

## Sector review

# Life Sciences

Our strategy is to expand Life Sciences to empower biologics delivery, enabling the move from small chemically synthesised molecules to large and complex biologics, a megatrend which is transforming the pharmaceutical market and which will transform agriculture.



## Business units

### Life Sciences SDG alignment:

Contributes to 18  
targets across 9  
of the 17 goals



Total number  
of Pharma  
customers:

>5,000

Partner to major  
crop science  
companies and a  
growing number  
of small and  
medium-sized  
customers

### Agriculture

#### Crop Protection

(c.30% of sector sales)

Crop Protection has leading relationships with the major crop science companies, offering ingredients that improve performance and delivery of crop formulations. Our strategy is to deliver sustainable solutions using technology platforms and expertise in complex crop formulation systems, improving yields, accelerating the transition to biopesticides and contributing to food security.

#### Seed Enhancement

(c.15% of sector sales)

Seed Enhancement leverages our leadership in seed coating systems and enhancement technologies to improve germination, stimulate healthy development of seeds and increase crop yield. Our strategy is to be the leader in sustainable seed enhancement solutions for both field and vegetable crops.

### Pharma

(c.55% of sector sales)

Pharma targets leadership in biologics drug delivery, delivering drug and vaccine systems through synthesis, system formulation and application technology know-how. Our innovation portfolio is designed to selectively support customers, large and small, who are driving emerging pharma technologies, and to unlock value from our technology strengths. Pharma comprises three technology platforms:

**Protein/Small Molecule Delivery** has an established record of providing delivery systems for complex protein drugs. These large, sensitive molecules are typically injected. Our differentiated range delivers the highest purity excipients to customers, including 'Big Pharma'. Our strategy is to support established small molecule drugs and develop excipients for complex protein and monoclonal antibody (mAb) applications, and expand our portfolio of high purity reagents for bioprocessing.

**Adjuvant Systems** is the most advanced third-party supplier of adjuvants (immune response boosters) for vaccines. There is a large, recognised need for innovation in vaccine adjuvant systems as a result of the development of novel therapeutic vaccines that cure diseases previously only treatable with symptomatic treatments. Croda is well-positioned with the broadest range of vaccine adjuvant systems and is embedded within vaccine pipelines across many indications.

Our strategy is to accelerate use of innovative adjuvant systems, comprising multiple building blocks, supporting WHO vaccine programmes and the development of future preventative and therapeutic vaccines.

**Nucleic Acid Delivery** was created after our 2020 acquisition of Avanti and enabled the world's first commercial lipid system for mRNA vaccines for Covid-19. Our innovation pipeline looks to improve lipid delivery systems and create new transfection agents for cell and gene therapy. We are included in a high proportion of the rich pipeline of nucleic acid drugs that are in development and due to commercialise from 2025.

In addition, our **Avanti Research** catalogue continues as a distinct strategic arm targeting early-stage R&D and academic relationships. This embeds our technologies in clinical development and, if successful, we position ourselves as the partner of choice for commercialisation.