

Division Smart Materials

Introduction

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President Smart Materials



Next Generation Evonik: Embarking on the next phase of our transformation

Sustainability fully integrated into all three strategic levers

Three major strategic levers...

... with sustainability fully integrated ...

... delivering on ambitious targets

Next Generation Portfolio

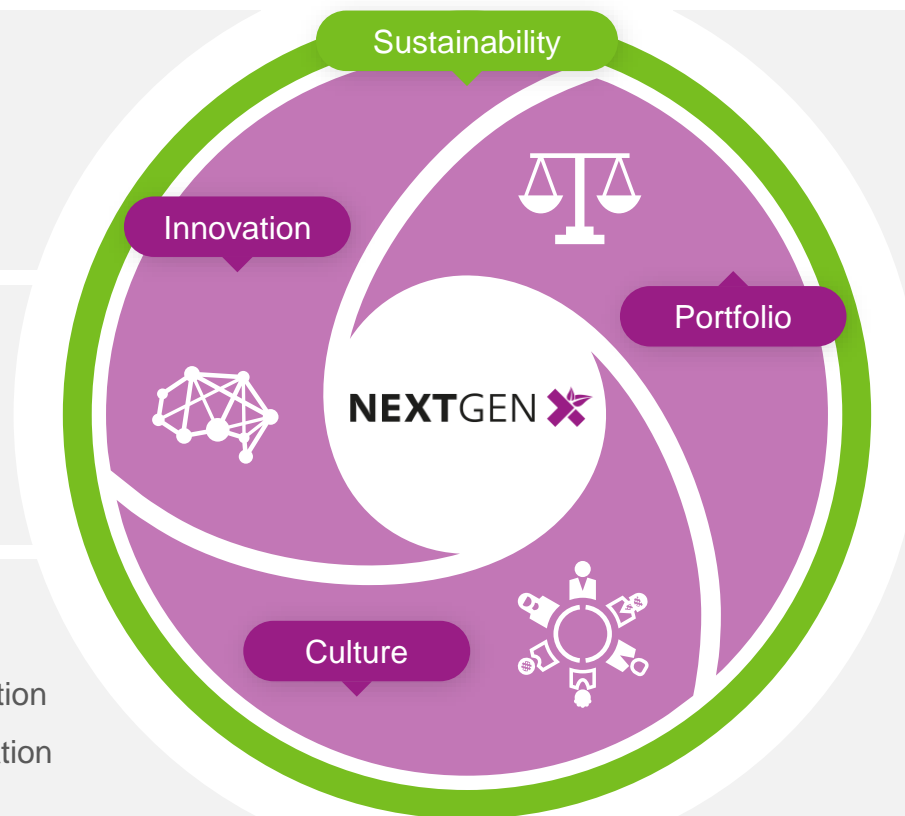
- + Exit Performance Materials
- + Full focus on three attractive growth divisions

Next Generation Innovation

- + €1 bn new sales well on track
- + Growth areas beyond 2025 already launched

Next Generation Culture

- + Diversity as key to successful strategy execution
- + ESG targets integrated into mgmt. compensation



ESG Targets

- + >50% sales share of **NEXTGEN Solutions** ✦
- + -25% CO₂ emission reduction, e.g. via **NEXTGEN Technologies** ✦

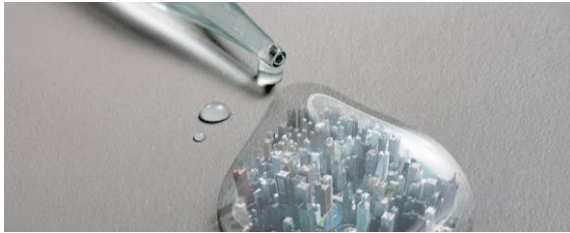
Financial Targets

- + Organic growth >4%
- + EBITDA margin 18-20%
- + ROCE ~11%
- + FCF Conversion >40%

