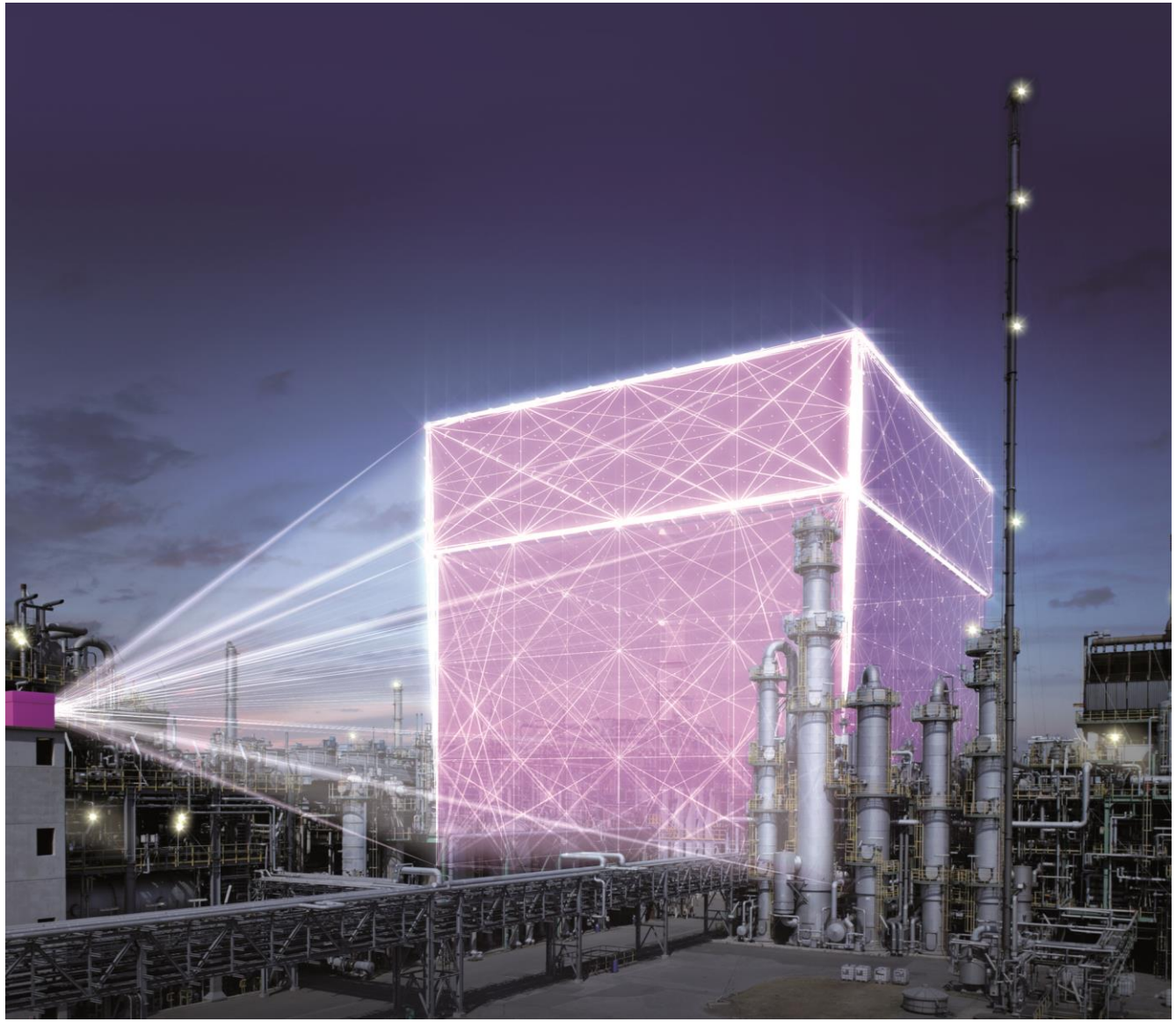
Acquisition of Porocel

26 August 2020



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Porocel acquisition highlights

