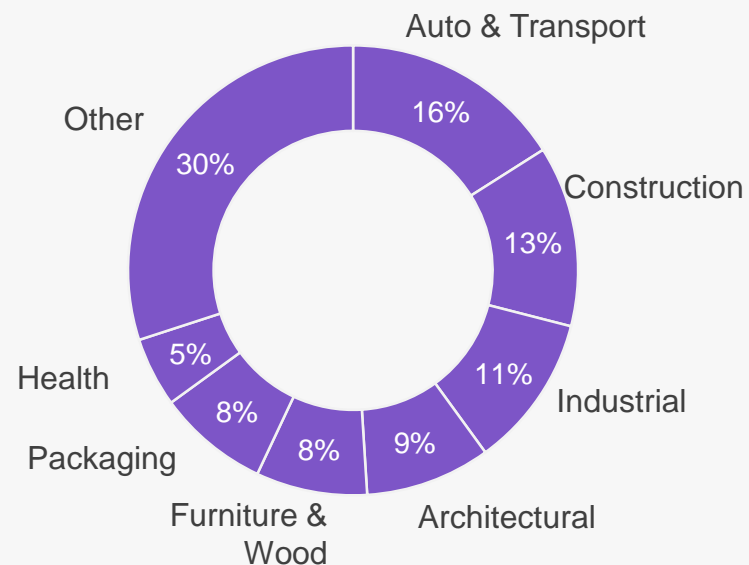
CAS by industries



CAS SALES ~€2.4bn (2019)



CAS/RFM SALES ~€3.4bn (2019 pro-forma)



HIGHLIGHTS

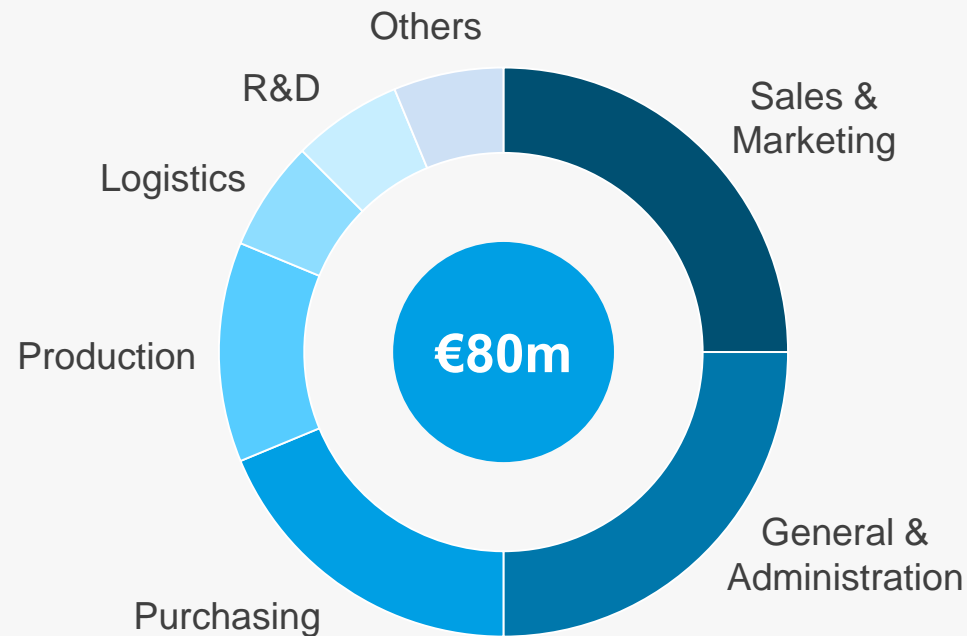
- RFM will increase CAS sales by €1.0bn to €3.4bn (25% of Covestro sales^(a)) with complimentary product portfolio
- CAS Coating Resins sales will increase to €2.1bn (60% of CAS) with balanced portfolio of customer industries
- Significant step in Covestro's long-term corporate strategy, strengthening sustainable and innovation-driven business
- Covestro with well established position in water-based polyurethane dispersions, acquisition adds complete range of water-based polyacrylate resins

Significant cost synergies of €80m

Identified cost synergies by 2025



DISTRIBUTION OF COST SYNERGIES



HIGHLIGHTS

Sales & Marketing

- Bundle sales and marketing functions for same applications and customers

General & Administration

- Integrate respective RFM functions into existing Covestro support structures

Purchasing

- Use most favorable conditions of RFM and Covestro
- Intensify in-house sourcing

Production

- Optimize production by efficiently using both asset bases

Logistics

- Apply and combine best practice and processes as currently used by RFM and Covestro