Portfolio transformation – Clear portfolio roles

Focus on three growth divisions - Exit Performance Materials

Specialty Additives



Nutrition & Care



Smart Materials



Performance Materials



Growth focus

- Strong innovation pipeline: ~4% R&D/sales
- High sustainability focus: Expand portfolio share of “Next Generation Solutions”
- Targeted M&A in complementary products and technologies
- Selected efficiency measures to strengthen cost leadership and improve portfolio quality

Exit

- Aiming to find new owners/partners for each of the three businesses in the course of 2023

Smart Materials overview

Focused portfolio on environmentally friendly solutions



1. Adjusted EBITDA margin

2. Prior to restatement for Alcoxides as of 1st Jan, 2023



Smart Solutions.
We find solutions for
the needs of today and
tomorrow.

We are “smart(er)” since...

... we develop innovative solutions

Rohacell

PMI¹-based structural foam at the core of lightweight high-performance fiber composites for demanding aerospace applications



Anion Exchange Membrane (AEM)

Ion-conducting membranes for water electrolysis in alkaline conditions – the more efficient way to green hydrogen



... we tailor our solutions to the customers' needs



>100 individual Silica grades to solve our customers' challenges



High performance polymers: **~500** customer/application-specific products



Specialized polymer powders for 3D printing process allowing for series production of complex and individualized products

... we help our customers with individual know-how and services

840 employees in product, application and process development

Service teams for equipment, installation and full start-up support (e.g. to ensure dosing accuracy for Peracetic Acid in poultry anti-microbial interventions)

80 years of catalysts development expertise

External partners contributing in close cooperation to technology development

1. Polymethacrylimide.

Growth: Focus on attractive markets with smart solutions

Main end-markets served

**Automotive/
Transportation**
(~20%)



**Chemicals,
Oil & Gas** (~15%)



Environmental
(~20%)



**Consumer
Goods** (~10%)



Smart Materials growth fields

Future Mobility



Eco-Solutions



Sustainability as growth driver

~70% 

of Innovation Pipeline
R&D Budget were spent on
Next Generation Solutions



Grow Sales
with NextGen Solutions




Growth from Innovation

Above-average growth of existing “Next Generation Solutions”


Growth fields addressing our four Sustainability Focus Areas

Future Mobility solutions


- Lightweight applications: PA12 portfolio
- Batteries: additives for electrodes / separators
- “Green tire” technology



Excel® technology for catalysts




- Rejuvenation of catalysts avoids waste and reduces CO2 by >50%
- Excel® technology to reduce the CO2 footprint of hydro-processing in refineries




Active Oxygens for food safety

- Environmentally friendly oxidizer for food sanitation meeting stricter governmental regulations
- Hydrogen peroxide purified and diluted to various concentrations



