The innovation power of specialty chemicals

Claas Klasen | Sept. 20, 2019, Hangzhou





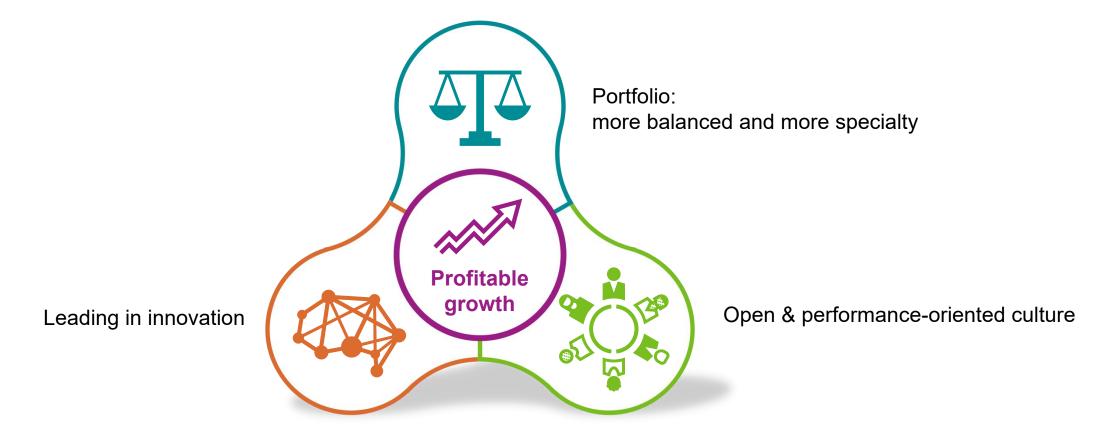
A strong basis in Specialty Chemicals





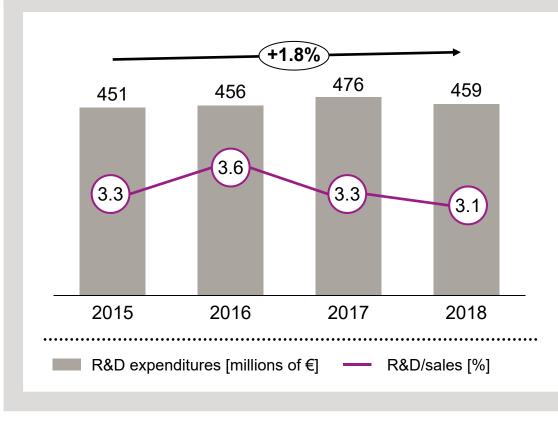
1. Sales with top 1-3 market position by sales, production volume or capacity (depending on available data)

Innovation is critical to profitable growth in specialty chemicals





Our foundation is good: how much we spend



R&D expenditures¹ and **R&D** rate





¹ Starting in 2018, includes costs for Corporate Innovation; adjusted values for 2015 – 2017 |

Innovation strategy: how we're thinking ahead

Our mission

Leading in innovation

Linking innovation with customer proximity

- Efficient, global
- Targeted and fast
- Close to the customer
- Working with the customer

Focusing on innovation growth fields

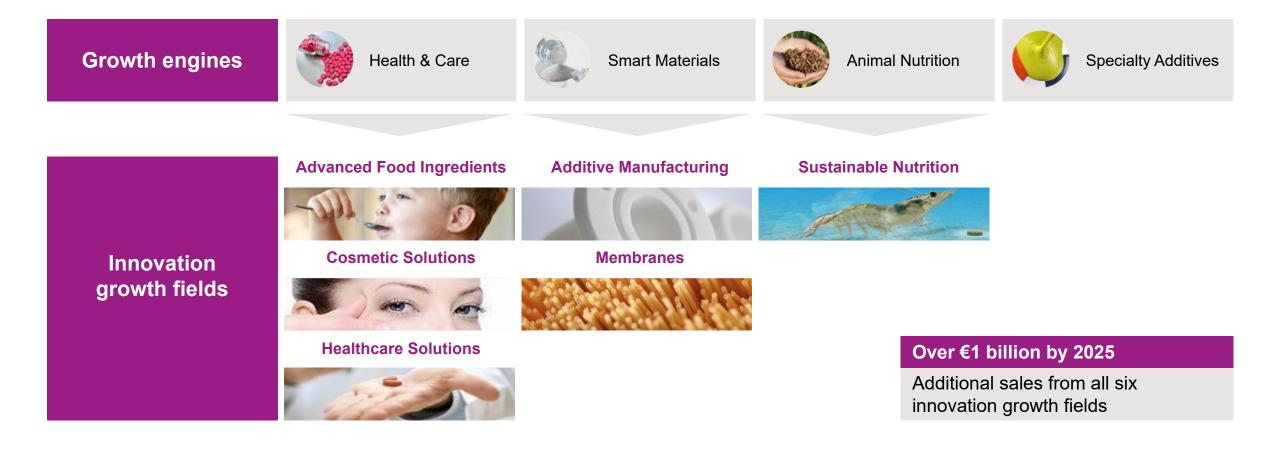
- Integrated within Evonik's growth engines
- Targets for issues and markets that are new to Evonik
- Nucleus for medium- and longterm sales growth

