

Smart science  
to improve lives™



**CRODA**

Annual Report and Accounts 2020

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## Highlights

### Sales

£1,390.3m

2019: £1,377.7m

### Core Business sales growth (constant currency)

+2.3%

2019: -2.3%

### IFRS profit before tax (PBT)

£269.5m

2019: £302.3m

### Adjusted PBT growth (constant currency)

-4.8%

2019: -3.7%

### Ordinary dividend (proposed full year)

+1.1%

2019: +3.4%

### NPP % Group sales (constant currency)

27.4%

2019: 28.1%

### Energy from non-fossil fuels

25.0%

2019: 22.7%

### Safety (Total Recordable Injury Rate\*)

0.54

2019: 0.55

\* excluding acquisitions and COVID-19.

## Croda employees who feature on our front cover:

Siau Hoong Chiew, Lead Quality Control Analyst, Croda Singapore  
Marta Dobrowolska-Haywood, Head of Research and Technology, Incotec  
Thaddeus Anim-Somuah, Engineering Manager – Projects, Croda Gouda

Some photography used within this report was taken prior to the COVID-19 pandemic.

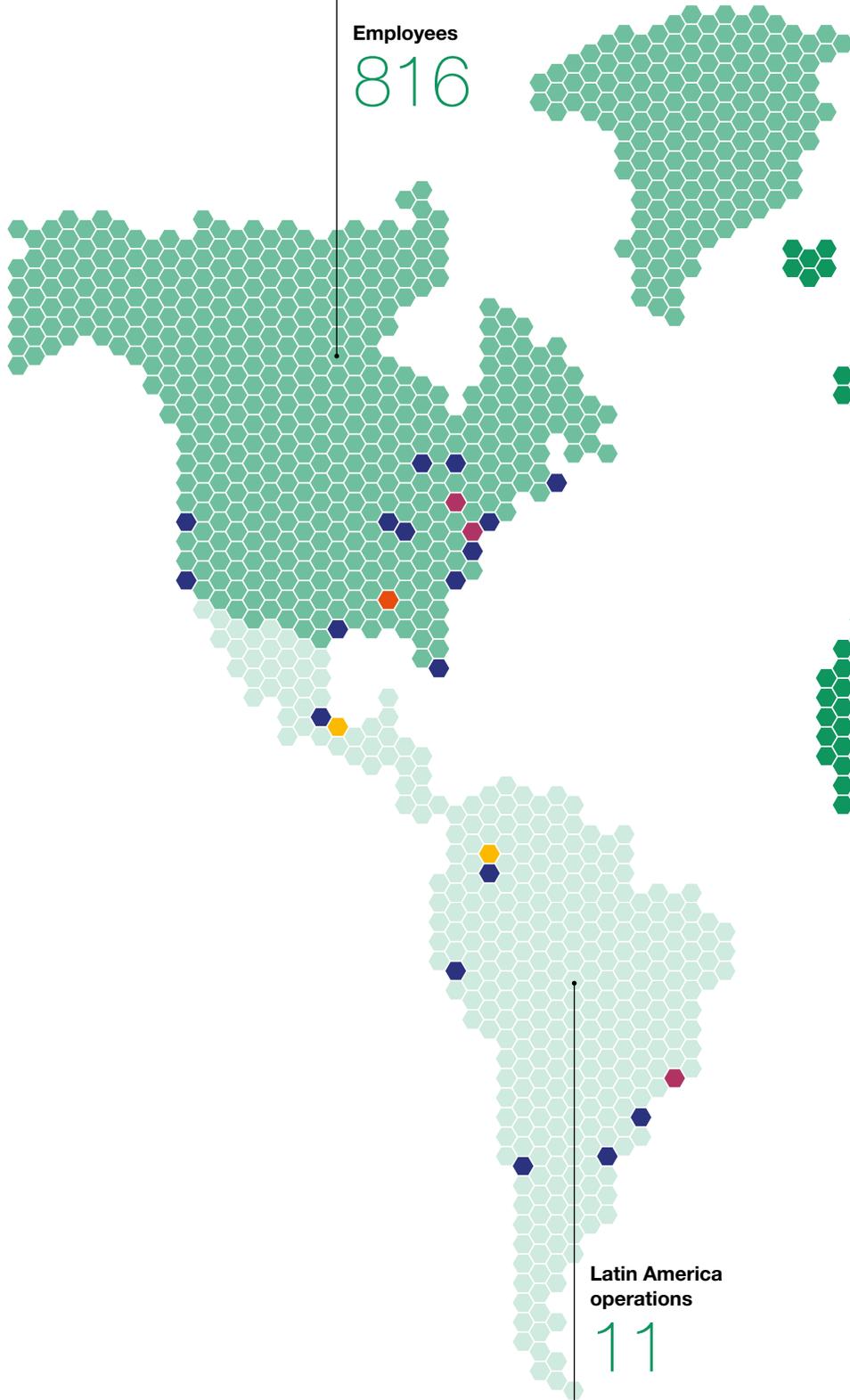
# Our global operations

North America operations

10

Employees

816



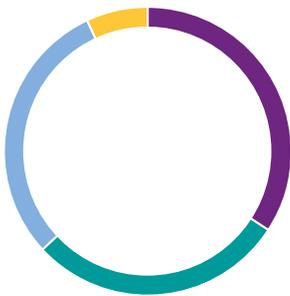
Latin America operations

11

Employees

381

Sales by sector



● Personal Care*	£475.9m
● Life Sciences	£401.6m
● Performance Technologies	£416.4m
● Industrial Chemicals	£96.4m

\* Consumer Care from 2021 onwards

Sales by region



● Europe, Middle East & Africa	£562.4m
● North America	£387.0m
● Asia	£309.3m
● Latin America	£131.6m

Western Europe operations

27

Employees

2,784

Asia operations

27

Employees

1,484

Eastern Europe, Middle East & Africa operations

10

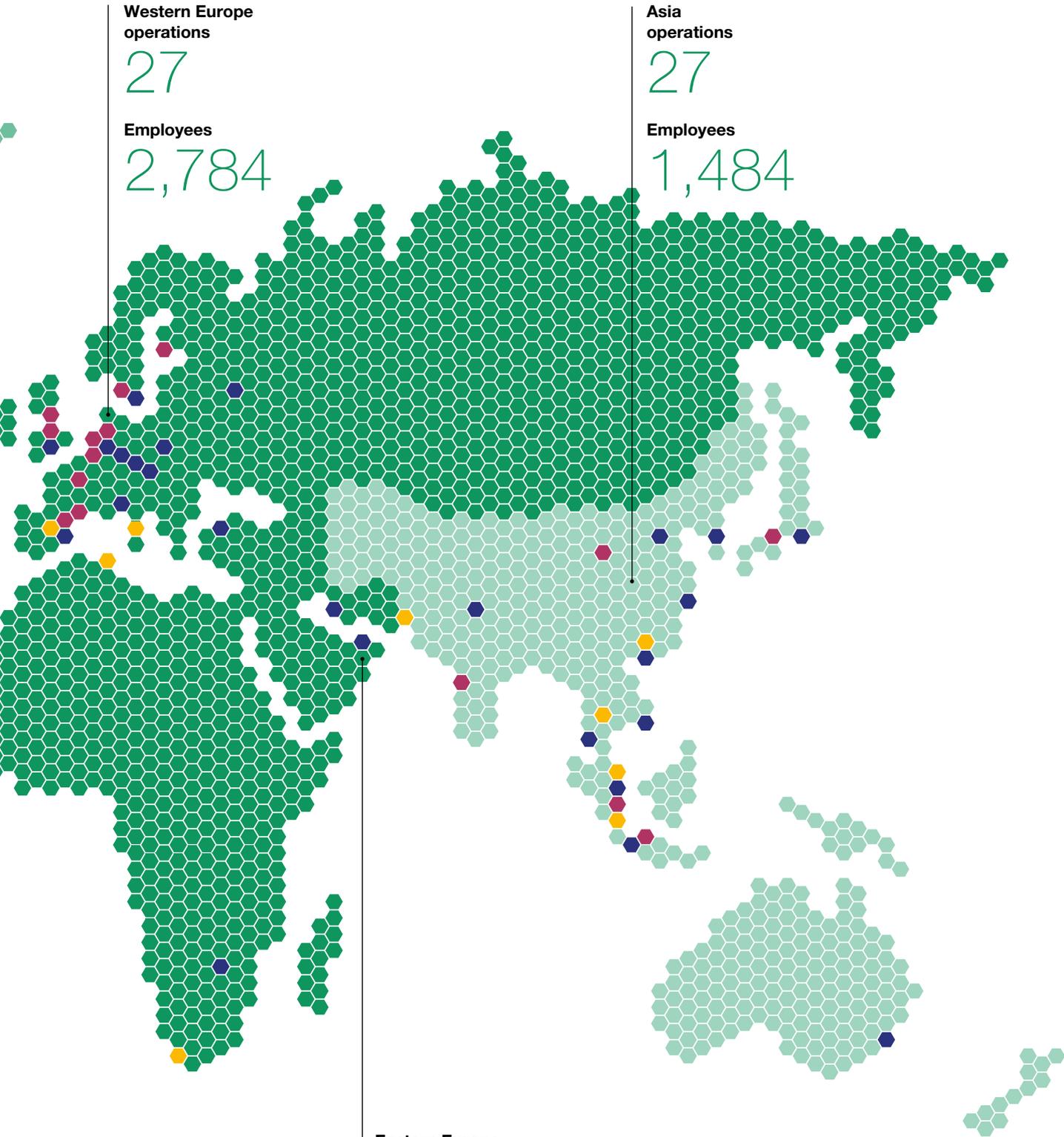
Employees

219

Key

-  Croda R&D centres and offices
-  Croda principal manufacturing sites
-  Iberchem manufacturing sites
-  Avanti location

Note: some hexagons may represent multiple site locations. Operation and employee numbers include Iberchem and Avanti.



At Croda, we have made it our Purpose to use our Smart science to improve lives™. This has been a tough year for everyone, but this clarity of Purpose has been our guide, ensuring our commitment to our customers and to one another. We have kept our people safe, while maintaining supplies for our customers and delivering key components for the world's first approved COVID-19 vaccine.

This year, more than ever, we felt the value of working closely with partners and supporting every one of the stakeholders in our ecosystem. Our continued success and positive impact on the world is driven by the strength of these relationships with others.

## Our approach

We use smart science to create high-performance ingredients and technologies that improve lives.

# Smart science

At Croda our Purpose is to use Smart science to improve lives™, enabled by our distinctive values-led culture that governs how we work with one another and guides our relationships with all of our partners. We combine our knowledge, passion and entrepreneurial spirit to create, make and sell speciality ingredients that are relied on by industries and consumers everywhere.

## Through our strategy

Our corporate strategy sets out the high-level themes that will help us to deliver our Purpose. A focus on growth, innovation and sustainability means that our smart science can help our customers to deliver both their consumer and sustainability commitments, while we achieve our own, creating sustainable value for our shareholders.

→ See page 22



Consistent top and bottom-line growth, with profit growing ahead of sales, ahead of volume.

The lifeblood of our business, we seek to increase the proportion of NPP (New & Protected Products) that we sell.

Aligning our business with our Purpose and accelerating our customers' transition to sustainable ingredients.

## Through the markets we serve

Our market focus targets Consumer Care, Life Sciences and Performance Technologies as we look to extend the reach of our smart science to consumers everywhere. From sun protection to pharmaceuticals, crop and battery technologies, these markets touch our lives every day.

### Consumer Care

From 1 January 2021, Personal Care, Home Care and Iberchem were combined to create our new Consumer Care sector.

→ See pages 24 - 29



Our smart science is helping our customers, large and small to create formulations with improved environmental profiles for thousands of personal and home care products while delivering clear benefits to consumers.

We reach customers worldwide with our ingredients to deliver health care solutions, protect crops and enhance seeds. From our vaccine technologies to microplastic-free seed coatings, we are using our smart science to improve lives everywhere.

Our innovative, low-carbon, sustainable and technology-rich additives and materials enable the transition of industrial markets to new sustainability-driven solutions. We work with our customers to help them to deliver superior performance, lower carbon, and greater circularity in materials, mobility, energy, and water industries.

\* Reported as Personal Care for 2020.

## Delivered by our shared values

Our distinctive values-led culture governs how we work and guides our relationships with others. Our shared values of 'Responsible', 'Innovative' and 'Together' focus our work to ensure our smart science helps to improve lives. For more information on our values see p16.

# to improve lives™

Croda was founded on the principle of using smart science to turn bio-based raw materials into innovative ingredients that help to improve lives. Our Commitment is to be Climate, Land and People Positive by 2030. Through this, and by being the most sustainable supplier of innovative ingredients, we will help provide solutions to some of the world's biggest challenges. The United Nations Sustainable Development Goals (SDGs) are the foundation of our approach.

## Our priority SDGs



## By 2030 we will be...

### ...Climate Positive

We will help our customers to avoid carbon emissions through the benefits in use of our innovative ingredients, whilst continually reducing our carbon footprint. We will increase our use of bio-based raw materials, which absorb carbon from the atmosphere. By combining these efforts, we will enable four times more carbon emissions to be avoided than we emit through our operations and supply chain.

➔ See page 32

### ...Land Positive

The use of our agrochemical technologies helps farmers to increase yields and improve crop resilience while protecting biodiversity. Our continual innovation will help customers to mitigate the impact of climate change and land degradation, increasing the availability of land suitable for growing crops. The use of our products will enable more land to be saved than is used to grow our bio-based raw materials.

➔ See page 34

### ...People Positive

We use our smart science to improve the lives of our own employees and people all around the world. We will contribute to SDG 3, developing ingredients to improve health and wellbeing, provide access to our smart science through our foundation, and encourage and promote diversity within our organisation. We will continue to innovate to increase our positive impact on society.