Biogas membrane

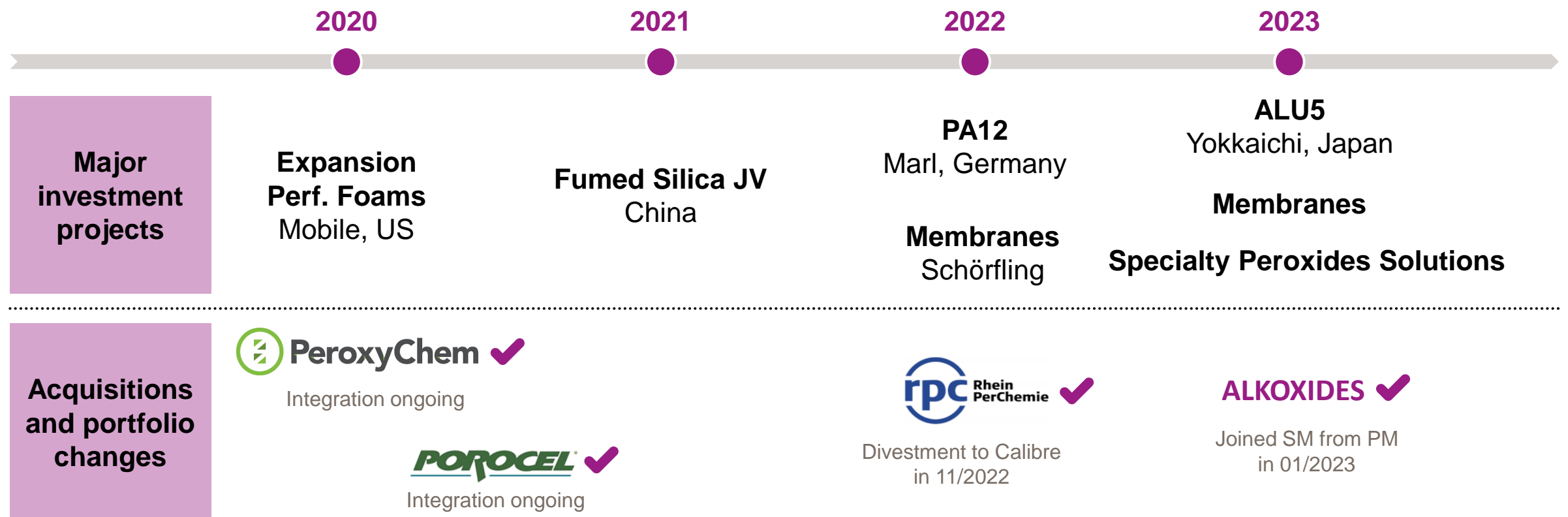


- Superior biogas upgrading with hollow-fiber membranes
- Superior methane efficiency and low methane slip

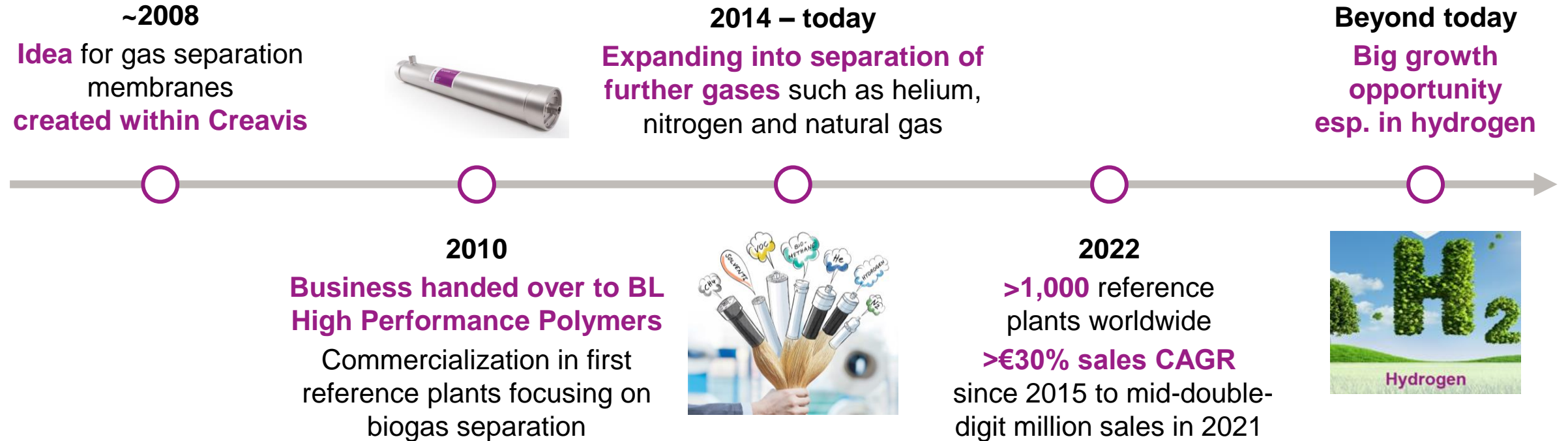
Capital allocation into our green transformation