- ✓ Accelerated implementation of the growth strategy of Evonik's Catalysts business
- ✓ Complementary fit to Evonik's existing catalyst portfolio
- ✓ Available production capacities of Porocel offer considerable growth opportunities
- ✓ Catalyst rejuvenation technology reduces CO_2 emissions and supports circular economy
- ✓ EBITDA margin of ~23% – clearly above Evonik's group margin target range
- ✓ Attractive valuation with EV/EBITDA multiple of 9.1x

Porocel – Overview

Leading global provider of specialty catalysts and related services

Porocel

- Headquarter in Houston, Texas (USA)
- Ownership: privately held company
- Headcount: ~300 globally
- Locations: 6 manufacturing facilities in USA, Canada, Luxemburg, Singapore and China

Key products:

- Full suite of critical hydro-processing catalyst services, including a patented technology for highly efficient rejuvenation of desulfurization catalysts
- Leading supplier of purification adsorbents and sulfur recovery catalysts used in the petrochemical, fine chemicals and petroleum refining industries

POROCEL
ADSORBENTS, CATALYSTS & SERVICES

Sales 2019:

~$100 m

adj. EBITDA 2019:

~$23 m

adj. EBITDA margin: ~23%

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Acquisition of Porocel

Excellent complementary fit with Evonik's catalysts business

Evonik catalyst business

- Strong **catalyst customization know-how** and scale-up competencies
- Well positioned in **"Fine Chemicals & Intermediates"** segment for e.g. agriculture, food, pharmaceuticals
- **Sales** and **EBITDA** CAGR of **~10%** since 2014 – significantly above overall market growth

Porocel catalyst business

- Leading market position in the field of **rejuvenation of desulfurization** catalysts
- Core markets with attractive growth and trends towards **sustainability and circular economy**
- Established relationships with **blue-chip customers in refining & petrochemicals**
- Access to **available production capacities** with high economies of scale

Acceleration of growth strategy of Evonik's catalyst business
Positioning from multi-niche to a **leading supplier** in the chemical catalyst market

Porocel product portfolio of catalysts and adsorbents enables reactor filling from one source

(Rejuvenated) de-sulfurisation catalysts

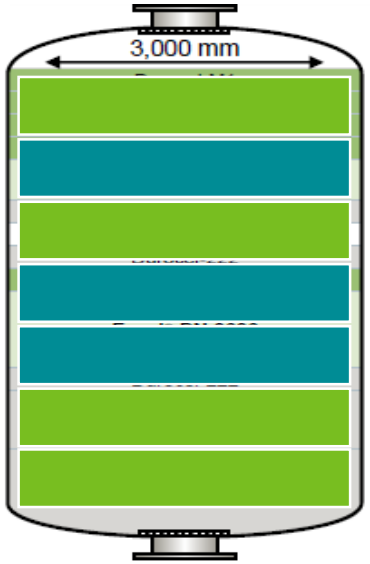
- Essential for the production of **low-sulfur / non-sulfur fuels and petrochemicals**
- Basic operation in refineries to remove sulfur and nitrogen compounds and other impurities
- The **rejuvenation of used de-sulfurisation catalysts** not only offers cost advantages but also makes a significant contribution to resource conservation

+

Adsorbents and catalysts for sulfur recovery

- Adsorbents for the purification of raw material streams in modern refineries
- Claus catalysts for the conversion of hydrogen sulfide into solid sulfur complete the product portfolio

Porocel offers reactor filling from one source



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Porocel addresses macro trends of sustainability and circular economy

Porocel addresses trends towards…

… **Low-sulfur fuel:** Stricter environmental regulations resulting in rising demand for desulfurization catalysts