➔ See page 35

## How we measure the success of our Purpose

Creating Smart science to improve lives™ drives us all but we do not take this for granted. For details of the ways we measure the success of our Purpose, and the link to our executive remuneration, see our strategy on p22, our KPIs on p38 and our Remuneration Report on p76 and 80.

## Chair's statement

2020 will be remembered as the year of the global COVID-19 pandemic. In everything we have done we have endeavoured to treat all our stakeholders fairly. Compassion and the agility to respond have been essential.



**Anita Frew**  
Chair

## Delivering for all of our stakeholders

2020 will be remembered as the year of the global COVID-19 pandemic which has left its mark on us all. On behalf of the Board, I would like to thank all our employees around the world for their continued commitment to one another and to our customers, which has been remarkable amidst these challenges.

I am particularly proud of the role we are playing delivering critical components of the first approved COVID-19 vaccine that is helping to pull us through this crisis. More generally, the pandemic has demonstrated the resilience of Croda's culture and business model.

I am sure I am not alone in feeling deep sympathy for everyone touched by the terrible impact of the virus. In everything we have done this year we have endeavoured to treat our stakeholders fairly and live up to our Purpose of using Smart science to improve lives™.

## A resilient performance

In the first few months of the pandemic, the Board met weekly to consider Croda's response to the crisis, which has been both

rigorous and compassionate. In line with investor focus on business continuity, we undertook extensive scenario testing which confirmed Croda would remain profitable, cash generative and have sufficient liquidity to absorb extended uncertainty.

Croda's business model has proved to be even more resilient than the scenarios we tested. Core Business sales for the year increased by 2.2% to £1,293.9m (2019: £1,265.9m). Adjusted profit before tax reduced by 6.7% to £300.6m (2019: £322.1m). Life Sciences delivered an outstanding performance through organic growth and acquisition, most notably in the Health Care business. Personal Care and Performance Technologies were both significantly affected by lockdowns in response to COVID-19 but sales recovered well during the second half year. The benefits of recovery, together with the full-year impact of recent acquisitions and the COVID-19 vaccine contract, are expected to support profitable growth across the business.

COVID-19 has been the focus of 2020 but we also recognise that the other big crises facing the planet have not gone away. At the beginning of this year we outlined our



We recognise that we operate in an ecosystem where our success and our positive impact on the world are dependent on others."

Commitment to be Climate, Land and People Positive by 2030. Despite the pandemic, we have made a strong start on the journey to become the most sustainable supplier of innovative ingredients, helping to provide solutions to some of the world's biggest challenges.

## A year for compassion, fairness and flexibility

We have confidence in our ability to deliver our Purpose and Commitment because of the team we have and the way we work. The Board has an important role to play in promoting a culture that ensures Croda's long-term success. This year, in addition to the relentless focus on the safety of our colleagues and promoting diversity across the business, we have focused on defining the values that make us different as a company. Our distinctive values-led culture governs how we work with one another and guides our relationship with others. We recognise that we operate in an ecosystem where our success and our positive impact on the world are dependent on how we work with all of our stakeholders.

This year we knew that the COVID-19 crisis would create challenges for stakeholders across our entire ecosystem, from our employee colleagues to small suppliers, large customers and the local communities where we operate. Among other efforts, we have ensured that our colleagues can work from home or in COVID-secure workplaces. None of our colleagues was put on furlough and we moved quickly to provide reassurance that we had no plans to reduce numbers or reduce pay and benefits as a result of the pandemic. We also recognised that some employees needed to balance caring responsibilities and work, so encouraged everyone to work flexibly.

We worked with our colleagues to support their local communities and offered struggling customers and suppliers more flexible payment terms to help them weather the financial impacts. We also continued to pay dividends to shareholders in line with the Board's commitment to treat all stakeholders fairly. This has been a year when compassion, fairness and agility to respond have all been essential.

### Driving value through our Purpose and strategy

Our agile approach and resilient business model also allowed us to look beyond the immediate pandemic and plan for the long term. Over the summer, the Board and Executive defined Group strategic priorities that will deliver longer-term growth. Alongside sustainability, the disruptive impact of digital and the opportunities in emerging markets are driving our thinking, and, whilst our long-term strategy has not changed, we have accelerated the delivery of some immediate priorities.

Our strong balance sheet, low leverage and robust liquidity allowed us to invest with confidence to accelerate delivery of our strategy of enhancing future sales and profit in consumer-facing markets. We invested over £120m in organic capital expansion, with a particular focus in growing Health Care and innovation, and over £850m in two acquisitions into key market adjacencies. Firstly, in support of our near-term priority to scale drug delivery, we acquired Avanti Polar Lipids, whose lipid-based technologies are

key to new patient health applications including mRNA-based vaccines and drugs to fight COVID-19. Then, in November, we acquired Iberchem, a global flavours and fragrances business, in line with our priority to deliver fast growth in emerging markets, particularly China. This acquisition was part-funded by an equity placing, 75% of which was taken up by existing shareholders, whom we would like to thank for their ongoing support.

By reinforcing Croda's leading position in high-growth niches, such as consumer care and patient health, we are targeting more consistent organic revenue growth. This will complement our world-class margins and strong cash generation as part of our compelling proposition to shareholders. This year, our resilient performance, combined with prudent leverage and dividend distribution over many years, enabled us to pay dividends to shareholders and propose a full year dividend of 91.0p (2019: 90.0p).

### Refreshing the Board

Following the retirement of Alan Ferguson at the Annual General Meeting last April, John Ramsay has taken over as Chair of the Audit Committee and Helena Ganczakowski has become Senior Independent Director. I would like to thank Alan for his excellent insight and unfailing support during my time as Chair, and my fellow Board members for their ongoing commitment, energy and experience under extraordinary circumstances in 2020.

Difficult times often cause us to step back and look again at our priorities. This year, when I step back and consider our performance, I am inspired by the strength of the Croda culture, the commitment of our employees pulling in the same direction and our ecosystem of supportive stakeholders. I am excited by the potential this promises for the future.



Anita Frew  
Chair

## Playing a critical role in the Pfizer-BioNTech COVID-19 vaccine

Steve Burgess, Chief Scientific Officer at Avanti Polar Lipids said: "We are delighted to be playing a critical role in the scale-up of the Pfizer-BioNTech COVID-19 vaccine, achieved in

unprecedented time and now being delivered at pace. It's an exciting moment in the development of lipid drug delivery systems for next-generation pharmaceuticals. It's also a

great example of the benefits of Avanti and Croda coming together, combining our expertise in lipids that enable drug products to be delivered into the body with Croda's ability to refine the

complex processes to produce the volumes necessary for roll out worldwide. We are proud to be on the Pfizer-BioNTech team and playing our part in this pioneering science."



#### Drug discovery and research

#### Phase I to IV clinical trials

#### Regulatory review and approval

#### Commercialisation and scale-up

1.

Before the COVID-19 outbreak, Avanti supplied R&D quantities of lipid-based drug delivery technologies to pharmaceutical companies developing mRNA drugs

2.

With the COVID-19 outbreak, mRNA vaccine candidates were fast-tracked to phase II clinical trials. Avanti became a key supplier of lipid-based delivery components to the highest quality and pharmaceutical regulatory standards known as GMP or Good Manufacturing Practice

3.

Prior to Croda's acquisition of Avanti in August 2020, Avanti needed a scale-up partner and engaged Croda to access health care R&D capability and lipid production capacity

4.

Croda rapidly re-designed the component production process and scaled-up GMP-compliant production in four months to support phase III trials. This drew on our experience of manufacturing drug delivery systems and involved redeploying R&D and engineering capability as well as fast-tracking £10m of capital expenditure

5.

Croda/Avanti secured a contract to supply delivery system components to Pfizer-BioNTech for the COVID-19 vaccine

6.

Pfizer-BioNTech COVID-19 vaccine approved by regulators initially in the UK and USA; Croda/Avanti playing critical role in scale-up of the vaccine that has been achieved in unprecedented time and is now being delivered at pace

## Chief Executive's review

During a year in which we have faced unprecedented challenges, the response and commitment of all our employees to maintain business continuity and serve our customers has been outstanding. The strength and quality of Croda's business model has been further demonstrated.



**Steve Foots**  
Group Chief Executive

## Living our Purpose through our response to COVID-19

Croda's Purpose is Smart science to improve lives™. This sits at the heart of everything we do, not least in the way we responded to the COVID-19 crisis.

Our priorities during the pandemic have been to protect the health and safety of our employees and balance the needs of all our stakeholders fairly. Almost all our employees have been able to work effectively, either onsite, with strict social distancing measures in place, or from home. We have not furloughed any employees, reduced pay or utilised government liquidity facilities. We have supported our customers and suppliers; made supplies of free materials available for hand sanitiser production, COVID-19 vaccine

research and PPE provision; and have given financial assistance to the communities closest to our sites. We paid final and interim dividends to shareholders in full during 2020.

The response and commitment of all our employees to maintain business continuity and serve our customers has been outstanding. Everyone has shown remarkable fortitude in the face of an unprecedented challenge and I am grateful to all Croda colleagues around the world. All but two of our 19 principal manufacturing sites have operated without material disruption, our research and development (R&D) teams have had significant laboratory time, protecting our customers' innovation pipelines, and our sales teams have developed even stronger bonds with customers, supported by investment to enhance our digital presence.

There is no better example to demonstrate how we are using Smart science to improve lives™ than our involvement with the COVID-19 vaccines and drugs. My proudest

Definitions are in the Finance review on page 43: alternative performance measures, constant currency results, underlying results, adjusted results, Core Business, return on sales, net debt, leverage ratio and free cash flow. Adjusted results are stated before exceptional items, acquisition costs and amortisation of intangible assets arising on acquisition, and tax thereon. Constant currency results reflect current year performance for existing business translated at the prior year's average exchange rates.



There is no better example to demonstrate how we are using smart science to improve lives than our involvement with COVID-19 vaccines and drugs."

moment in more than 30 years at Croda came with our support for the Pfizer-BioNTech vaccine. We are involved in over 60 projects to deliver COVID-19 vaccines and therapeutic drugs, putting us at the forefront of the fight against this devastating virus.

## Delivering our strategy

The strength and quality of Croda's business model has been further demonstrated this year. Whilst customer demand in certain end markets has inevitably been impacted by the crisis, the strength and breadth of our product portfolio across consumer and industrial markets, our global footprint and customer intimacy, together with our flexible manufacturing model, have all helped to reduce its impact on financial performance. This has allowed us to make almost £1bn of organic and inorganic investments in fast growth markets of the future, capitalising on emerging trends in existing and adjacent markets.

2020 saw the full launch of our sustainability strategy, as part of our Purpose. By 2030 we will be Climate, Land and People Positive, delivering our part in a global commitment to limit the planetary temperature rise to 1.5°C. The need for sustainable solutions is disrupting markets, creating significant opportunities for Croda to create market-leading products whilst ensuring that we have a positive effect on the environment and society.

Our strong balance sheet, low leverage and robust liquidity allowed us to invest with confidence to accelerate delivery of our strategy of enhancing future sales and profit in life science and consumer markets. We invested over £120m in organic capital expansion, with a particular focus in growing Health Care and innovation, and over £850m on two acquisitions into key market adjacencies. In Life Sciences, Avanti Polar

The Strategic Report was approved by the Board on 1 March 2021 and signed on its behalf by Steve Foots.

**Steve Foots**  
Group Chief Executive

Lipids adds market-leading lipid technology to Croda's existing patient health capability, opening the door to supporting not only COVID-19 projects but a wide variety of future mRNA and gene therapy drug and vaccine applications, a journey which starts with the Pfizer-BioNTech vaccine. We are combining our Personal Care and Home Care businesses with our acquisition of Iberchem in fragrances to create a Consumer Care leader. Iberchem opens up significant synergies as we are able to service medium-size and smaller customers with a 'one-stop-shop' combining Croda's critical ingredients and Iberchem's on-trend fragrances in stable formulations. As a result of these investments, life science and consumer markets now represent over 80% of Croda's profit generation.

### A resilient financial performance

Against the backdrop of the extreme circumstances experienced globally in 2020, Croda's financial performance was resilient. We experienced only a 2.7% decline in underlying sales, supplemented by acquisition sales adding 3.8%, to grow overall by 1.1% in constant currency. In reported currency, sales increased by 0.9% to £1,390.3m (2019: £1,377.7m) with the proportion of sales from NPP products falling slightly to 27.4% (2019: 28.1%). Sales in the second quarter were hard hit by the first round of global lockdowns, with Group constant currency sales almost 12% lower year-on-year. However, the second half saw a steady month-on-month improvement in both consumer and industrial markets, with encouraging exit sales rates, as underlying fourth quarter sales recovered to be in line with prior year in Personal Care and returned to growth in Performance Technologies. Life Sciences also returned to strong underlying double-digit growth in the second half year and both in-year acquisitions performed well.

The challenging conditions saw adjusted operating profit 4.0% lower in constant currency and 5.9% down in reported currency at £319.6m (2019: £339.7m). This reflected an adverse mix in both Personal Care and Performance Technologies, where demand for higher value-add products was most impacted by the pandemic. Return on sales was 23.0% (2019: 24.7%). Adjusted profit before tax was £300.6m (2019: £322.1m) and adjusted basic earnings per share (EPS) were 175.5p (2019: 185.0p). This was a creditable performance in challenging market conditions.

Exceptional items, acquisition costs and amortisation of intangible assets arising on acquisition increased to £31.1m (2019: £19.8m), primarily reflecting the acquisition activity during the year. Profit before tax on an IFRS basis was £269.5m (2019: £302.3m).

### Robust cash generation supporting continued investment and increased dividend

In 2020 we delivered robust free cash flow of £176.9m (2019: £201.7m). This was after investing in not only our regular capital programme but also in three key areas where we have accelerated our organic investment; innovation; fast growing our China presence; and scaling our drug delivery platform. Although many innovation projects were temporarily paused during lockdown, we ensured that our R&D teams were able to access laboratories, protecting our future innovation pipeline. Adding to over 40 existing customer innovation centres, we invested in new centres in the US, in biotechnology in the UK and in Shanghai.