Priority on growth investments and targeted portfolio changes

Milestones / Major strategic measures in Smart Materials



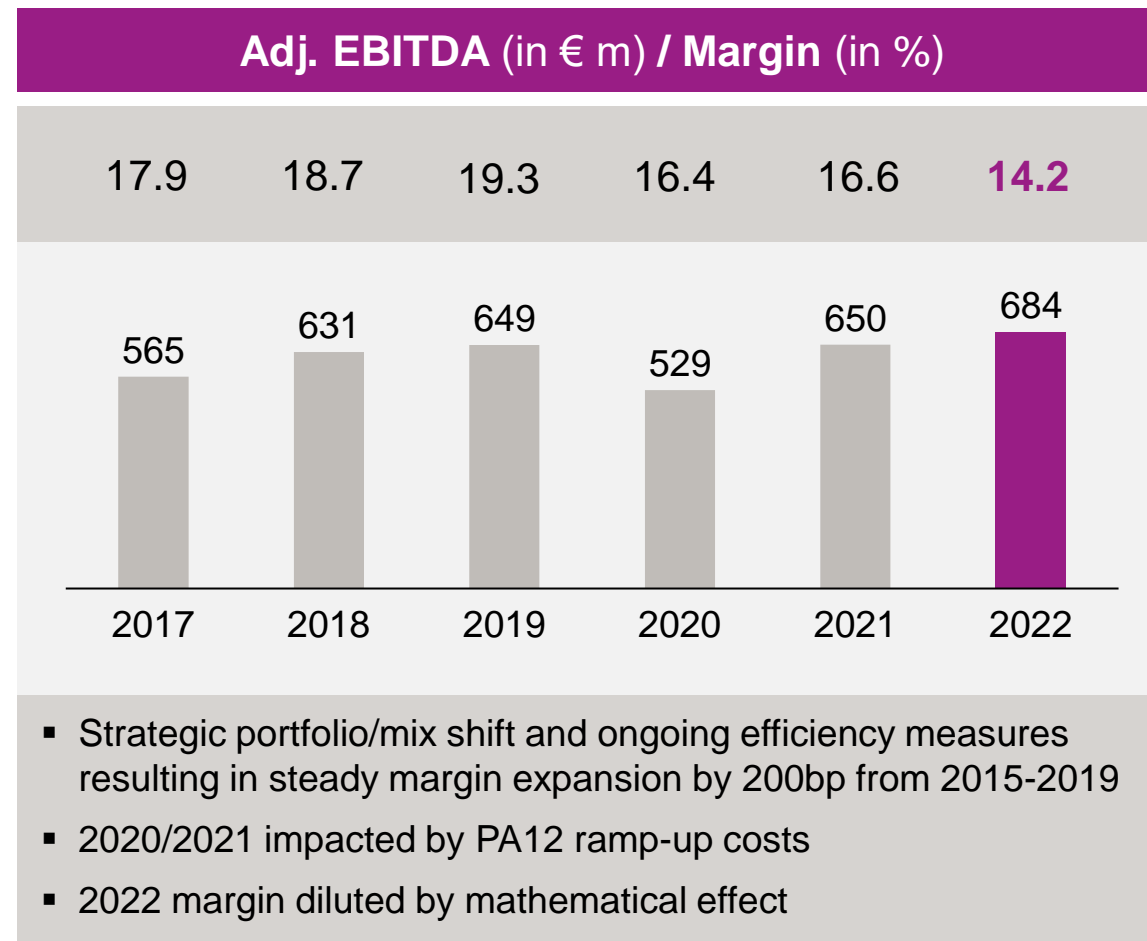
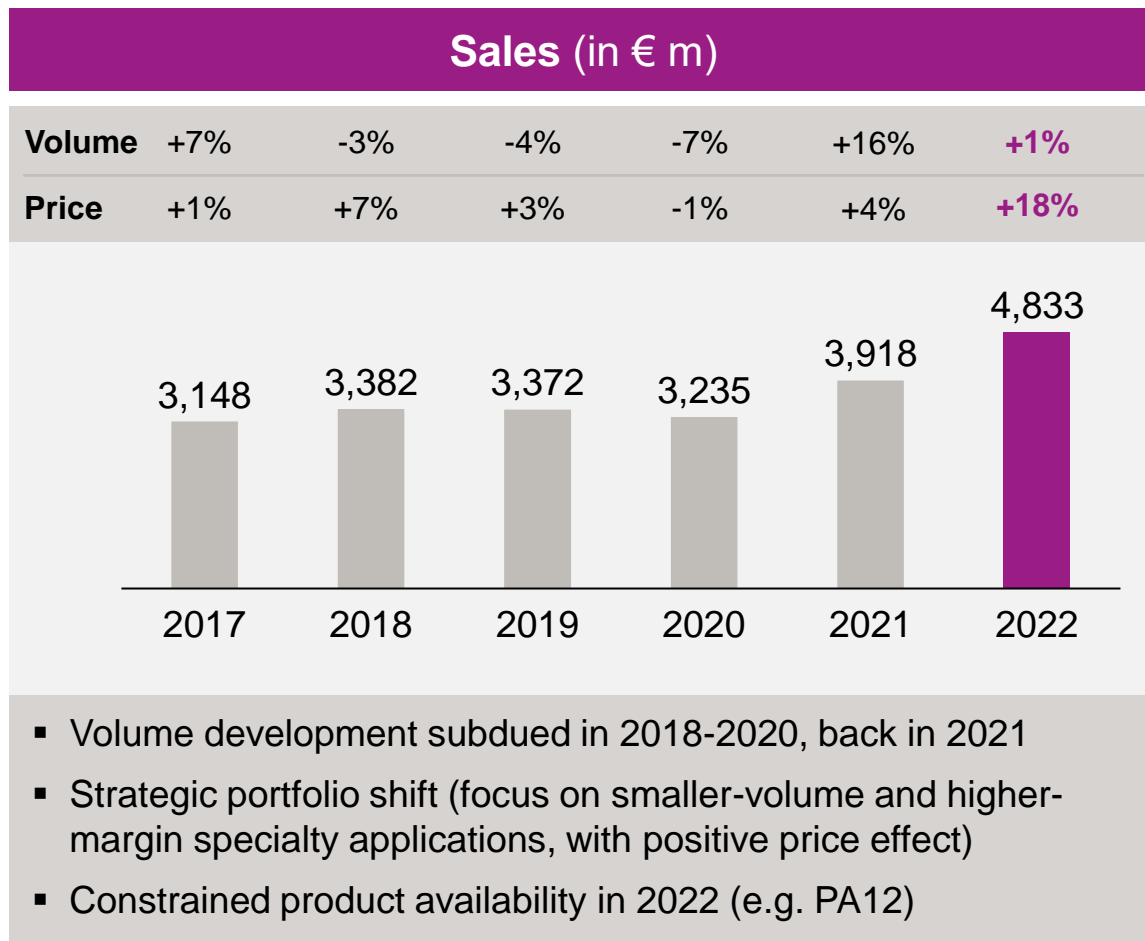
Innovation Growth Field “Membranes” as blueprint for future innovation