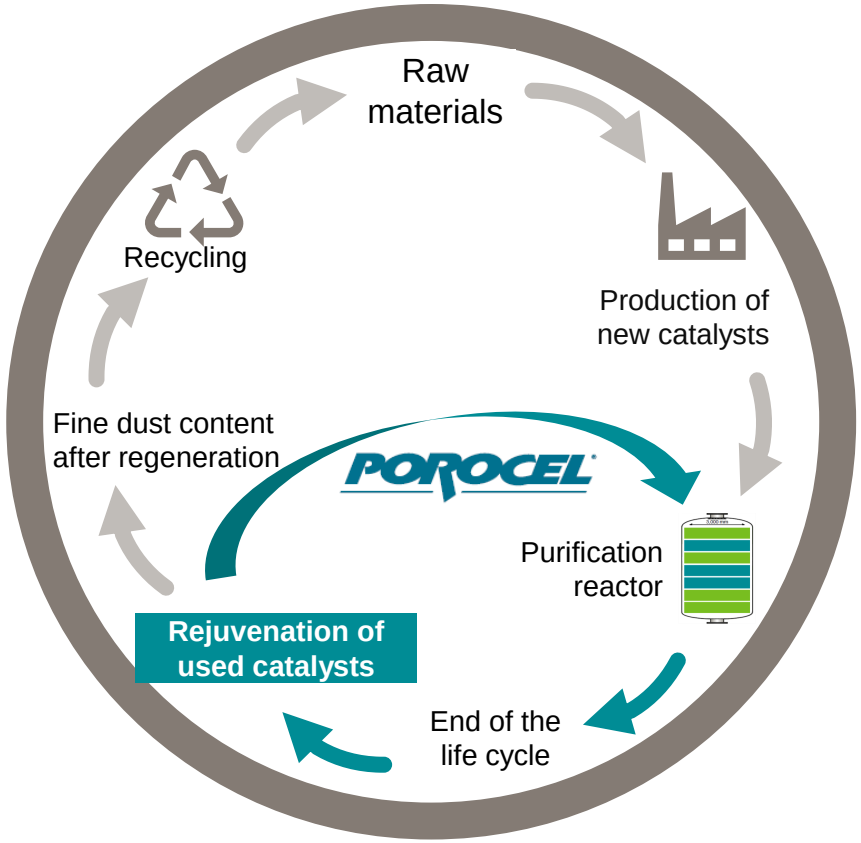
… **Circular economy & Decarbonization:** Rejuvenation catalysts reduce carbon-dioxide emissions by more than 50 percent compared with the production of new desulfurization catalysts

… **Trend from oil-based to bio-based or recycled refinery raw materials** requiring comprehensive purification expertise of the material flows (e.g. desulfurisation)

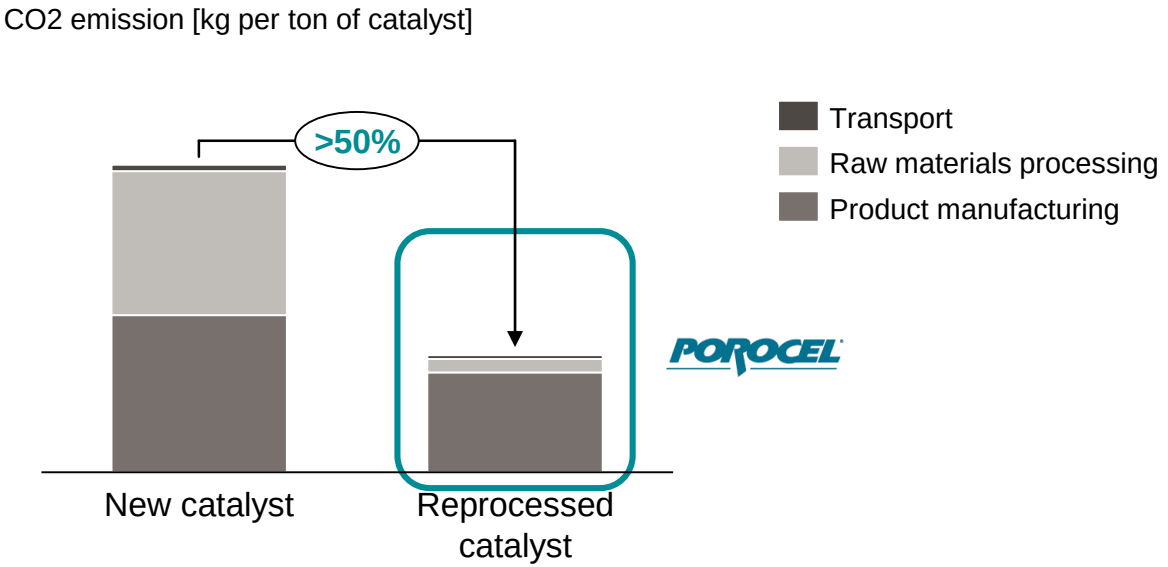
Spotlight – Circular economy & Decarbonization