China offers significant growth opportunities as part of our 'fast grow' strategy. During 2020, we added over 15% to resourcing of the Croda China team, and delivered a major upgrade to our digital presence, including a locally hosted China website. We are also introducing our successful French botanical ingredients business to the China market, where consumers have long been focused on plant-based beauty and health products.

Drug delivery offers our strongest global opportunity for growth and we are investing in new manufacturing capacity to serve these patient health care markets. We are currently commissioning a doubling of our US speciality excipient plant, serving a market growing by double-digit percentage annually. We also reprioritised £10m of investment in 2020 to support the Pfizer contract and other opportunities from our Avanti acquisition. Much of this capacity will come on stream this year to serve growth in 2021 and beyond.

We have supported this organic investment with our two key acquisitions in 2020; Avanti, for an initial consideration of US\$185m, and Iberchem, for a total consideration of €320m. Supporting acquisition debt financing, Iberchem was part-funded by an equity placing, which raised gross proceeds of £627m and was well supported by existing institutional shareholders which represented 75% of the placing. Our employees and private shareholders also participated through the PrimaryBid platform.

Net debt closed the year just above £800m, with a leverage ratio of 1.8 times EBITDA. Coupled with resilient earnings in 2020 and the prudent leverage and dividend policies we have adopted for many years, we have weathered the truly challenging conditions of 2020 and the Board has proposed an increase in the full year ordinary dividend to 91.0p (2019: 90.0p).

### Another record year for Life Sciences; challenges for Personal Care and Performance Technologies

The standout performance in 2020 was again in Life Sciences, with record sales and profit, driven by a strong performance in both Health Care and Seed Enhancement. With no discernible negative impact from COVID-19, sales grew by nearly 15% to £401.6m (2019: £350.5m) and adjusted operating profit increased over 20% to £129.4m (2019: £107.1m), both in reported currency. With continued growth in higher value-added niches, return on sales increased by 160 basis points to 32.2% (2019: 30.6%), in line with our strategy. In Health Care, continued growth in speciality excipients and vaccine adjuvants was complemented by the acquisition of Avanti, with its pipeline of development and synergistic scale-up opportunities, beginning with our contract to supply vaccine delivery components for COVID-19. Crop Protection continued to grow sales, excluding the impact of planned product withdrawals, and Seed Enhancement returned to double-digit revenue growth. Life Sciences is now well established as a fast-growth, high-value business in Croda's model.

Personal Care was significantly affected by lockdowns in response to COVID-19. This negatively impacted sales by reducing consumer demand for products associated with 'going out' and by interrupting sales channels, particularly for prestige products. Sales were 1.9% lower at £475.9m (2019: £485.2m) and 6% lower in underlying terms pre-Iberchem. However, from a low point in May, sales recovered month-on-month and were in line with prior year in the fourth quarter. With a higher proportion of sales of 'at home' use Beauty Formulation products and a greater sales reduction in the higher margin Beauty Actives and Beauty Effects businesses, the adverse mix saw adjusted operating profit reduced to £136.5m (2019: £162.1m) and return on sales of 28.7% (2019: 33.4%). We expect sales and profit to improve when lockdowns lift, luxury channels re-open and with the significant cross-selling opportunities provided by the Iberchem acquisition.

In Performance Technologies, sales were only 3% lower than prior year at £416.4m (2019: £430.2m) in challenging industrial markets globally but profitability reduced significantly. After a good start to the year, sales progressively weakened during the second quarter alongside temporary closures of automotive and industrial plants. The second half saw a steady recovery, with fourth quarter sales encouragingly ahead of prior year. However, adjusted operating profit reduced by over 20% to £54.0m (2019: £69.4m) and return on sales was 13.0% (2019: 16.1%),

due to the sector's higher operating leverage, lower production at European sites and adverse profit mix, as volume was more resilient in lower margin parts of the business. With a recovery accompanied by growth in renewable technologies and sustainable solutions, the sector should become less cyclical as sales growth and better margin return.

### Regional growth in North America offset by slower Europe and Asia markets

Sales in all regions were impacted in the second quarter by governments' initial COVID-19 responses. North America and Latin America returned to underlying sales growth in the second half of 2020, with North America also achieving growth across 2020 as a whole. Lockdowns were more extensive and impactful in Asia and Europe but both regions achieved flat underlying sales in the second half year, compared to 2019. In Asia, China growth rebounded quickly but the key manufacturing markets of Japan and Korea remained soft due to the reduction in foreign tourists.

The North American biosurfactant plant came online early in 2020. Following a successful commissioning phase, the plant produced the majority of our US feedstock demand, allowing replacement of traditional petrochemical surfactants with our ECO range of bio-based products, which deliver identical performance from sustainable ingredients for the first time. COVID-19 has adversely impacted short-term economics, with sanitiser-grade bioethanol in short supply, resulting in a high raw material price. In addition, the plant was unable to operate from September 2020 after the local regulator raised a number of deficiencies with regard to air permit limits, which have tightened over the last few years in line with lower emissions at the site (p36). As a result, the operating loss on the plant increased by £7m on 2019. We expect the plant to be operational again during the first half of 2021, allowing progressive development of the sustainable product pipeline, a move to a cheaper feedstock and a steady improvement in profitability.

### Our Purpose

At Croda, we believe that delivering a strong financial performance is only a part of having a clear, shared purpose; shared with our employees, our customers and all our stakeholders. Our Purpose builds deeper connections throughout the business and improves our competitiveness, driving the long-term success of our Company. Our Purpose is to use Smart science to improve lives™ and to deliver this we combine our knowledge, passion and entrepreneurial spirit to create, make and sell speciality ingredients that are relied upon by industries and consumers everywhere.

Croda was built on a foundation of using smart science to turn renewable raw materials into innovative ingredients. This sustainability focus still sits at the core of what we do, driving innovation to create market-leading products and ensuring that we have a positive effect on the environment and society. By aligning our smart science with the United Nations Sustainable Development Goals (SDGs), our sustainability Commitment is to be Climate, Land and People Positive by 2030. The impact that Croda has in these three key areas of sustainability will be net positive for the planet. Our commitment is to become the most sustainable supplier of innovative ingredients. It is the right thing to do, but it is also what our customers want and what their consumers are increasingly demanding. COVID-19 may have been the challenge of 2020 but creating a sustainable future remains our biggest long-term challenge.

In 2020, we have continued to drive our sustainability agenda, establishing interim goals against which we measure our progress towards achieving our Commitment. We have developed decarbonisation roadmaps for our top ten carbon-emitting sites. In recognition of Croda's leading position, we were awarded a 'Triple A' ESG rating by stock market agency, MSCI. We were again recognised as one of Britain's top five 'Most Admired Companies' and the most admired British chemical company by Management Today. Since 2015, we have driven a 33.9% reduction in waste-to-landfill, a 15.4% reduction in our Green House Gas emissions, and a 25.0% improvement in our energy mix. We sustained our process safety performance in 2020, with no serious incidents or any with major accident potential. Personal injury performance also continued to improve, ahead of our target of 0.6 per 200,000 hours, with a Total Recordable Injury Rate (TRIR) of 0.54 (excluding recent acquisitions and COVID-19 cases).

Our bio-based raw material content is now 67% (2019: 63%). Leveraging our position in renewable raw materials, Croda enables our customers to meet their sustainability commitments, driven by consumer demand as well as regulatory change. In consumer care markets, we deliver this through ethical sourcing, sustainable manufacture, focusing more of our innovation on sustainable ingredients and through our ingredient transparency project. This project is responding to growing consumer demand for sustainable ingredients and the 'clean beauty' trend, where consumers want to know what is in the products they use, as well as how well they perform. Our ECO biosurfactant plant enables us to produce sustainable ingredients that deliver identical performance to their petrochemical peers,

with customers in both the home care and personal care markets adopting these bio-based surfactants during 2020.

### A purpose-led consumer-facing ingredients company

Our overall strategy continues to be to drive:

- Growth – consistent top and bottom line growth, with profit growing ahead of sales, ahead of volume;
- Innovation – the lifeblood of our business, we seek to increase the proportion of New and Protected Products (NPP) that we sell and formulate into customers' products; and
- Sustainability – aligning our business with our Purpose and accelerating our customers' transition to sustainable ingredients.

Our strategies for each sector are described below.

### Expand to Grow Life Sciences

With its growing margin and exciting technologies aligned to global health and crop sustainability trends, we continue to build our Life Sciences brand as a high value-add solution provider to our pharmaceutical and crop customers. We are deploying more capital in this sector, having accelerated investment in Life Sciences with organic expansion of our speciality excipients business and the acquisition of adjacent technologies to build a broad drug delivery business of global scale. Through the acquisition of Avanti, we added proprietary lipid technology to Croda's capabilities in drug delivery systems. Alongside urgent demand to respond to the COVID-19 pandemic, this unlocks a major pipeline of other opportunities, including mRNA and gene therapy drug and vaccine technologies. To rapidly develop this, 2021 will see us invest a further £40m to expand the Avanti and UK scale-up facilities. Alongside improving sales from our recent vaccine adjuvant acquisition, Biosector, and strong R&D relationships in Crop Care, we expect to deliver mid to high single-digit percentage sales growth at increased margins over the medium term.

### Strengthen to Grow Consumer Care

Already recognised as the leading market innovator, we will strengthen growth in our Personal Care business. With the acquisition of Iberchem, together with unlocking the high-growth potential of our Home Care business in hygiene and fabric applications, 2021 will see these three legs consolidated into a Consumer Care sector. This combination will enable the cross-selling of our industry-leading Beauty Actives, Beauty Effects and heritage Beauty Formulation high performance ingredients with Iberchem's on-trend fragrances to both sets of

customers. Iberchem expands Croda's access into emerging markets, while Croda provides Iberchem access to much of Europe and North America for the first time. We will be able to offer improved, stable formulations containing fragrance and a greater range of sustainable solutions, including our ECO range of biosurfactants across Beauty Formulation and Home Care. Consumer Care offers the opportunity to selectively deploy more capital, through organic growth, geographic expansion and bolt-on acquisition. With a recovery in prestige consumer markets when lockdowns are lifted, Iberchem's consistent record of growth and new revenue synergies, we expect over the medium term to achieve mid single-digit percentage top-line growth and high margins that reflect the blend of the three businesses.

### Refine to Grow Performance Technologies

We are refining Performance Technologies to focus on high-tech markets and reduce exposure to cyclical business. 2020 saw progress in meeting demands for sustainable solutions in advanced technologies, focusing on fast-growth markets in circular plastics, electric vehicles and other renewable technologies, such as wind turbines, and a continued reduction in oil and gas and some traditional automotive applications. We are also expanding our geographic footprint, creating a new innovation centre to drive our China growth, in the world's biggest and fastest-growing industrial market. We expect to progressively reduce the cyclical nature of this business, with sales growth targeting global GDP and steady margin improvement towards our 20% target over the medium term.

Alongside our three sector strategies, we are pursuing key strategic targets across Croda, to deliver fast growth in China, through increased investment in sales, innovation and manufacturing, as set out above; scaling our biotechnology investment to drive disruptive technologies and greater sustainability; increasing the robustness of our global supply chain to meet customers' future needs; and developing the Croda brand as an employer of choice to continue to recruit and retain the best entrepreneurs and innovators.

We are also building our digital capability to continue to improve customer intimacy and experience, while improving process efficiency. Our digital transformation programme extends across our Create, Make and Sell model. In Create, we are investing in knowledge management, to further leverage our global innovation expertise. In Make, we have introduced real-time monitoring of production plant performance and are rolling out a supply chain programme which will

improve stock availability local to the customer while reducing working capital. In Sell, with few in-person customer visits possible during lockdown, we prioritised the use of digital for customer engagement and rolled out our Live Chat functionality in 35 countries. This resulted in a third more website visitors and leads generated from digital channels, compared to 2019.

### Accelerating strategic delivery through acquisition

We are also continuing to pro-actively search for M&A opportunities to accelerate our strategic delivery in the life science and consumer markets. 2020 saw two key milestones in delivering this programme. In August, we completed the acquisition of Avanti, a US-headquartered business which makes lipid-based delivery systems for drugs and vaccines. The latest technology, lipid nanoparticle (LNP) systems, are increasingly attractive for the delivery of complex therapeutic drugs and in next-generation mRNA vaccines. The acquisition combined Avanti's leading position in early-stage pharma research with Croda's manufacturing scale-up expertise. Previously, Avanti's scale had not been able to take clinical trial quantities of successful drug systems into commercial manufacture. Despite this, Avanti delivered double-digit percentage CAGR sales growth between 2016 and 2019, and the synergistic combination of Avanti and Croda should unlock this growth considerably. The acquisition also more than doubled our Health Care R&D capability, with 100 scientists joining with Avanti.

During 2020, Avanti saw a dramatic increase in its project pipeline, driven by potential COVID-19 treatments; in one of these projects, pre-acquisition, Avanti and Croda worked together to develop and scale-up an LNP delivery system for a vaccine candidate. This development work led to a five-year non-exclusive contract to supply lipid components into the Pfizer-BioNTech COVID-19 vaccine, which we initially estimated would generate approximately US\$100m of sales in 2021 if the customers' publicly indicated volumes were required. Based on contractual commitments received to date, we now expect a minimum of US\$125m sales in 2021 for this vaccine. While this was a proud moment for all at Croda, the vaccine marks an early use of innovative mRNA technology which is expected to drive future excipient growth well beyond COVID-19 in the prevention of other infectious diseases and treatments, including cancer. The acquisition also cements the position of Health Care and the wider Life Sciences business as a high growth, high-value part of Croda's future success.