Continuous RD&I efforts to improve product characteristics and scope of application

Our financial track record

Strong contributor to the Group



Ambitious financial targets

... for Evonik and Smart Materials

Group Targets

Organic sales growth CAGR² **>4%**

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

Cash Conversion ratio of³ **>40%**

ROCE well above Cost of Capital **~11%**

Reliable and sustainably growing dividend

Solid investment grade rating

Smart Materials Targets



Next Generation Solutions¹

>50%

EBITDA margin

~20%

ROCE

>11%

1: Products and solutions with a clearly positive sustainability profile that is above or well above the market reference level | 2: In growth divisions | 3: Cash Conversion ratio defined as FCF/Adj. EBITDA



EVONIK

Leading Beyond Chemistry

Smart Materials – Two strong technology platforms

Inorganic Materials and Hightech Polymers

Inorganic Materials

ACTIVE OXYGENS



CATALYSTS



Hightech Polymers

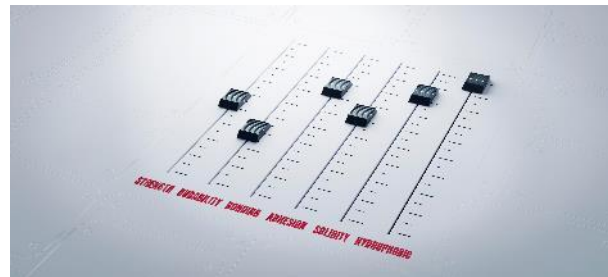
COATING & ADHESIVE RESINS



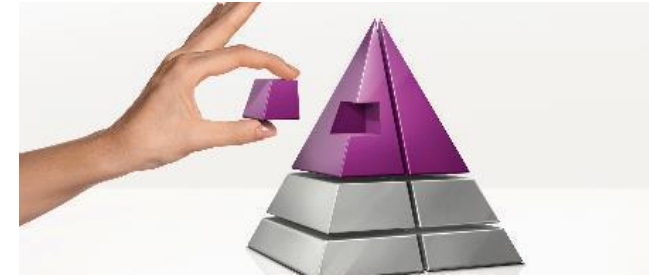
SILICA



SILANES



HIGH PERFORMANCE POLYMERS



Innovation: R&D as key growth driver

Cooperation, focus and global setup

Innovation approach

1. Solutions developed with key customers in close partnerships, e.g.



2. Two strong technology platforms

Inorganics

Polymers

3. Further strengthen our presence in Asia

4. Two innovation growth fields at the core



Additive Manufacturing



Membranes

Key facts

R&D budget
~4% of sales

13 R&D sites

3 in NAFTA
6 in Europe
4 in Asia

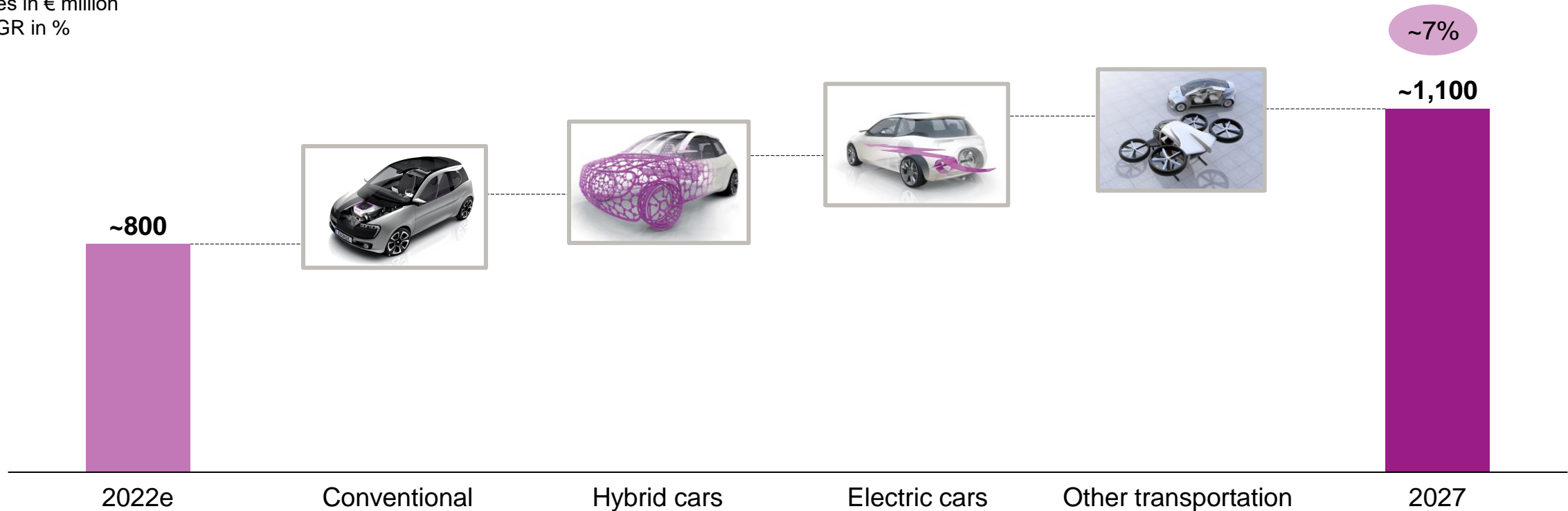
840 employees
in product, application
and process
development