Research & Development

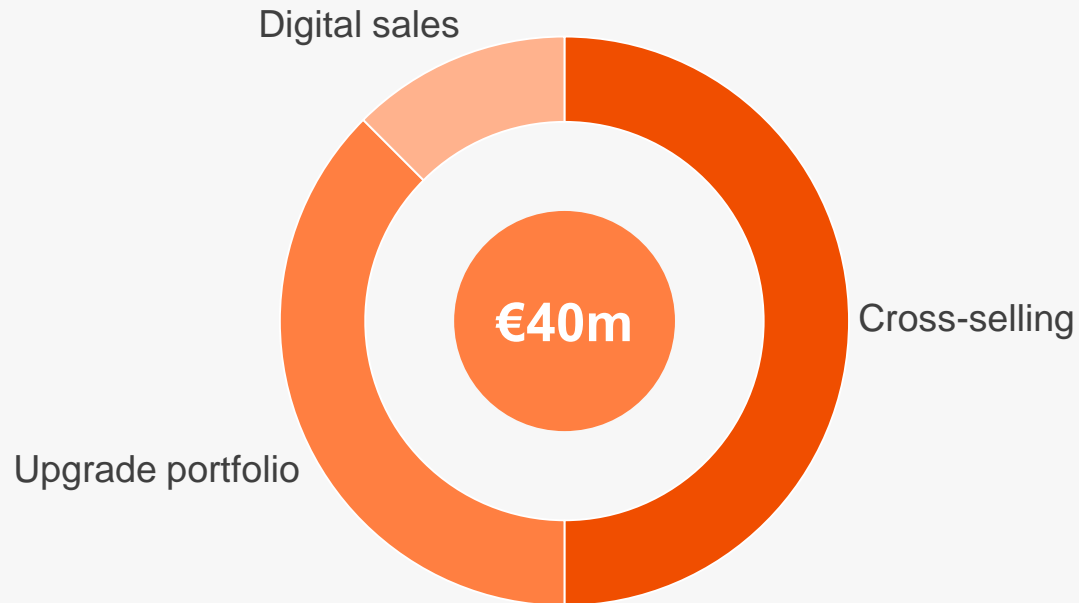
- Combine R&D activities and optimize project pipeline for overlapping topics

Significant revenue synergies of €40m

Identified revenue synergies by 2025



DISTRIBUTION OF REVENUE SYNERGIES



HIGHLIGHTS

Cross-selling

- Increase share of wallet at customers with cross-selling opportunities
- Expand regional presence of RFM by leveraging existing Covestro set-up

Upgrade portfolio

- Combined broader portfolio of resin systems and tailor-made hardener-resin-systems
- New product developments based on combined portfolio and technologies