Rejuvenation catalysts contribute to considerable CO2 savings

Rejuvenation of used catalysts saves resources



Comparison of CO_2 emissions from catalyst production



- Rejuvenated catalysts save >50% CO_2 compared to new catalyst
- Since 2004, Porocel products have saved ~1 million tons of CO_2

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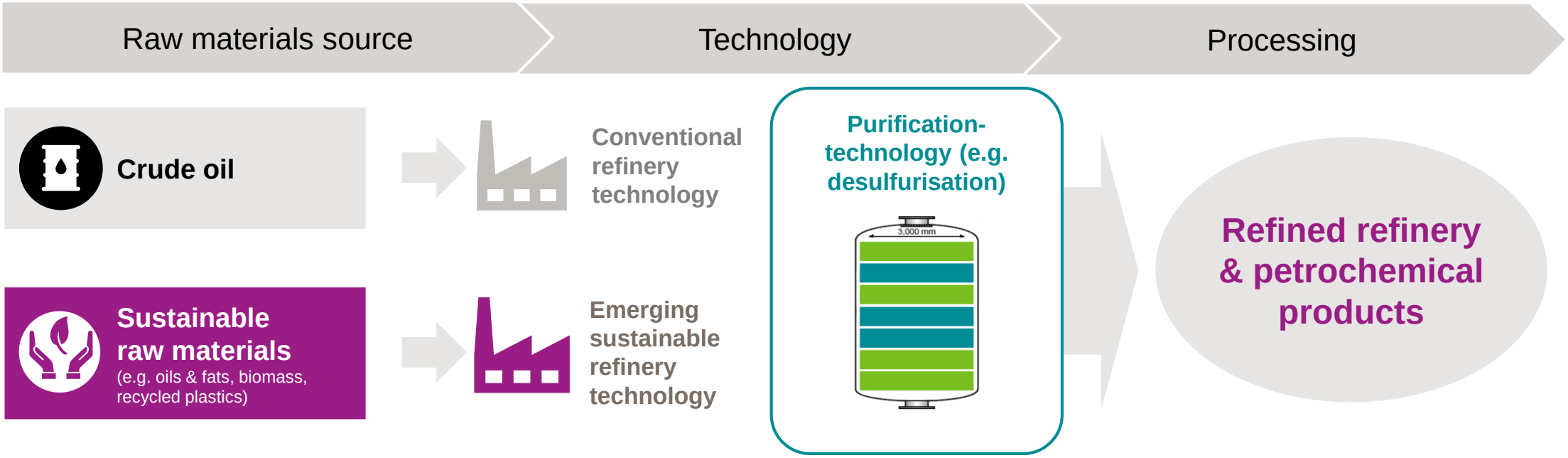
Spotlight – Porocel purification technology