One step ahead of social developments

- Open, sustainable, digital
- Anticipating long-term customer expectations
- Venture capital
- Corporate Foresight



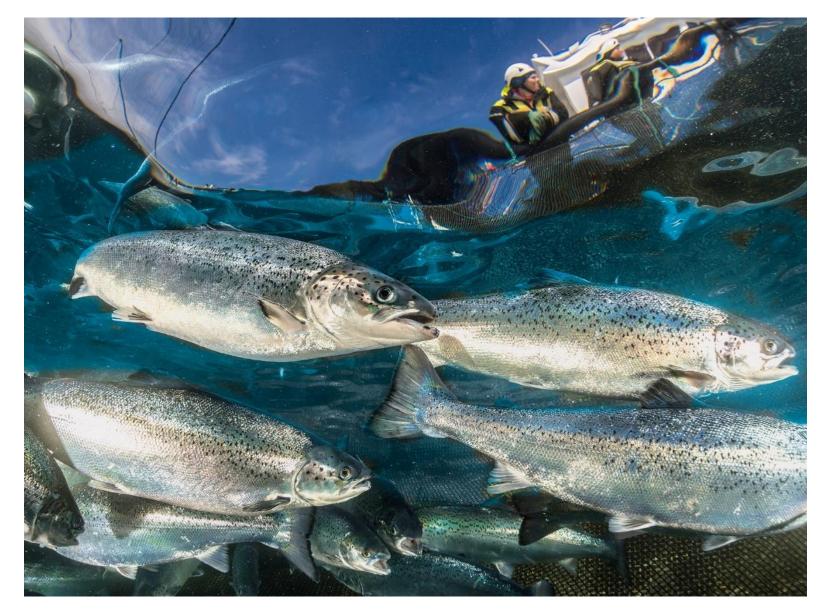
Innovation growth fields: what we emphasize





High-quality algae oil for salmon farming

- Veramaris is a joint venture between Evonik and DSM
- Makes sustainable growth possible in the aquaculture industry
- Biotechnology route to omega-3 fatty acids EPA and DHA based on renewable raw materials
- New facilities begins production in July 2019





SEPURAN®

Hollow-fiber membranes for efficient gas separation

- Highly efficient, innovative gas separation solutions
- Became a global provider in less than 10 years with more than 300 references
- Strategic partnerships with leading system integrators such as The Linde Group





RESOMER[®] biomaterials

Medical devices for orthopedic applications

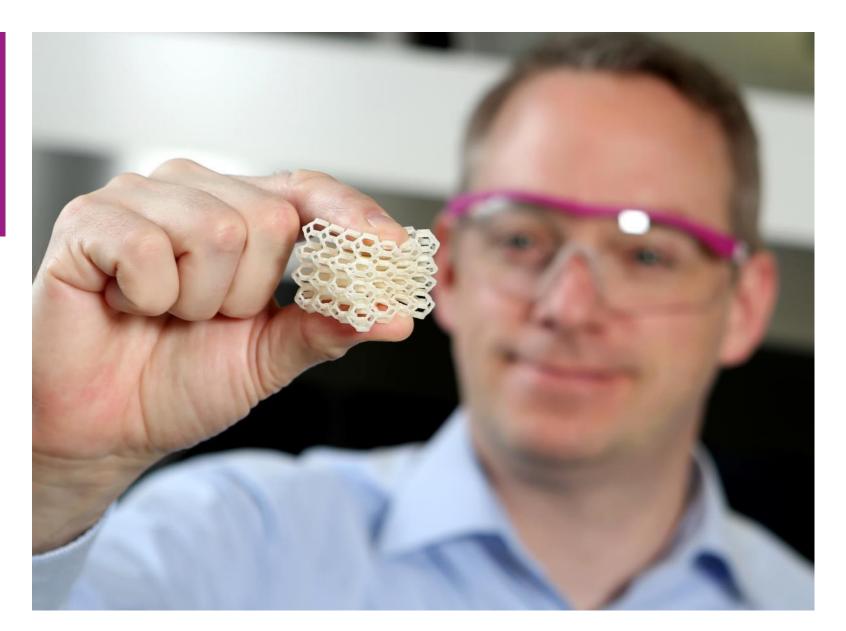
- 100% biodegradable in the body
- More pleasant for patients
- Faster patient recovery
- Easy to process during final product development
- Reduces health care costs





High-performance materials for 3D printing

- New products: PEEK filament for 3D medical implants
- Flexible plastics based on PEBA
- Partnered with global printer manufacturers (EOS, hp, 3D Systems)
- Market leader for materials used in powder-based 3D printing processes
- New venture capital investment into Chinese startup





Transforming from "Made in China" to "Made for China"