The second milestone was achieved in November, when we completed the acquisition of Iberchem, a global fragrance and flavour business. Strategically, Iberchem further increases our exposure to faster growing consumer care markets and geographies, with Iberchem having grown at 14% sales CAGR between 2016 and 2020. With a highly commercial approach to R&D and its focus on delivering tailor-made products at speed, Iberchem is strong in customer niches such as own-brand, regional and independent brands, a customer profile that is similar to much of Croda's own Personal Care business. It also has over 80% of its sales in high-growth emerging markets, a combination with Croda which creates significant cross-selling opportunities which are expected to generate nearly €50m of annualised revenue synergies within five years. With our leading position in sustainability, we are also well placed to help transition Iberchem's raw material profile onto a more sustainable platform, a potential differentiator in the market.

### Outlook

While continued COVID-19 restrictions make the near-term outlook for elements of our Consumer Care and Performance Technologies sectors difficult to predict, 2020 sales exit rates were encouraging with consumer and industrial end markets showing signs of recovery. Life Sciences is expected to remain strong. The benefits of recovery, together with the full year impact of Avanti, Iberchem and our Pfizer-BioNTech COVID-19 vaccine contract, are expected to support profitable growth across the business.

Through our Purpose, Smart science to improve lives™, we will continue to increase the positive impact our products deliver for our customers and their consumers, whilst also reducing the negative impact our activities have on our fragile world. The combination of our differentiated business model, healthy innovation pipeline and recent investments is expected to underpin performance and generate value for all our stakeholders.



**Steve Foots**  
Group Chief Executive

## Megatrends

Of the megatrends which will drive growth across Croda, three common themes are sustainability, emerging markets and digital.

### Sustainability

COVID-19 has been the focus of 2020 but the other big crises facing the planet have not gone away: population growth, the use of limited resources, the rise of inequality, the loss of biodiversity, and climate change. According to experts,<sup>1</sup> 2010-2020 was the hottest decade on record, average temperatures were 1% higher than the previous ten years and are likely to be 4% higher by 2050.

These urgent challenges cannot be addressed without support from business. It is becoming widely acknowledged that businesses must serve the interests of all stakeholders; if they do, they will make an important contribution to tackling global challenges.

Sustainability makes good commercial sense. Consumers want products sourced from natural ingredients that make a positive contribution to the environment and local economies. They want to buy goods and services from purpose-driven companies. Growing regulation is also forcing businesses to be more sustainable to maintain compliance, which is in turn driving innovation.

#### How we are responding

With our clear Purpose, we are committed to serving the interests of all stakeholders.

We have used the United Nations (UN) Sustainable Development Goals (SDGs) as a practical framework to evaluate where we can make a meaningful contribution, and to provide a common language for discussions with customers and suppliers. Non-financial metrics are now monitored alongside financial ones and are linked to the UN's specific targets that sit below the SDGs. By 2030 we are committed to being the most sustainable supplier of innovative ingredients and to being climate net zero by 2050.

Sustainability underpins the way we think commercially, technically and operationally and is the biggest driver of our strategy, which recognises that long-term value creation will be driven by the intersection of innovation and sustainability. We are supporting this strategy by investing in sustainability through acquisitions and partnerships, as well as organic investment.

### Emerging markets

In terms of economic importance, emerging markets are starting from a lower base but are catching up rapidly. The 20-plus countries that constitute the MSCI Emerging Market (EM) index are a diverse group, but all boast high per capita GDP growth, in addition to growing populations. This economic growth is enabled by technology and an opening up of markets, including to foreign capital.

Growing consumption and an expanding middle class are increasing demand for consumer goods and health care in these countries, particularly for products that improve living standards. This has been a notable trend in beauty and personal care markets, particularly in Asia Pacific which is now almost 40% of the global beauty market.<sup>2</sup> Premium beauty products are also growing more quickly than the mass market, with consumers 'trading up' to buy higher-quality and more sustainable products.

#### How we are responding

Faster EM growth is resulting in a growing need for consumer products that use our ingredients. We are seeing increasing demand for anti-ageing, beauty and health products as incomes rise and consumers' expectations change. Croda is well-placed to respond due to our global network of local market teams who are close to customers and understand their needs. We also put a particular emphasis on governance, sustainability and business ethics in emerging markets, in recognition that market structures are still developing.

We are investing in local research and development laboratories in growing regions, as well as manufacturing assets to reduce supply chain length and bring supply closer to our customers. A strategic priority for the Group is to deliver fast growth in Asia where we are expanding our sales, marketing, technical and digital resource, investing in manufacturing capacity for health and personal care in Japan, and opening a new innovation and technical centre in Shanghai.

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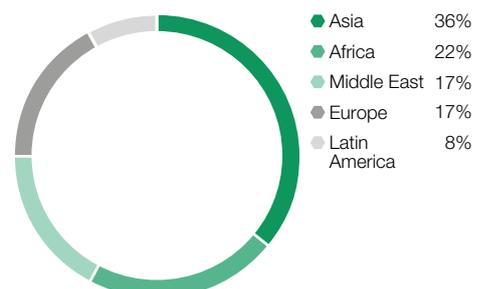
There is no doubt that we will use carbon-based emissions as the final decision-making criteria... as we typically would have done with the price, the quality, the reliability as factors that would have informed purchasing decisions. Carbon track record is becoming a real currency.”

**Thomas Udesen**

Chief Procurement Officer, Bayer, speaking at Croda's investor seminar on sustainability, 20 October 2020

In November 2020, we announced the acquisition of Iberchem, a global Flavours and Fragrances business with a strong EM presence. 83% of Iberchem's sales are to EMs, including 25% to China, 22% to Africa and 17% to the Middle East. Prior to the acquisition, Croda generated less than 5% of sales in the Middle East and Africa, so the combination significantly increases our EM footprint and creates new revenue synergy opportunities to leverage respective customer networks.

#### Iberchem 2019 sales by region



## Digital

Digital is a massive disruptor, driving efficiency and reshaping customer experience. Almost 60%<sup>3</sup> of the world's population now have access to the internet and they are generating more data than ever, which can be turned into information and knowledge. More than four billion people worldwide now use social media each month with two million new users joining them every day. This is increasing the speed at which new trends are adopted and enabling the creation of new, often independent brands.

Consumers, empowered by digitalisation, have changing expectations. They expect greater choice and want to know more about the products they use and the companies they purchase from. This supports the sustainability agenda, favouring companies that innovate responsibly, are transparent and demonstrate their purpose in their actions. Digital technologies are also driving continued globalisation, enabling organisations to engage directly with people anywhere, particularly the young and affluent who are more likely to be digitally savvy.

1. IPCC Special Report on Global Warming. <https://www.ipcc.ch/sr15/>.
2. HSBC Global Beauty Spotlight December 2020.
3. <https://www.statista.com/statistics/617136/digital-population-worldwide>.
4. <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/the-b2b-digital-inflection-point-how-sales-have-changed-during-covid-19>.

Digital advancements provide a great opportunity to reach customers in a personalised and targeted way. In China, for example, the significant growth of livestreaming on social media has created a whole new purchase channel. COVID-19 has accelerated the drive to digital, with online sophistication being a clear differentiating factor in company performance.

### How we are responding

Croda's digital transformation programme recognises that digital touches every part of our business – from R&D to operations and sales and marketing. Our objective is to improve the customer experience by ensuring that we are both well connected with our customers and easy to do business with.

Intensified use of digital is driving our innovation programme with data science and artificial intelligence shortening product development life cycles. This year we have focused on the digitalisation of our UK synthesis labs and investment in knowledge management so we can leverage our global R&D expertise.

“

Suppliers who provide outstanding digital experiences to their buyers are more than twice as likely to be chosen as a primary B2B supplier.”

McKinsey – B2B Digital Inflection Point<sup>4</sup>

Digital also has a wide range of applications across operations, supply chain and procurement. We are using digital to provide real-time monitoring of plant performance, predicting and resolving issues to optimise site operations. The data generated is then translated into valuable information for our customers. In this way digital is supporting our sustainability agenda, by driving transparency, minimising waste and ensuring more efficient supply chains.

Our digital sales and marketing activity is allowing us to target new and existing customers. Through digital we are delivering a more personalised customer experience, giving them instant access to our expertise through multiple channels, including Live Chat and eCommerce.



### New digital path to China

“I’m excited to be leading the biggest project of my career, the .CN website transformation project, creating a totally new web experience for the Chinese market,” said Aung Phyoe Lynn, Digital Marketing Lead from Croda Singapore.

“This project is so important to Croda’s digital programme. It’s a great example of us improving the customer experience by giving them personalised content through local, relevant channels. We have already started to deliver new websites, within the .CN domain. Our first metrics are really positive; we’re seeing lots of new leads from new and existing customers, encouraging conversions and a real buzz from our sales teams as to what will come next.”

“I am particularly pleased by the level of investment Croda has committed to digital marketing in China. We are investing in the latest digital technologies and exploring China-based platforms, to enhance our visibility and engagement with new prospects. For example, we are investing heavily in social media campaigns on WeChat, which operates quite differently from those platforms elsewhere. We have also built new expertise locally to adapt our terminology, language and content to resonate with the Chinese audience.”

The new website, which started roll out towards the end of 2020, allows Chinese customers to self-serve, requesting product information and samples easily online by themselves. With this website as a

“

I believe digital technology will continue to shape the way we work and interact with our customers at Croda.”

foundation, we will enhance other digital applications, improve efficiency further and stay ahead of competition. We can also collect data from our Chinese target audience so that we can share targeted messages and help them with a smooth user journey.

Phyoe added “We have high aspirations for our digital marketing programme. The new websites and supporting campaigns bring many opportunities to generate leads from some of our customers in tier three cities in China which salespeople would find difficult to visit. With this in mind, I believe digital technology will continue to shape the way we work and interact with our customers at Croda.”

## Business model

We generate long-term value by engaging with customers, creating, making and selling sustainable and innovative speciality ingredients, in line with our Purpose.

### Smart science to improve lives™

#### Our value chain

##### Consumer demand

Population growth, changing demographics, our fragile planet and innovations in digital technologies continually influence consumer demands.

##### Customer needs

Our customers seek innovative and sustainable ingredients that meet consumer demands.

#### Our sustainable business model

##### Engage

Working closely with our customers and supply chain partners, we identify consumer needs around the world.

E

##### Create

We create sustainable and innovative ingredients that meet consumer needs.

C

##### Make

Our manufacturing sites all run flexible operations to consistently high standards and our suppliers share our ethical approach.

M

##### Sell

We have a direct selling model with sales, technical resource and warehousing local to our customers.

S

##### Customer product

Customers use our innovative and sustainable ingredients to enhance their products to meet their sustainability commitments and consumers' needs.

##### Consumer benefit

Through our customers' products, our ingredients improve consumers' lives including addressing their needs in sustainable ways.

## Value from people and Purpose

What makes us different	How we create value
<b>ALL</b> Purpose-led culture and our people	<ul style="list-style-type: none"> <li>We improve lives worldwide</li> <li>Attract and retain talent</li> </ul>
<b>ALL</b> Ambitious Commitment to be Climate, Land and People Positive by 2030	<ul style="list-style-type: none"> <li>Doing the right thing for our planet is part of delivering our Purpose</li> <li>We respond to increasing customer demand for sustainably created ingredients providing sustainable benefits in use</li> <li>We provide our customers with reliable sustainability data on our products</li> </ul>
<b>E</b> Extensive Open Innovation and Smart Partnering	<ul style="list-style-type: none"> <li>Collaboration accelerates and enhances sustainable product development</li> </ul>
<b>C</b> Valuable protected intellectual property know-how and innovation pipeline	<ul style="list-style-type: none"> <li>New and protected products grow valuable revenue streams</li> <li>Products with intellectual property and unique characteristics have higher value-add</li> </ul>
<b>C</b> Exceptional product performance, claims validation, quality testing and regulatory insight	<ul style="list-style-type: none"> <li>Reliable, high-quality and high-value ingredients build and maintain customer trust</li> <li>Identification of regulatory issues and opportunities during product development maintains customer loyalty and trust</li> <li>Ingredient transparency (what is in the product) is increasingly key for consumers</li> </ul>
<b>M</b> Flexible manufacturing model providing resilience	<ul style="list-style-type: none"> <li>Production focused on local flexible manufacture rather than continuous operation, ensuring profitability at lower utilisation and higher margins than peers</li> </ul>
<b>M</b> Selective acquisitions and capital investments, guided by our Purpose	<ul style="list-style-type: none"> <li>Growing position in high-growth niches augmented by acquisition of knowledge-based businesses</li> </ul>
<b>M</b> Supply chain transparency and traceability	<ul style="list-style-type: none"> <li>Reassurance that our supply chain is ethical, responsible and sustainable maintains customer trust</li> </ul>
<b>S</b> Intimate customer relationships	<ul style="list-style-type: none"> <li>Direct-to-customer selling model provides insight to improve product innovation and positioning</li> </ul>
<b>S</b> Agile local sales and R&D teams	<ul style="list-style-type: none"> <li>Local market insight and ability to respond quickly to changing customer needs help us to deliver for our customers every time</li> </ul>

"I know what Croda's Purpose is and how it applies to my role"

92% of R&D colleagues, 2020 pulse survey

Over 100 current innovation projects with increased sustainability focus

531 innovation partnerships since 2010

NPP sales as a % of total sales  
27.4% (2019: 28.1%)

Invested in acquisition of Avanti and Iberchem  
>£850m

Global online Live Chat use increased by 314% 2019-2020

Winner: Best supplier award 2020 from Syngenta

→ Our business model enables delivery of our strategic objectives of growth, innovation and sustainability. See page 22

### Our stakeholder ecosystem

This year, more than ever, we felt the value of working closely with partners and supporting every one of our stakeholders in our ecosystem. Our continued success and positive impact on the world will be driven by the strength of these relationships with others.

“...our success and our positive impact on the world are dependent on how we work with all of our stakeholders.”