“Future Mobility” growth drivers

Growth to around €1.1 billion sales by 2027

Innovate mobility – we provide the chemistry

Sales in € million
CAGR in %



How Smart Materials is shaping the future car

Solutions in today's car

Conventional car today

High-performance fuel lines

Low rolling resistance tires

Battery additives

Polymer - Lightweight composites

Advanced adhesives & sealants solutions

Smart Materials' solutions
in a car today represent a value of

~€30



Note: Estimation based on BLs' survey.

How Smart Materials is shaping the future car

Solutions in hybrid and full battery car

Electric/Electronic Components

e.g. power busbar insulation

Thermal Management

e.g. battery cooling lines

Tires

Reduced rolling resistance for extended range
Higher abrasion resistance for EV acceleration

Battery

Electrode materials & additives for separators

Hybrid Car

In a hybrid car,
Smart Materials' existing solutions
with a value potential of

~€45



Full Battery Car

In a full battery car,
Smart Materials' existing solutions
with a value potential of

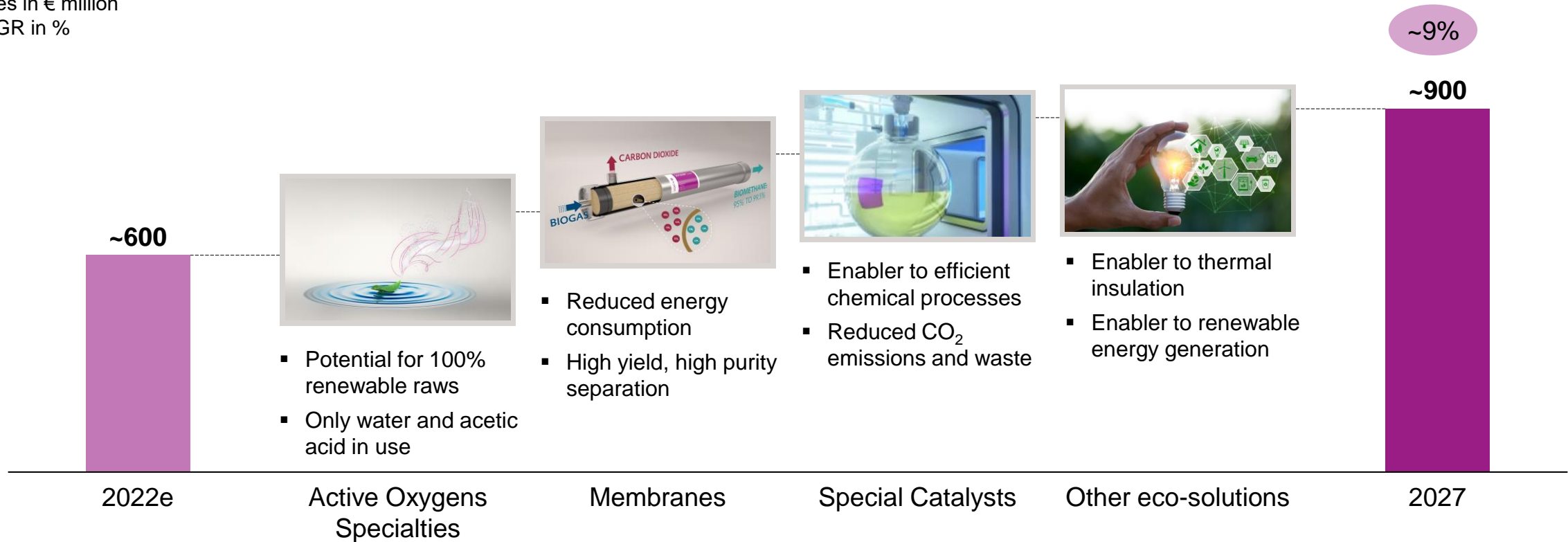
~€70

“Eco-Solutions” growth drivers

Growth to around €900 million sales by 2027

Focused on specialty end markets with strong secular growth trends

Sales in € million
CAGR in %

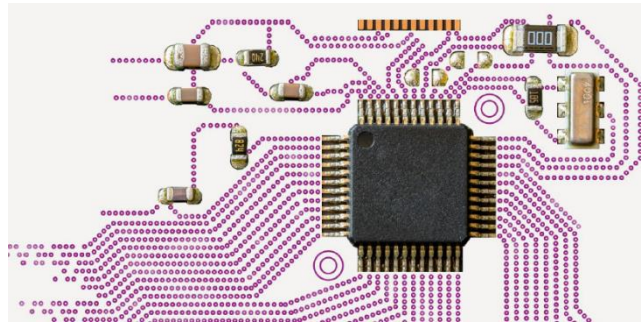


1. Not incl. €300 m Alcoxides transfer from PM to SM as of 1st January 2023

Hydrogen Peroxide and Peracetic Acid Specialties

Diverse markets addressed with strong momentum

Ultra-high purity for wafer-cleaning



PAA for waste-water disinfection



PAA / H₂O₂ for food safety



Success factors

- Portfolio extension with PeroxyChem into dedicated ultra pure electronic-grade H₂O₂