Digital sales

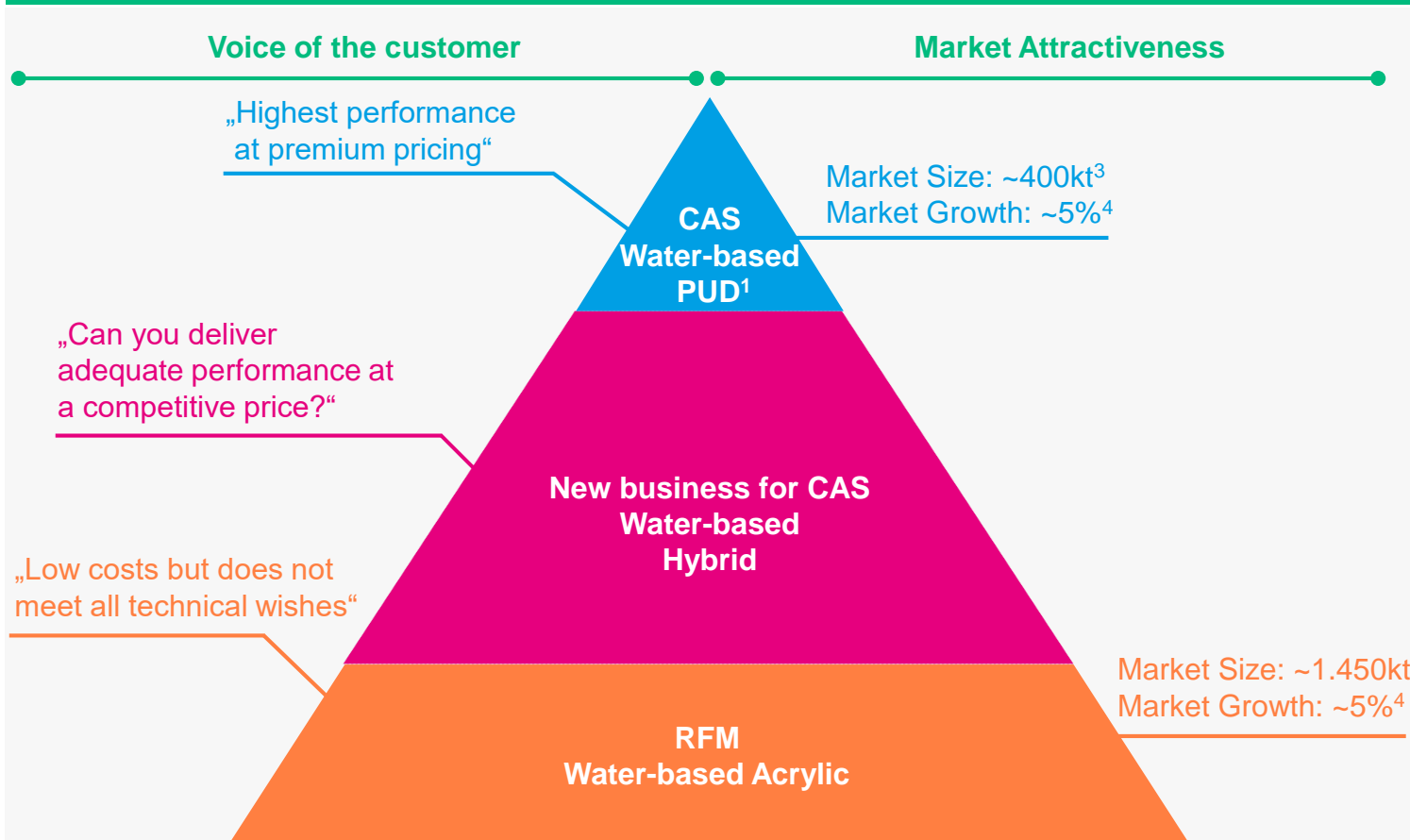
- Speed up digitalization via new business models
- More attractive online store

Combined product portfolio generates additional customer range

Upgrade portfolio



MID-GRADE / MID-PRICE MARKET CURRENTLY UNTAPPED



COMBINING CAS & RFM COATING RESINS

COV PUD¹ mainly addresses industries with higher grade requirements at higher prices

Combination of both PUD-based and Acrylate-based coating resins will create an additional business which will open a new range of customers

Serving the full range by blending PUD-based resins and Acrylate based resins at every desired ratio

Between coating resins of high price/grade and low price/grade also offering any mid price/grade combination within a so far largely untapped market for CAS

DSM WB² Acrylics mainly addresses industries with lower grade requirements at lower prices