Anita Frew  
Chair

### Our customers

We work in partnership with our customers to provide our innovative and sustainable ingredients in a way that meets their commercial and sustainability goals whilst delivering on our Purpose. Selling around 7,000 ingredients to over 17,000 customers gives us significant exposure to customers ranging from multinational companies to regional and independent brands.

→ See page 17



### Our shareholders

We maintain a two-way dialogue with our shareholders, so that they understand and support our strategy and can assess our Environmental, Social and Governance (ESG) performance.

→ See page 21



### Our communities

Employees at our sites worldwide are active members of their local communities. Understandably, our neighbours expect us to act responsibly, safely and sustainably. We take our commitment to our communities seriously, going further to make a positive difference and support them at times of need.

→ See page 20



### Our people

We have over 5,600 employees across 30 manufacturing sites and many more offices and laboratories worldwide. Our mix of scientists, engineers, sales, customer services, production and support function experts work together with a clear, shared Purpose, to use Smart science to improve lives™. The Croda culture and our values of 'Responsible', 'Innovative' and 'Together' focus and enable our work.

→ See page 16



## Our ecosystem



Manufacturing sites processing  
**99%**  
of our palm oil derivatives are RSPO certified

**Non-Governmental Organisations (NGOs)**

**Non-Governmental Organisations**  
NGOs rightly engage with businesses to encourage them to take responsibility for their impacts. Understanding their perspective helps us support our consumer-facing customers, maximise our positive sustainability impact and protect our reputation.



**220**  
active memberships of industry associations

**Regulators and Trade Associations**

**Regulators and Trade Associations**  
The Regulators and Trade Associations we work with are an essential part of our ecosystem. We collaborate and share expertise to ensure that our ingredients are compliant and aligned with regulations worldwide while providing a true and sustainable benefit to consumers.



**199**  
suppliers completed EcoVadis survey

**Our suppliers**



**Our suppliers**  
Supply chain integrity is critical to delivering a sustainable business. In addition to the usual criteria of quality and reliability, we choose suppliers who share our standards for ethics, labour and human rights, the environment and sustainable sourcing. We work closely to help them understand and align with our values and standards, providing them with best practice guidance and tools to measure, improve and promote their sustainability efforts.

➔ See page 18



**531**  
innovation partners

**Our innovation partners**



**Our innovation partners**  
Our R&D advances are increasingly driven by our innovation partnerships. These partners include leading international universities, SMEs, biotechnology companies, research institutes and our customers. Our Smart Partnerships and Open Innovation projects enable collaborations that focus on our Commitment to sustainability so that we can improve lives together.

➔ See page 19

### Section 172(1) Statement

The Board of Directors confirm that during the year under review, it has acted to promote the long-term success of the Company for the benefit of shareholders, whilst having due regard to the matters set out in section 172(1)(a) to (f) of the Companies Act 2006, being:

- a. the likely consequences of any decision in the long term
- b. the interests of the Company's employees
- c. the need to foster the Company's business relationships with suppliers, customers and others
- d. the impact of the Company's operations on the community and the environment
- e. the desirability of the Company maintaining a reputation for high standards of business conduct
- f. the need to act fairly between members of the Company

The information on pages 14 to 21 in the Strategic report should be read in conjunction with the information provided in the Corporate governance report on pages 50 to 105. The content on these pages constitutes our s.172 Statement, as required under the Companies (Miscellaneous Reporting) Regulations 2018.

## Our stakeholders



**Our people:** We have over 5,600 employees across 30 manufacturing sites and many more offices and laboratories worldwide. Our mix of scientists, engineers, sales, customer services, production and support function experts work together with a clear, shared Purpose, to use Smart science to improve lives™.

## Our people, culture and values

At Croda, we share a clear sense of Purpose and are motivated by our Commitment to be the most sustainable supplier of innovative ingredients. Our distinctive 'One Croda' culture guides the way we work and helps us to attract and retain the first-class people we need, by enabling collaboration and skills development. To ensure our long-term success, we have defined the values that make us different as a Company, encouraging our people to be 'Responsible', 'Innovative' and to work 'Together.'

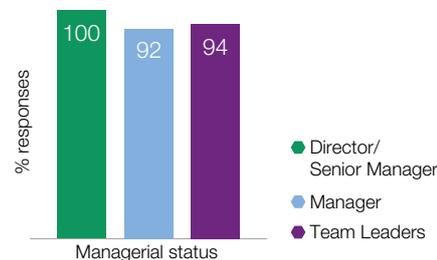
### Working together

During the pandemic, our people have been outstanding. Whether as part of a socially distanced onsite manufacturing team or from home while juggling caring commitments, they have kept delivering for our customers. We have supported and listened to our people in many ways including pulse surveys, newsletters, webcasts, video team meetings, listening groups and social networks.

Despite the challenges, close to 100% of our people completed some form of training this year. We have also added 2,000 online courses to our learning management system and introduced a new secondment scheme to accelerate career development.

In 2020 we ran 11 pulse surveys; five related to COVID-19, four related to the roll out of our Purpose and two focused on engagement. The engagement pulse surveys achieved an average 75% response rate.

### Croda Purpose and application to role



Percentage of managers in Global R&T who answered "agree" or "strongly agree" to the statement "I know what Croda's Purpose is and how it applies to my role".

### Facing the COVID-19 challenge

During the global pandemic, our people were affected by uncertainty and practical impacts. They were naturally concerned for their safety, for the health of their loved ones and for their financial security. To support them we:

- set out early in the pandemic that we would not be furloughing staff or making people redundant;
- applied strict safety protocols for people working on our sites including PPE, hand sanitiser, remote handovers and social distancing procedures;
- supported staff working at home;
- protected pay and benefits so that those self-isolating, unwell or with caring responsibilities were supported; and
- provided wellbeing programmes.

### Our people and our sustainability Commitment

As part of our Commitment to be People Positive by 2030, we are encouraging and promoting diversity. This year we have established a programme to understand our diverse representation in terms of race/ethnicity, sexuality and disability. We published flexible working guidance globally and are running a mentoring programme, as part of a continued drive to improve gender diversity, with the aim of doubling the number of women in senior decision-making roles by 2025 and achieving overall gender balance by 2030.

For more information on the progress we are making see the People Positive update see p35.



75%

average pulse survey response rate

### Keeping our colleagues safe and feeling supported through COVID-19

The health and wellbeing of our employees throughout the COVID-19 pandemic is our primary concern. We had to swiftly respond to changing needs to keep employees safe whilst working and continuing to manufacture our ingredients, many of which are used in items critical to combating the virus.

Our CEO and leaders at every level of the Company globally gave regular updates, held town hall meetings, recorded videos and sent out written communications. We also published short pulse surveys to provide employees with a way of sharing anonymous feedback about how they were feeling and how the Company was managing the crisis from their perspective. Local managers also encouraged feedback and maintained contact with staff working remotely through online quizzes, digital coffee breaks and even virtual cocktail hours.

Early in the pandemic, we assured all employees that there were no plans to reduce employee numbers or reduce regular salaries and benefits as a result of COVID-19. We understood some employees needed to balance caring responsibilities and work, so encouraged people to work flexibly as required.

For those employees working onsite, we focused on making life as easy and as safe as possible – with remote handovers, provision of PPE including hand sanitiser, and training in new procedures to keep everyone safe.

Where employees, especially those working shifts, reported that they were struggling to access essential food items, which were in short supply at points during the first wave of the pandemic, we arranged for food and cleaning items to be made available for home use.

There was an important focus on mental health in all our regions and we increased the provision of Employee Assistance Programmes in some countries and provided direct access to doctors and medical teams. We delivered online training courses aimed at the management of safety and health during the pandemic including mental health. In addition, our employees recorded podcasts sharing specific tips and information about safety and wellbeing.

We continued to operate as close to normal as possible during the pandemic, offering support and flexibility to our employees whose commitment has been outstanding in such difficult circumstances. They continued to work hard for our customers despite the challenges they faced.



**Our customers:** We work in partnership with our customers to provide our innovative and sustainable ingredients in a way that meets their commercial and sustainability goals whilst delivering on our Purpose. Selling around 7,000 ingredients to over 17,000 customers gives us significant exposure to customers ranging from multinational companies to regional and independent brands.

## Our customers, insight and excellence

We work in partnership with over 17,000 customers, large and small, to provide our innovative and sustainable ingredients in a way which meets their commercial and sustainability goals while delivering on our Purpose. By selling direct to customers and collaborating with them at our 46 innovation centres around the globe, we gain a detailed insight into their current and future needs, helping us to identify new opportunities.

With regulations an increasingly important driver of customer requirements, we also work closely with Regulators and Trade Associations to gather intelligence, ensure that our ingredients are compliant with regulatory frameworks worldwide, and advocate for more stringent targets to improve the sustainability of our industry as a whole (see p15 of this document or p39 of our Sustainability Report for more).

### Working together

2020 tested and confirmed our levels of customer intimacy as we were able to continue delivering for our customers through our focus on health and safety.

Despite the pandemic, we enhanced our customer relationships in emerging markets, more than doubling our footprint in the Middle East and Africa when we acquired Iberchem, and enhancing our network in Asia through investment in sales, digital, technical and production capabilities.

To help increase our focus on consumer ingredients for our Home Care and Personal Care customers, we have created a new Consumer Care sector. Through the Iberchem acquisition, we also extended our full-service offering to customers by adding fragrances to our range and formulation capabilities.



**Nicole Schumacher**  
Global Account  
Manager



### Recognition for supporting customers with their sustainability goals and good service

This year the Crop Protection team within our Life Sciences sector were delighted to win the Syngenta Supplier Partnership Award at their 2020 Virtual Syngenta Supplier Conference. The event, held every two years, is an opportunity for Syngenta to speak directly to its suppliers about their strategy and direction, and for them to recognise and celebrate those suppliers who make the most significant contributions.

In presenting the Supplier Partnership Award to Croda, Marie-Odile Zink, Head of Co-Formulants Procurement at Syngenta, highlighted Croda's great customer service and responsiveness, our innovation and support on multiple projects around the world, and especially our support of Syngenta's sustainability goals.

Nicole Schumacher, Croda's Global Account Manager for Syngenta also said: "It is encouraging to see the degree of alignment between both companies around innovation and sustainability. It is great to see our hard work and commitment being acknowledged in this way."

### Facing the COVID-19 challenge

Across our business, our direct-selling model and unique level of customer intimacy were maintained as everyone transitioned into the 'virtual world' due to COVID-19. Attendance numbers for our regular webinars and use of our Live Chat facility increased. Our continued investments in our digital capabilities helped our global selling network to continue to provide unrivalled customer contact through instant access to our expertise and a more personalised digital experience.

With multiple touch points located close to our customers locally, and our digital capabilities, we have worked in partnership to understand changing customer needs and product demands during this pandemic. We have also supported customers with flexible payment terms and have prioritised manufacture and supply of our ingredients for applications that are combating COVID-19. These range from sanitisers to PPE and crucially our pharmaceutical excipients now established in a global COVID-19 vaccine.

### Our customers and our sustainability Commitment

The strength of our customer partnerships provides immediate insights and fuels our continuous innovation. This drives the creation of ingredients to help these customers to meet their own sustainability goals by providing a benefit in use with reduced environmental impact. In parallel we are able to continue to align our business with the United Nations Sustainable Development Goals (SDGs) and meet our own Commitment.

**314%**

increase in online  
Live Chat  
since 2019



**Our suppliers:** Supply chain integrity is critical to deliver a sustainable business. In addition to the usual criteria of quality and reliability, we choose suppliers who share our standards for ethics, labour and human rights, the environment and sustainable sourcing. Our partnership with our suppliers goes beyond acquiring products and services. We work closely to help them understand and align with our values and standards, providing them with best practice guidance and tools to measure, improve and promote their sustainability efforts.

### Our suppliers and shared values

Our suppliers play an integral role in our ability to create, make and sell our diverse range of innovative ingredients and, in return, we are committed to sharing benefits equitably across the supply chain. Our partnership with suppliers goes beyond acquiring their products and services. We source from those who share our values and help them to measure and improve their sustainability credentials. We partner with EcoVadis, a global supplier audit firm, to ensure suppliers are operating safely, ethically and responsibly, and to drive improved practices.

Most of our carbon emissions lie within our supply chain. To achieve our Science Based Targets, we collaborate with suppliers and work with CDP Supply Chain, a not-for-profit global disclosure charity, to collate data about their environmental impact.

### Working together

In 2020 we appointed a Global Head of Sustainable Sourcing to strengthen supplier relationships and to improve product composition data, enabling us to meet our commitment to deliver ingredient transparency to our customers. We issued a new Code of Conduct to ensure clear communication of our sustainability standards to suppliers globally.

We also work closely with Non-Governmental Organisations representing consumer interests on issues such as the sustainable sourcing of palm oil derivatives. Understanding their perspective on supply chain management helps us support our customers, maximise our positive sustainability impact and protect our reputation (see p38 of our Sustainability Report for more).

### Facing the COVID-19 challenge

Supply chains have been tested during 2020. Our strong supplier partnerships enabled us to maintain the supply of raw materials and services to our sites with minimal disruption. In return, we have offered flexible payment terms to suppliers, so that they can benefit from the strength of the Croda business model.

### Our suppliers and our sustainability Commitment

Supply chain integrity is critical to deliver a sustainable business. Our choice of suppliers will continue to be fundamental in helping us achieve our 2030 targets. We did not let the challenges of 2020 distract us from our Commitment and have continued supplier engagements through RSPO Certification, CDP Supply Chain and EcoVadis assessments. This work will continue into 2021 and beyond until we have full transparency in all aspects of our supply chains.



Photo courtesy of Karène Volpato / UEBT



The Union for Ethical BioTrade (UEBT) is a non-profit association that promotes sourcing with respect. This year, Sederma, our skin actives business, became a fully accredited member of the UEBT. This means Sederma commits to continuously develop and integrate ethical sourcing practices in plant collection areas, respecting traditional know-how, improving the living conditions of local populations, and mastering traceability of raw materials of natural origin.