- Forward integration moving closer to the end customers
- Global footprint ensuring reliable supply

- Leading PAA supplier in the municipal water treatment industry
- Improved market access as integrated solution provider for water treatment

- Solution provider for safe and effective food disinfectant processing & packaging
- Global capabilities to partner with the leading equipment providers of aseptic packaging solutions

Demand drivers






- Trend towards smaller electronic device geometries
- Increasing number of process steps require ultra-high purity agents

- Increasing demand for wastewater treatment solutions due to demographics and climate
- Tightening regulations require non-toxic, environmentally friendly solutions

- Growing population boosts demand for proteins & trend towards packaged food
- Increased focus on sustainable and effective solutions

Membranes: Overview of different gas separation markets

Portfolio built on strong technology platforms, innovation, global partner network

Membranes					
	Biogas	Process Gases	OBIGGS	Natural Gas	OSN/VOC
Market segment					
	Heat & Power – Transportation	Oil & Gas – Petrochemicals – Food & Beverage	Aircraft	Oil & Gas	Oil & Gas – Natural oils – Petrochemicals – Bio-Diesel
Evonik brands	SEPURAN® Green	SEPURAN® Noble	SEPURAN® N ₂	SEPURAN® NG	PuraMem® PuraMem® VOC

- **Attractive markets with global access:** Growth driven by increasing needs for sustainable energy supply
- **Strong technology platforms:** Backward integration, high-performance polymer expertise
- **Partnerships:** Global partner network to jointly shape further market needs with highly innovative separation technologies

Smart Materials: Sales split & product examples