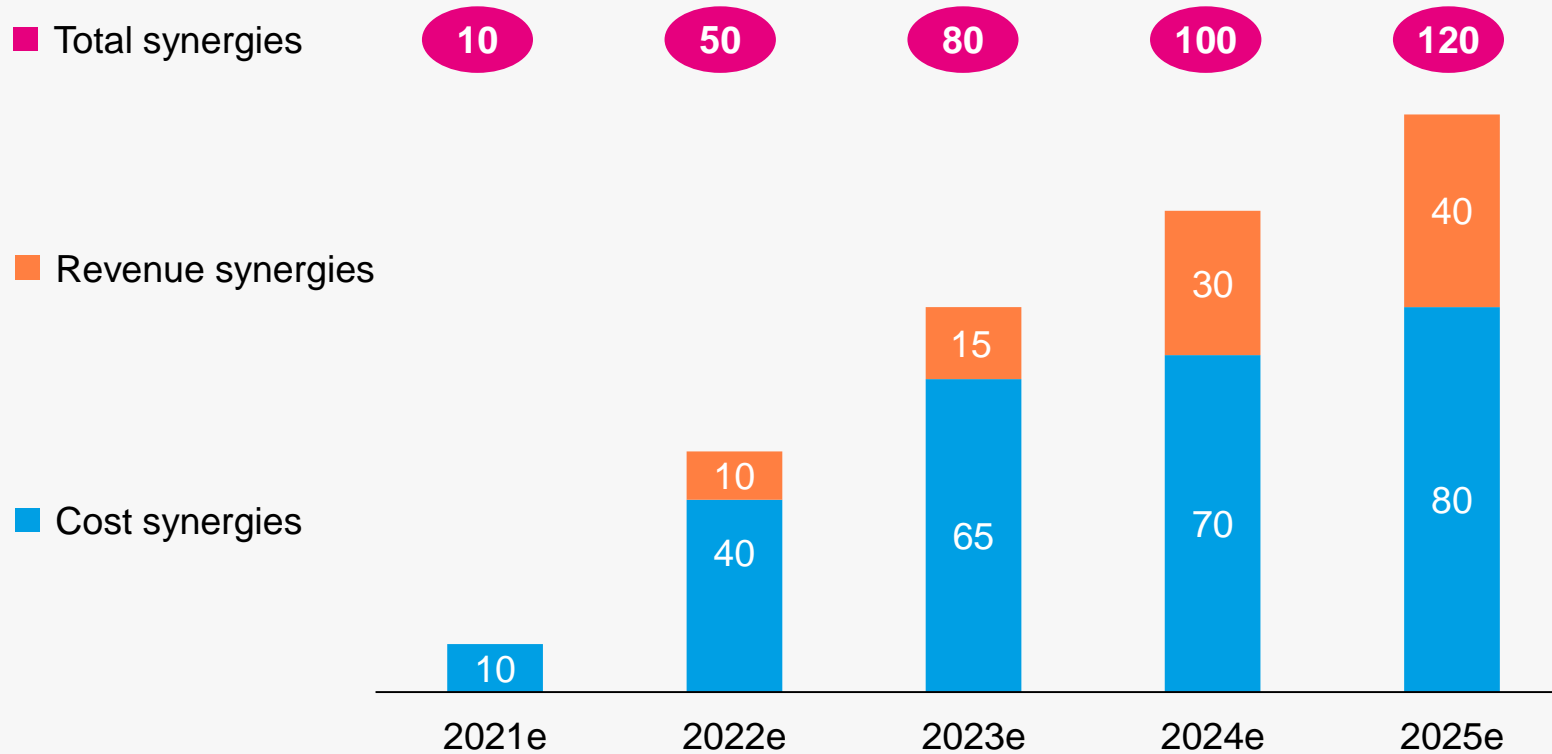
Full synergies of €120m expected until 2025

Synergy ramp-up



SYNERGIES AND IMPLEMENTATION COSTS

in € million



HIGHLIGHTS

- Identified synergies amount to €120m, 12% of RFM sales
- Total implementation cost of €140m (mainly in 2021) to realize annual synergies of €120m
- Realization of full synergies by 2025 with two third of synergies materializing already by 2023
- Quick realization of cost synergies while time reserved for revenue synergies from portfolio updates

Adoption of 5G to drive significant acceleration in demand



Further operational opportunity

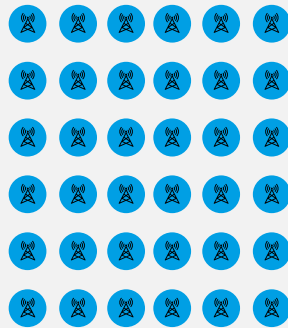
5G INVESTMENTS

Investments driven
by higher frequencies



4G Base Station

Baseband: 700Mhz - 2,100Mhz
Typical range: 2km



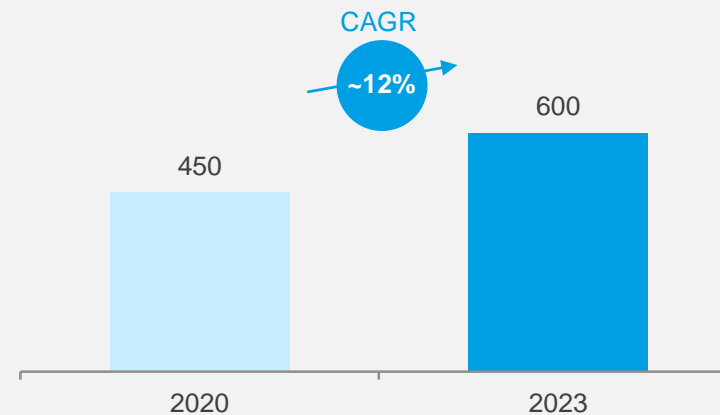
5G Base Station

Baseband: ~4Ghz, ~26Ghz
Typical range: 0.5km

WORLD OPTICAL FIBER INSTALLATIONS

Forecast*

Million fiber kilometers installed per year



5G ROLLOUT

- 4G investments tailing off in anticipation of 5G
- Implementation of 5G from telecom networks and governments
- 5G will be enabling applications like self-driving cars, IoT, AI
- Key benefits vs. 4G: Higher bandwidth (>10,000x more traffic), more devices (10-100x) and much lower latency
- Requires different network infrastructure compared to 4G (5G base stations)