199

suppliers completed EcoVadis survey



**Our innovation partners:** Our R&D advances are increasingly driven by our innovation partnerships. These partners include leading international universities, SMEs, biotechnology companies, research institutes and our customers. Our Smart Partnerships and Open Innovation projects enable collaborations that focus on our Commitment to sustainability so that we can improve lives together.

## Our innovation partners and NPP

Our innovation strategy combines internal R&D with external technology investments and Open Innovation partnerships, which create unique opportunities to collaborate with leading scientists in universities and SMEs. These partnerships enable us to access world-class expertise and facilities to drive innovation whilst reducing time-to-market. They also allow us to share our know-how about formulations and the commercial application of science with our partners.

Together we are finding new ways to develop ingredients and manufacturing processes that deliver better results for our customers with less impact on the planet. Over the last ten years, the strategic importance of Open Innovation partnerships has grown significantly, as has the number of partnerships we enter and projects we create. Our partners contribute to the high proportion of New and Protected Products we sell and the continued differentiation of our ingredient portfolio.

### Working together

The technology investments we made in 2020 are aligned with our sustainability strategy, allowing us to offer innovative metal oxides for sun protection, cellulose powders made from by-products of the Canadian forestry industry for skin care, and probiotic cleaning agents for home care. We currently run over 100 active Open Innovation projects, involving our top Croda scientists working alongside our partners, from world-leading academics to major international customers, to develop new products and processes.

## Open Innovation partners and initiated projects



### Facing the COVID-19 challenge

One third of the 46 innovation centres that we operate globally remained open throughout the pandemic and all returned to operation during the year, providing access to our R&D teams and protecting our future innovation pipeline.

Although many of our sponsored PhD students were sent home as universities closed, we held meetings online, reviewing progress and setting priorities, so that work could continue. We also extended funding arrangements for PhD students where necessary.

### Our innovation partners and our sustainability Commitment

Many of our Open Innovation partnerships focus on improving processes and ingredients as part of our Commitment to be Climate, Land and People Positive by 2030. For example, we work with partners to help access the latest scientific advances in biotechnology. Each project aims to either improve the sustainability of the way we manufacture our ingredients or create new ingredients that deliver sustainability benefits for our customers and their consumers.



## Our stakeholders continued



**Our communities:** Employees at our sites worldwide are active members of their local communities. Understandably, our neighbours expect us to act responsibly, safely and sustainably. We take our commitment to these communities seriously, going further to make a positive difference and support them in their times of need.

## Our communities and why they matter

We rely on the trust of people in our local communities to operate effectively and deliver for our customers. Understandably, our neighbours expect us to act responsibly, safely and sustainably, but we go further and aim to make a positive difference. Our 1% Club, launched over 15 years ago, enables all employees to give 1% of their working time to charitable activities, targeting local communities. We also aim to create educational opportunities for local students, particularly those studying “STEM” subjects: Science, Technology, Engineering and Maths.

We have paid a living wage to all UK employees since 2018. Through our partnership with the Fair Wage Network, and commitment to pay the living wage to all regularly employed contractors as well as employees by the end of 2024, we are helping to provide financial security across our communities globally.

### Working together

This year more than ever we have reached out to support our local communities in their time of need. Through our Acts of Kindness initiative, established to support our local communities during the COVID-19 pandemic, our employees nominated local charities and causes where we could make a difference.

For the longer term we have incorporated the Croda Foundation, to deliver our People Positive Commitment of applying our innovation to increase the positive impact we make on society. The Foundation is an independent charitable trust, solely funded by Croda, but with its own Board of

Trustees and a global reach. Its role is to oversee the delivery of philanthropic projects sponsored by Croda, prioritising those that use our smart science and technologies to improve the lives of people in the communities where we operate.

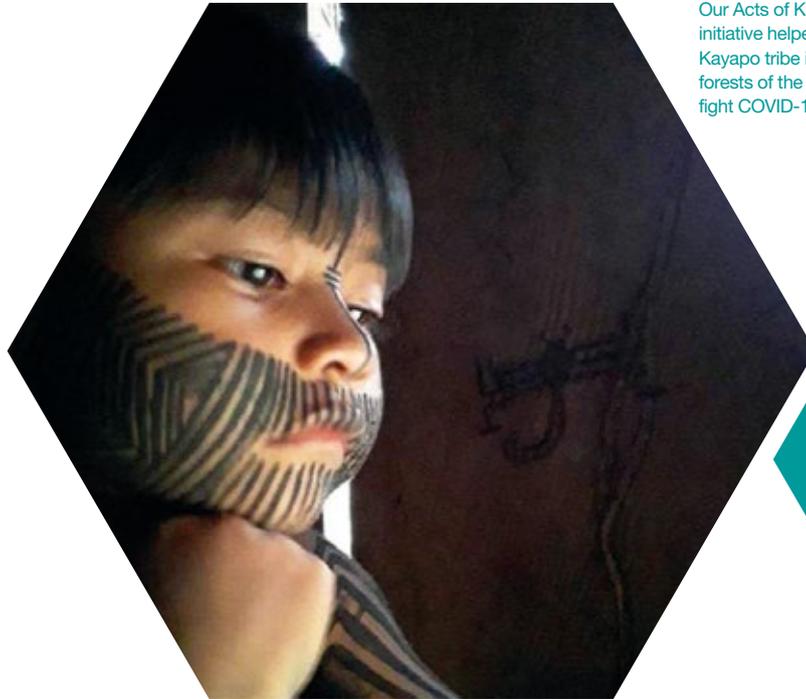
### Facing the COVID-19 challenge

Many of our communities worldwide have been impacted by the pandemic, with concerns for safety, virus control and financial insecurity. We have responded through our Acts of Kindness initiative, providing acute relief and support to those facing hardships. Our popular STEM programme has proved

particularly useful during this time of increased home-schooling for children. Our sites have kept local communities informed about our response and used their smart science to make items such as hand sanitisers available to local schools, nurseries and residential homes for the elderly.

### Our communities and our sustainability Commitment

During 2020 we incorporated the Croda Foundation. We aim to improve the lives of one million people in the communities in which we operate by 2030, a key pillar of our Commitment to be People Positive.



Our Acts of Kindness initiative helped the Kayapo tribe in the forests of the Amazon to fight COVID-19

Acts of Kindness fund  
£200k



**Adriana Nobre**  
Operations Head  
for Latin America

### Acts of Kindness reach the Kayapo tribe in the Amazon forest

In April we offered our employees the opportunity to nominate local causes and charities to receive a £10,000 of support from their Croda location. In total, we set aside a fund of £200,000 for this Acts of Kindness activity and our teams reacted immediately, nominating a wide variety of worthwhile causes and vulnerable groups to help.

In Brazil, our Campinas-based team used their fund to support several local groups. They donated personal hygiene items to a local nursing home for the elderly and provided food boxes for residents of a favela, helping 200 of the most vulnerable local families. The food boxes supplied a month's worth of food and each family received these boxes for four months.

The Brazilian team also gifted 100,000 soap bars to the Kayapo, an indigenous tribe living in the Capoto-Jarina reservation in the Amazon forest.

Increased hand washing with soap is an effective way to help prevent the spread of COVID-19 and this donation is helping indigenous peoples in the region to protect themselves from the pandemic.

Access to soap is difficult for these tribes as they do not live in a cash economy and together with the absence of medical assistance, this leaves them extremely vulnerable to the pandemic and to other health issues. They often live in remote villages where access is challenging and resources are limited.

Adriana Nobre, Director and Operations Head for Latin America said “This is a cause that is very close to the hearts of my team and they were particularly proud and happy to be able to step forward and help with a Croda Acts of Kindness donation. The whole team was excited to provide this support which made a difference to the vulnerable but important Kayapo communities who play a key role in the protection of our environment.”



**Our shareholders:** We maintain a two-way dialogue with our shareholders so that they understand and support our strategy and can assess our Environmental, Social and Governance (ESG) performance.

£627m

of new equity to part-fund the acquisition of Iberchem



## Our shareholders and open dialogue

We are committed to considering shareholder interests and maintaining open and regular dialogue with them as the owners of our Company and main source of long-term funding.

### Working together

In November we raised gross proceeds of £627m new equity to part-fund the acquisition of Iberchem, the largest M&A-related placing on the London Stock Exchange in 2020. We followed the principle of pre-emption, ensuring existing institutional shareholders received at least their pro-rata allocation. We also allocated the maximum permitted number of shares to smaller shareholders and employees through a separate retail offer.

### Facing the COVID-19 challenge

At the start of the outbreak, in line with investor focus on business continuity, we undertook extensive scenario testing which confirmed Croda had sufficient liquidity to absorb extended uncertainty.

We provided more regular and detailed disclosure during the COVID-19 crisis, publishing trading updates and more detailed information about our employees and other stakeholders. We also embraced digital communications to engage investors at virtual conferences and events.

Croda's business model has proven resilient with all but two of our 19 principal manufacturing sites operating without material disruption throughout the pandemic. This resilient performance, combined with prudent leverage and dividend distribution over many years, enabled us to pay dividends to shareholders in line with the Board's commitment to treat all stakeholders fairly.

### Our shareholders and our sustainability Commitment

We continue to increase engagement on ESG topics with both non-holders and long-standing shareholders and see an increasing proportion of specialist investors on our register.

As well as hosting an investor seminar on sustainability in October which attracted 250 participants, we created a single "sign-posting" website page and a data pack collating non-financial information for investors. Priorities for 2021 are continued assessment of the carbon benefits of Croda's products in use and the application of the EU taxonomy to Croda.

For more information on our communication with shareholders see page 60.

### Equity placing

- £627m (gross proceeds) raised through institutional and retail offers
- Institutional offer c4x oversubscribed
- Over 100 institutions supported the institutional offer
- c75% placing allocated to existing shareholders
- Retail offer c2x oversubscribed
- Maximum retail allocation permitted under UK regulations

## A strategy for a changing world

Our corporate strategy and our sector priorities are clearly linked to our Purpose, to use our Smart science to improve lives™. They are enabled by our business model and powered by our people and strong relationships across our entire stakeholder ecosystem. This long-established strategy delivers value for shareholders, even in years of change and challenge worldwide.

Group strategic objective	We achieve this through	What we have done in 2020	Our priorities in 2021
 <p><b>Growth</b></p> <p>Consistent top and bottom-line growth, with profit growing ahead of sales, ahead of volume.</p>	<ul style="list-style-type: none"> <li>• Sharing a clear Purpose</li> <li>• Applying a strong and resilient business model (p12)</li> <li>• Using our unrivalled local selling capability, with local, direct and digital selling</li> <li>• Creating a balanced global manufacturing footprint</li> <li>• Following a proactive and targeted M&amp;A programme, investing in high-return opportunities</li> <li>• Applying a disciplined approach to capital allocation</li> </ul>	<ul style="list-style-type: none"> <li>• Acquired Avanti Polar Lipids LLC, a US-based business creating delivery systems for pharmaceutical products, expanding our portfolio in Life Sciences (p26)</li> <li>• Acquired Iberchem, a global Fragrances and Flavours business, strengthening our presence in consumer care markets (p24)</li> <li>• Delivered increased sales despite the pandemic, driven by second half recovery and acquisitions</li> <li>• Invested over £120m in further manufacturing capability, including speciality excipients, and opportunities that leverage Avanti's expertise</li> </ul>	<ul style="list-style-type: none"> <li>• Increase capability in sales, marketing, R&amp;D, digital expertise and skills in Asia</li> <li>• Realise the value of a new full-service offering for Personal Care and Home Care through our new Consumer Care sector</li> <li>• Continue to scale our drug delivery business</li> <li>• Integrate our acquisitions</li> </ul>
 <p><b>Innovation</b></p> <p>The lifeblood of our business, we seek to increase the proportion of NPP (New &amp; Protected Products) that we sell.</p>	<ul style="list-style-type: none"> <li>• Investing in our own R&amp;D application and regional innovation centres</li> <li>• Working closely with customers to better understand their needs</li> <li>• Identifying disruptive technologies</li> <li>• Working with Open Innovation partners</li> </ul>	<ul style="list-style-type: none"> <li>• Enabled our R&amp;D teams to access laboratories safely during COVID-19 restrictions, protecting our future innovation pipeline</li> <li>• Added proprietary lipid technology to our capabilities in drug delivery systems through the acquisition of Avanti</li> <li>• Upgraded innovation centres in Shanghai, the UK and USA enabling us to work more closely with local and global customers</li> <li>• Continued to invest in our digital programme across the create, make and sell areas of our business model (p12)</li> </ul>	<ul style="list-style-type: none"> <li>• Scale our biotechnology expertise, increasing investment and smart partnerships to scale up, in line with sector and sustainability goals</li> <li>• Continue to build our digital capability in knowledge management</li> </ul>
 <p><b>Sustainability</b></p> <p>Aligning our business with our Purpose and accelerating our customers' transition to sustainable ingredients</p>	<ul style="list-style-type: none"> <li>• Creating ingredients that provide a benefit in use with reduced environmental impact</li> <li>• Aligning our business with the United Nations Sustainable Development Goals (SDGs)</li> <li>• Identifying the short, medium, and long-term time horizons and specific climate-related risks and opportunities which could have a material financial impact on us</li> </ul>	<ul style="list-style-type: none"> <li>• Established interim goals against which we are measuring our progress towards meeting our 2030 sustainability Commitment</li> <li>• Developed decarbonisation roadmaps for our top ten carbon-emitting sites</li> <li>• Continued to increase the positive impact of our actions and deliver benefits for our customers and consumers</li> <li>• Started to replace traditional petrochemical surfactants with our ECO range of bio-based products</li> <li>• Identified impacts to products and our supply/value chain under various climate-related scenarios. Identified adaptation and mitigation activities and invested in R&amp;D and operations to increase resilience</li> </ul>	<ul style="list-style-type: none"> <li>• Continue assessment of the carbon benefits of Croda's products in use</li> <li>• Begin implementation of decarbonisation roadmaps for our top ten sites</li> <li>• Develop decarbonisation roadmaps for our other sites</li> <li>• Continue to monitor where our strategies may be affected by climate-related risks and opportunities, extending work already done for recent acquisitions</li> </ul>

**KPIs**

- Core Business sales growth %
- Return on sales %
- Adjusted basic earnings per share (EPS)
- Operating profit, earnings per share growth as well as relative Total Shareholder Return are metrics used for executive remuneration (p80)

**Risks**

- Revenue generation in established and emerging markets
- Our people — culture, wellbeing, talent development and retention

- New and Protected Products (NPP) % of Group sales
- An NPP metric is used for executive remuneration (p80)

- Product and technology innovation and protection
- Digital technology innovation
- Our people — culture, wellbeing, talent development and retention

- Total Recordable Injury Rate
- Absolute scope 1 and 2 emissions and scope 1 and 2 emissions intensity
- Land area saved
- Number of lives improved (through the use of Croda ingredients)
- KPIs aligned to the delivery of our Climate and Land Positive Commitments are used for executive remuneration (p80)

- Delivering sustainable solutions — Climate Positive
- Product quality/liability claims
- Loss of significant manufacturing site
- Suppliers and raw material security
- Product stewardship and chemical regulatory compliance
- Ethics and compliance

**Strategic priorities**

**By sectors**

**Strengthen to Grow Consumer Care\***

Already recognised as the leading market innovator, we will strengthen growth in our Personal Care business. With the acquisition of Iberchem, together with unlocking the high growth potential of our Home Care business, 2021 will see these three legs consolidated into a Consumer Care sector.