Technology needed for crude oil and sustainable raw material sources



- Long-term **trend from oil-based to bio-based** or recycled refinery raw materials
- Requirement for purification of the material flows (e.g. desulfurisation)
- Porocel with comprehensive purification expertise and comprehensive product portfolio for this key technology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Acquisition of Porocel

Access to attractive end markets and free capacities as growth drivers

1. **Expansion of technology platforms**
2. **Significantly improved access to the refining and petrochemical market**
3. **Use of free production capacities for further growth in fixed bed catalysts**

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1
- Hydro-processing catalyst regeneration and rejuvenation
- Adsorbents, purification, De-sulfurization

3
- Toll processing & custom catalysts
- Fixed bed catalysts
- Olefin-polymerization catalysts
- Activated metal catalyst
- Precious metal catalysts

End markets

2 **Refinery**

Petrochemical

Polymers

Fine Chemistry & Intermediates

Chromatography

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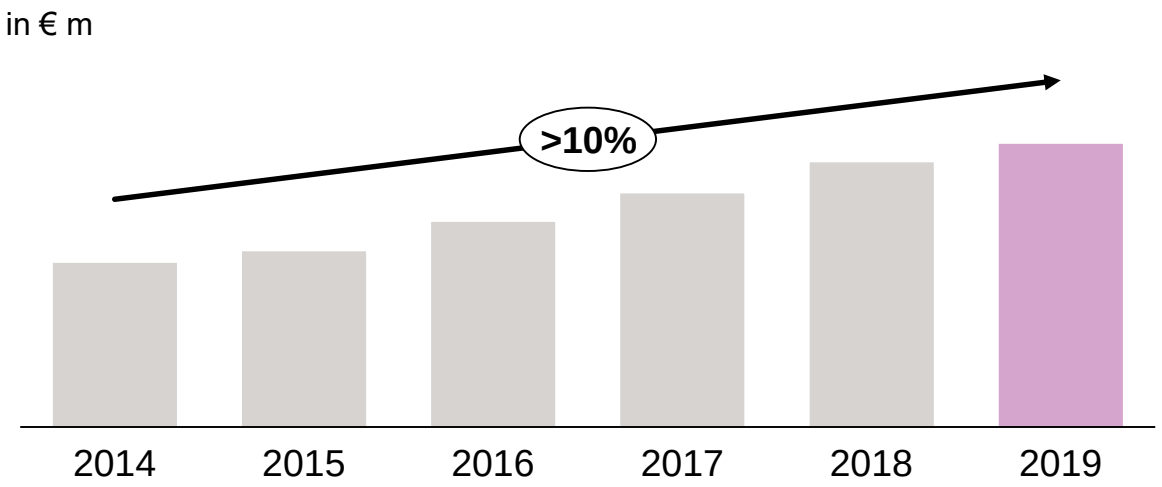
Spotlight – Evonik Catalyst business

Sales development Catalyst business



- Catalysts as part of growth division Smart Materials
- >10% CAGR for EBITDA and sales since 2014

Market exposure Catalyst business

Fine Chemicals & Intermediates	Polymers	Petrochemicals
		
▪ Agriculture ▪ Feed & Food ▪ Pharmaceuticals	▪ Polythylene ▪ Polypropylene	▪ Intermediates ▪ Solvents ▪ Monomers ▪ De-sulfurisation
Positioning		
		
Market growth		
~3%	**~4%**	**>4%**

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Combined productions sites

Porocel strengthens the global presence of Evonik's catalysts business

Production sites Evonik and Porocel

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Catalysts play an important role in global key industries
>80% of all chemical products are made by use of a catalyst

Catalysts …

- **… accelerate chemical processes** while not being consumed during the reaction
- **… steer chemical reactions** towards the desired products and avoid by-products and waste
- … enable efficient chemical processes by using **less feedstock** and **reduced energy consumption**
- … are ~**1% of costs of the respective product** value and offer **resilient market growth of 4% p.a.**

Key end markets

Chemical catalysts

Refining catalysts

Environmental catalysts

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