\* Reported as Personal Care in 2020.

➔ See page 24

**Expand to Grow Life Sciences**

With its growing margin and exciting technologies aligned to global health and crop sustainability trends, we continue to build our Life Sciences brand as a high value-add solution provider to our pharmaceutical and crop customers.

➔ See page 26

**Refine to Grow Performance Technologies**

We are refining Performance Technologies to focus on high-tech markets and reduce exposure to cyclical business.

➔ See page 28

**Across sectors**

**More proactive M&A**

**Deliver fast growth in China**

**Scale biotechnology**

**Build our digital capability**

**Robust global supply chain**

**Employer of choice**

➔ See page 38

➔ See page 46

## Sector review

**Personal Care:** Our smart science is helping our customers, large and small to create formulations with improved environmental profiles for thousands of personal and home care products while delivering clear benefits to consumers.

**Sector President:** Maarten Heybroek

# The performance of the Personal Care sector was significantly affected by lockdowns initiated in response to COVID-19

## Second half sales recovery but profit mix impacted by consumer lockdowns

The performance of the Personal Care sector was significantly affected by lockdowns initiated in response to COVID-19. This negatively impacted sales by reducing consumer demand for products associated with 'going out' and by interrupting sales channels, particularly for prestige products. In this environment, consumer products sold in supermarkets or online performed best. For Croda, this mix change had a negative impact on the return on sales, with a higher proportion of sales of 'at home' use Beauty Formulation products and a greater sales reduction in the higher-margin Beauty Actives and Beauty Effects businesses.

In Asia, China rebounded quickly during the first half of the year, but sales remained subdued in the key regional manufacturing markets of Japan and South Korea due to less tourism, as well as in South Asia which experienced extended periods of lockdown. Europe was also negatively impacted by lockdowns, with the near-closure of the French cosmetic industry and luxury shopping channels for several weeks during the second quarter. By contrast, sales in North America remained robust throughout the year and Latin America also improved in the second half year.

Sales declined by 1.8% and adjusted operating profit by 15.3%, both in constant currency. The profit reduction reflected a sales price/mix decline of 5%, reflecting the weaker business mix, while volume was just 1% lower and acquisitions added 4%. In reported currency, sales were 1.9% lower at £475.9m (2019: £485.2m) and adjusted operating profit was £136.5m (2019: £162.1m). Return on sales reduced to 28.7% (2019: 33.4%). This lower profitability reflected the adverse mix effect, an increased share of the ECO plant loss and the diluting effect of the Iberchem acquisition. IFRS operating profit was £123.0m (2019: £158.2m).

Excluding the Iberchem acquisition, underlying sales in Personal Care were 6% lower than prior year. Sales in Beauty Formulation, with its portfolio of heritage ingredients, declined by less than 5%. Sales in Beauty Actives and Beauty Effects were each down by around 10%, with Beauty Effects impacted through its exposure to social and travel categories, such as sun protection and colour cosmetics, and Beauty Actives by the disruption to consumer distribution channels for prestige products, particularly in France and North Asia, where consumer brands were more impacted by

store closures, having less well developed on-line presence.

Our performance since lockdowns began has been consistent with broader published consumer sales data for Personal Care and Beauty, which reported declines of 3% in the US and 8% in Europe. During the year, our sales reached a low in May, down almost 20% on the prior year, but then enjoyed month-on-month recovery, with underlying fourth quarter sales encouragingly returning to prior year levels and a relative improvement in Beauty Actives and Beauty Effects.

## 'Strengthen to Grow' strategy

The drivers behind Personal Care's 'Strengthen to Grow' strategy remain unchanged – the continued rise in disposable income especially in emerging markets, coupled with a desire for improved wellbeing, an ageing population, greater use of digitalisation, continued market fragmentation amongst our customers and accelerating demand for sustainable consumer products. As the leading innovator in our sector, we are well placed to capitalise on these trends through our presence in every major market, strong innovation pipeline and sector-leading margin.

In Personal Care our strategy is to:

- Continue to scale our industry-leading Beauty Actives business which creates our most valuable claims-based skincare ingredients. Beauty Actives has continued its industry-leading innovation, expanding in biotechnology to create greener active ingredients. 2020 saw the launch of Synchrolife™ from Sederma, which counteracts the harmful effects of digital pollution, the development of Silverfree™, a biologically active ingredient to combat the greying of hair, and expansion of botanical ingredients from Crodarom. With its sales more weighted towards 'masstige' markets and toiletries, Crodarom continued to grow in 2020 and we are developing growth plans for Asia and market adjacencies. We have recently agreed to acquire botanicals specialist Alban Muller to expand our portfolio of natural active ingredients for a total consideration of €25m;
- Broaden the product portfolio in Beauty Effects, which offers similar growth and innovation potential to Beauty Actives, through organic innovation and partnerships. Despite its exposure to 'going out' products, Beauty Effects delivered new product

launches in 2020, increasing NPP to 80% of sales and meeting consumers' sustainability and lifestyle needs. New products included Keramatch™ V, a vegan alternative to keratin to improve damaged hair; and

- Continue to reinvent Beauty Formulation, through greater product differentiation and unmatched formulation expertise for our customers. 2020 saw our first waterless formulations and new opportunities for our ECO range of bio-based ingredients.

As we broaden our Consumer Care strategy, we are targeting enhanced top-line growth through:

- The acquisition of Iberchem, a strong regional player in mid-sized and smaller customers. This accesses a new high-growth adjacency and creates a 'one-stop-shop' for those customers, combining Croda's critical ingredients with Iberchem's on-trend fragrances in stable formulations. With over 50% of its sales in Africa and Asia, including 25% in China, Iberchem has a strong emerging market presence, providing significant opportunities for revenue synergies as we leverage the respective Croda and Iberchem customer networks. We will further differentiate Iberchem's position by driving a transition to more sustainable fragrance materials; and
- The integration of Croda's Home Care business, which is expected to continue to grow from a strong 2020 performance, driven by greater hygiene demand, our ECO household cleaners, and our innovative fabric conditioner protein technology. This won a 'Brilliance' award from Unilever as part of its Clean Future programme to replace fossil-based ingredients in its home care products.

This strategy is supported by a robust innovation pipeline. NPP products represented 41% (2019: 43%) of 2020 sector sales, the slight decline reflecting the business mix impact. To respond to growing consumer demand for sustainable ingredients and the 'clean beauty' trend, where consumers want to know what is in the products they use, as well as how well they perform, we are developing our ingredient transparency platform and helping our customers deliver their sustainability objectives. Croda's R&D investment and capital investment have established our leadership in helping customers move away from traditional petrochemical ingredients. This is complemented by 36 Open Innovation projects with partners; these include natural cellulose powders for skin texture application produced from sustainably harvested pulp, and first sales of innovative metal oxides for sun protection.

We are also investing in digital to meet customer needs more quickly and effectively. 2020 saw a focus on customer webinars, roll out of Live Chat globally and the launch of a locally hosted and designed website for Chinese customers resulting in a 350% increase in website traffic in China.



“

The Croda sustainability Commitment to become Climate, Land and People Positive by 2030 was a key consideration in Croda’s acquisition of Iberchem. We both share a drive to advance the sustainability of practices in this sector as well as improving people practices more widely.”

**Guillaume Audy**  
Director of Sustainability at Iberchem

**Iberchem acquisition: stepping into the fragrance and flavours market**

In November 2020, we announced our acquisition of Iberchem, an international fragrances and flavours business headquartered in Spain. The deal represents the largest acquisition in our long history and a well-timed step into this strongly aligned market.

At the crossroads of science and creativity, Iberchem brings a new range of fragrance and flavour products to our portfolio, creating a ‘one-stop-shop’ for personal care and home care customers. An agile and fast-growing company, Iberchem generates over 80% of its revenue in emerging markets and has delivered a steady double-digit growth track record of more than twice the average of its sector.

Iberchem and Croda management teams have known each other for many years and there is a great level of commitment and understanding between both teams. When Iberchem began a search for a long-term partner that would preserve the identity of the company,

while supporting growth ambitions over the long term, Croda was a perfect fit. Iberchem will also benefit from Croda’s leadership position in sustainability, transitioning its raw material portfolio, a potential differentiator in the market.

Fragrances and flavours embody very well Croda’s Purpose of using Smart science to improve lives™. As sensory considerations become more important to consumers, fragrances have been reported as the primary purchase driver in various personal care and household products. They are also an emotional trigger with the power to boost wellbeing.

Guillaume Audy, newly appointed Director of Sustainability at Iberchem, said “The Croda sustainability Commitment to become Climate, Land and People Positive by 2030 was a key consideration in this acquisition. We both share a drive to advance the sustainability of practices in this sector as well as improving people practices more widely.”

**An encouraging starting point on sustainability**

- 100% of the water used in the Iberchem production plant in Murcia, Spain, is recycled by an Authorised Waste Management Company.
- In November 2020, a photovoltaic system was installed that will avoid the emission of 171.74 tonnes of CO<sub>2</sub> annually.
- In its commitment to protecting the health and safety of its employees, Iberchem’s head office received ISO 45001 certification in 2020. This is a first step in our ambition to certify each of the Iberchem production centres.

## Sector review continued

**Life Sciences:** We reach customers worldwide with our ingredients to deliver health care solutions, protect crops and enhance seeds. From our vaccine technologies to microplastic-free seed coatings, we are using our smart science to improve lives everywhere.

**Sector President:** Nick Challoner

# 2020 marked another record year for sales and profit in Life Sciences, with COVID-19 creating new Health Care opportunities as the year developed

## Sales

£401.6m

2019: £350.5m

## Adjusted operating profit

£129.4m

2019: £107.1m

## Record performance driven by move to patient health care

2020 marked another record year for sales and profit in Life Sciences, with COVID-19 creating new Health Care opportunities as the year developed. In Health Care, continued growth in speciality excipients and vaccine adjuvants was complemented by the acquisition of Avanti Polar Lipids, LLC and a contract to supply Pfizer with components for their COVID-19 vaccine. Crop Protection continued to grow sales, net of planned product withdrawals, and Seed Enhancement delivered double-digit revenue growth. Life Sciences is now well established as a fast-growth, high-value leg of Croda's business model.

Sales increased by 14.8% and adjusted operating profit grew by 25.4%, in constant currency. This was driven by volume growth of 7% and unchanged price/mix, whilst acquisition added 8%. In reported currency, sales were up 14.6% at £401.6m (2019: £350.5m), with adjusted operating profit 20.8% higher at £129.4m (2019: £107.1m). Return on sales strengthened to 32.2% (2019: 30.6%), reflecting the sector's continued migration to higher value-add technologies. IFRS operating profit was £117.2m (2019: £97.7m).

The Health Care business saw constant currency sales increase by almost 30%, with an expanded number of technology platforms in drug and vaccine delivery systems. Speciality excipients again delivered strong sales growth, driven by the expansion in parenteral drugs using biologic actives, with their complex stabilisation needs. We continued to build on our leading position in this niche market by launching new excipients, expanding our sales and

technical capability globally, and through organic investment to double manufacturing capacity in the US. Following the acquisition of Biosector in 2018, we are also a leading supplier of vaccine adjuvants which help trigger the body's immune response to vaccines. Our vaccine adjuvant business delivered strong sales and profit growth in 2020, benefiting from synergies with the Croda selling network.

In August we completed the acquisition of Avanti for an initial consideration of US\$185m. Avanti adds a new drug and vaccine delivery technology through its industry leadership in lipid-based systems. In addition to an established business supporting pharmaceutical drug development, Avanti's lipid nanoparticle (LNP) system is increasingly attractive for use in complex therapeutic drugs and next-generation mRNA vaccines, expected to become a fast-growing part of the market. The acquisition combines Avanti's leading position in early-stage pharmaceutical research with Croda's expertise in commercial scale-up, a market in which Avanti could not previously participate.

Avanti had already been working on COVID-19 vaccine development at the time of acquisition, with Croda working as its scale-up partner. We redirected significant resource away from other projects to focus on supporting this vital global need. This development work led to a five-year non-exclusive contract to supply lipid components into the Pfizer-BioNTech COVID-19 vaccine, which we initially estimated would generate approximately US\$100m of sales in 2021 if the customers' publicly indicated volumes were required. Based on contractual commitments received to date, we now expect a minimum of US\$125m sales in 2021 for this vaccine. Croda is also supporting over 60 other COVID-19 vaccine and therapeutic drug development projects.

Crop Protection revenue was broadly flat, despite the headwind from our voluntary withdrawal from products with a negative environmental footprint. After a weaker first half year, sales recovered in the second half, reflecting phasing because of a later planting season in Latin America. Sales in North America recovered from the impact of the 2019 China trade dispute and Asia grew strongly, thanks to new resource investment in the key crop markets of China, part of our 'fast grow' strategy, and India. We reinforced our position

as innovation partner to the four largest agriculture multinationals, providing increasingly sustainable delivery systems. Syngenta awarded Croda its Supplier Partnership Award for 2020. New product innovation included Hydravance™ 200, which retains moisture in the soil, and Atplus™ DRT-EPS, to reduce pesticide drift. Beyond the crop majors, sales grew double-digit percentage with smaller customers. The Plant Impact biostimulant technology, acquired in 2018, is now fully integrated into the crop business, and significantly improved its profit performance in 2020.

Our Seed Enhancement business delivered double-digit percentage revenue growth in 2020, following some short-term insourcing by customers which had adversely impacted 2019. North America sales were resilient, despite reduced demand for vegetable crops associated with restaurant closures due to COVID-19. Europe, Asia and Latin America all drove the strong growth. Sustainability remains a key driver of future opportunity and, in 2020, we launched our novel patented technology to create coatings that are free of microplastics for vegetable and field crop seed treatment. The business is also working with Plant Impact to incorporate biostimulants into its seed treatments.

## 'Expand to Grow' strategy

The Life Sciences 'Expand to Grow' strategy is being delivered both organically and through acquisition. This reflects the trends for more valuable patient health treatments and the environmental and social needs for increased crop yields delivered sustainably. Our strategic priorities are to:

- Build the Croda brand in Life Sciences, becoming the leading solution provider to global pharma and crop markets, whilst expanding geographically, particularly in emerging markets;
- Enhance our product portfolio organically and create more value by extending our drug and vaccine delivery and crop adjuvant technologies; and
- Acquire adjacent businesses and technologies in health and crop care with strong growth prospects.

This strategy is driven by innovation and investment. In 2020, NPP sales accounted for 27% of total sales (2019: 27%). The R&D pipeline is robust, supported by greater partnering, particularly in health care. We are deploying more capital to grow, investing £30m over three years in the expansion of our speciality excipient plants in the US and Japan. We reprioritised £10m of investment in the UK and US in 2020 to deliver vaccine scale-up requirements, with a further £40m expected to be invested in 2021 to more than double our GMP capacity in lipid technology for COVID-19 and other pipeline products. Across Life Sciences we are investing in digital capabilities, including the use of artificial intelligence to automate processes and improve customer service in Seed Enhancement.

Global sunflower seeds market value<sup>1</sup>

\$1.3bn



“

We are proud to say that we have already succeeded in developing the first new microplastic-free seed coatings for key crops including sunflower, corn and vegetable seeds. We will also ensure that our full portfolio of seed coatings is microplastic free well before restrictions are in place in Europe.”

**Marta Dobrowolska-Haywood**

Head of Research and Technology, Incotec

**Helping customers reduce the level of microplastics in the environment and get ahead of impending regulations**

Our multinational customers in the agricultural sector are facing a challenge from customers and regulators alike. The call is both a threat and an opportunity; to restrict the use of microplastics in seed coatings by 2027.

The use of coatings on seeds is common practice among growers worldwide as it retains crop protection chemicals on the seed and reduces dust that can lead to unintended exposure of farmers and the environment. Coatings also make seeds easier to sow. However, there is growing global concern about microplastics accumulating in the environment as they are resistant to normal environmental degradation. While Europe may be acting on this area first, our multinational customers are convinced that it is likely that similar restrictions will be adopted elsewhere too.

EU legislation banning intentionally added microplastics in seed coatings is expected to become effective around 2027. For a few years now, the team at our Seed Enhancement

business Incotec has been leading the industry response and working on creating microplastic-free seed coatings to help their customers to adapt ahead of this legislation.

Marta Dobrowolska-Haywood, Head of Research and Technology, Incotec, said “This has been such a rewarding project for our whole team. The initial challenge was daunting as developing microplastic-free treatments is easier said than done. A film coating must not interfere with seed health, shelf life or germination and different crops and plant protection products react differently to any coating.

“We are proud to say that we have already succeeded in developing the first new microplastic-free seed coatings for key crops including sunflower, corn and vegetable seeds. We will also ensure that our full portfolio of seed coatings is microplastic free well before restrictions are in place in Europe, helping our customers get ahead of a major regulatory impact. Helping to see this project through to delivery with such exciting outcomes for our environment is a personal career highlight for me.”



Global maize/corn seed market 2018<sup>2</sup>

\$24.5bn

1. Market Data Forecast Feb 2020.

2. Global maize/corn seed market report MarketWatch Oct 2020.

## Sector review continued

**Performance Technologies:** Our innovative, low-carbon, sustainable and technology-rich additives and materials enable the transition of industrial markets to new sustainability-driven solutions. We work with our customers to help them to deliver superior performance, lower carbon, and greater circularity in materials, mobility, energy, and water industries.

**Sector President:** Anthony Fitzpatrick

# Sales in Performance Technologies were resilient in challenging industrial markets globally but profitability reduced significantly

## Sales

£416.4m

2019: £430.2m

## Adjusted operating profit

£54.0m

2019: £69.4m

## Resilient sales in challenging markets

Sales in Performance Technologies were resilient in challenging industrial markets globally but profitability reduced significantly. After a good start to the year as customers initially secured inventory in the supply chain when COVID-19 took hold, sales progressively weakened during the second quarter alongside temporary closures of automotive and industrial plants, with sales in June almost 20% below prior year. The second half saw a steady recovery, with fourth quarter sales encouragingly 5% higher than prior year.

Sales declined by 3.2% and adjusted operating profit by 21.3%, in constant currency. Overall volume ended the year unchanged on the prior year but with a negative price/mix of 3%, reflecting a more competitive pricing environment in difficult market conditions. There were no acquisitions. In reported currency, sales also declined by 3.2% to £416.4m (2019: £430.2m) and adjusted operating profit reduced by 22.2% to £54.0m (2019: £69.4m). Return on sales was 13.0% (2019: 16.1%), with the reduction due to the higher operating leverage in this sector and lower production in European sites, a change in profit mix due to a sharp decline in sales in the higher margin Energy Technologies business and the sector's share of the ECO plant loss in the US. IFRS operating profit was £50.4m (2019: £63.8m).

There was a marked variation in the performance of the different businesses. Smart Materials was resilient, with sales ending slightly up on prior year, driven by record sales in packaging and hygiene markets from the need for greater protection of products from contamination and the use of polymer additives as a key component in many COVID-19 applications,

including PPE and medical supplies. Within the Home, Fabric and Water business, hygiene and household care applications saw strong demand, reflecting both COVID-19 stimulated demand and increased sales of our ECO sustainable solutions. By contrast, the Energy Technologies business saw sales down over 15% in constant currency, impacted by sharply lower lubricant demand in automotive and reduced flow control additive sales for oil and gas as underlying production levels fell. By quarter four, demand had returned to some industrial and automotive markets, with Energy Technologies sales back to 2019 exit levels and Smart Materials remaining in growth, with a stronger order book by year end.

## 'Refine to Grow' strategy

The strategy for Performance Technologies is to 'Refine to Grow'. The last two years have shown that the sector remains exposed to the industrial cycle. By redeploying capital selectively within the business, we will reduce exposure to older cyclical technologies and focus more on technology-rich markets, to:

- Focus on higher-growth and more valuable markets where we have technical expertise and digital capabilities, thereby increasing the 'knowledge intensity' of the portfolio and reducing its capital intensity and operating leverage;
- Develop the sector's geographic footprint beyond its traditional European and US markets, especially in Asia; and
- Leverage the sector's strong sustainability credentials to meet customers' product needs and help them deliver their 'green' targets.

The Smart Materials business offers sustainable, low-carbon solutions and speciality effects primarily to global polymer and adhesive markets. Global use of polymers continues to grow but, by refining our portfolio, we are helping to move away from a linear plastics economy to a circular one, creating biodegradable and recyclable polymer solutions. In 2021 we will complete a £30m expansion project in the UK, allowing us to offer customers new technologies in high-value polymers for lightweight and durable applications. In Energy Technologies, whilst the internal combustion engine will remain important for many years to come, we are using our distinctive technologies to align to the

sustainability-driven transition of industrial markets, such as renewable energy and mobility. This focus will see us move up the value chain and closer to Original Equipment Manufacturers (OEMs). In the automotive market we are working with global manufacturers to enhance drivetrain lubrication of electric vehicles and in 2020 we launched Hypermer Volt 4000™, a conductive carbon dispersant that improves battery capacity to meet electrification challenges across a range of industries. In Home Care we secured new sales to customers for our ECO sustainable surfactants, and delivered significant growth in Coltide Radiance™, a protein-based fabric conditioner technology that extends the life of fabrics, saving on textile waste.

Across Performance Technologies, we are shifting sales and innovation resources towards higher-growth regions, with encouraging sales progress in Asia and EEMEA in 2020. We established a new state-of-the-art applications laboratory in Shanghai to provide innovation and technical support to customers in China. Our innovation pipeline continues to improve, with NPP as a proportion of sector sales stable at 19% (2019: 19%). We are building on recent acquisitions and investments which support our R&D. In Smart Materials, Ionphase, a market-leading technology in permanent anti-static additives acquired in 2017, has a strong pipeline of opportunities in electronics, automotive and household applications. This follows a record year for revenue, profit and new applications in 2020, including the launch of an additive which controls static to avoid contamination of transparent plastic products. In Energy Technologies, Rewitec, which we acquired in 2019 and whose lubricant additives repair damage and extend the life of wind turbines, has completed several successful trials positioning it well for growth in 2021. In Home, Fabric and Water, as part of our innovation in biotechnology, a smart innovation partnership developed new probiotic ingredients for the home care market, using application-specific bacteria strains to degrade organic matter, delivering superior cleaning and odour neutralisation as well as sustainability benefits.

## Continued portfolio development in Industrial Chemicals

Industrial Chemicals activities continue to support the overall efficiency of Croda's Core Business and operating sites.

2020 saw a significant reduction in global demand for industrial chemicals, coupled with continued progress to reduce low-value co-product and tolling business. As a result, constant currency sales declined by 13.4%. In reported currency, sales were £96.4m (2019: £111.8m) with a small operating loss of £0.3m (2019: £1.1m profit). IFRS operating loss was £0.6m (2019: £0.2m profit).

Sales of sustainably packaged consumer goods grew

7.1x

faster than those of conventionally marketed goods<sup>1</sup>



“

It feels good to see that our team and business can put our Smart science to improve lives™ Purpose into action by adapting so quickly to meet our customers' needs, even in the most challenging circumstances.”

**Ducky Tan**

Sales Manager for Croda China

**Responding to growing customer demand with bio-based polymer additives**

Polymers feature in every aspect of our lives, from food packaging to medical devices and household appliances to Personal Protection Equipment (PPE). This is an industry which is evolving quickly to respond to the emerging sustainability demands of consumers. At Croda we have a long history of creating bio-based polymer additives for this diverse range of polymer applications and this year we have been particularly agile in responding to our customers' needs.

An unprecedented growth in sales in polymer additives has been driven by changes in consumer and customer requirements. Increasing demand for our sustainable, bio-based polymer additives and a growing focus on consumer wellbeing as well as pandemic-driven medical needs have combined to drive this growth. From smart packaging solutions for medicines and vaccines to hygienic PPE materials, we have been able to supply high-quality ingredients to help our customers to improve lives worldwide.

Ducky Tan, Sales Manager for Croda China said “The pace of change at Croda this year has been so exciting. 2020 was tough on everyone but I have been astounded and really proud

of how we have responded at Croda. For the last eight years my work has focused on our polymer additives business and it feels good to see that our team and business can put our Smart science to improve lives™ Purpose into action by adapting so quickly to meet our customers' needs, even in the most challenging circumstances. Together we have adapted the way we work, as have our customers. We are engaging with customers regularly through our digital capabilities including WeChat and productive customer webinars.”

Ducky added “Here in China, the significant growth we have seen this year is partly due to the pandemic but also to broader consumer trends in health, hygiene, wellbeing and of course, sustainability. We have been able to respond to these new needs and shifts in customer demand by offering safe and durable packaging ingredients for transporting hygienic solutions such as hand sanitisers. Our long-term acquisition in 2017 has also proven to be an excellent addition to the portfolio, enabling us to offer permanent anti-static solutions. Our customers are reassured by our local manufacturing capabilities which are supported by my excellent sales colleagues. I am proud to be part of this business offering Smart science to improve lives™.”



1. 2020 Sustainable Share Market Index.

## Sustainability: our 2030 Commitment

We will be the most sustainable supplier of innovative ingredients. We will create, make and sell solutions to tackle some of the biggest challenges the world is facing. By 2030 we will be Climate, Land and People Positive.



Our strategy is restorative – we aim to put back more than we take – and it is balanced across the needs of climate, nature and society.”

### Stuart Arnott

President Sustainability

We believe the launch of this ambitious and public commitment to use our Smart science to improve lives™ in 2020 will both inspire and encourage changes in employee behaviour, uniting them in delivering a more sustainable future. We also have important KPIs outside these three categories, which we have classified as Fundamental to the success of our business. These give us our social licence to operate and include critical areas such as environment, labour and human rights, ethics and sustainable procurement.

We believe that our planet and society will be a better place in 2030 when we achieve our sustainability targets. This positive vision drives us to do more and faster in this, the United Nations' Decade of Action, and we can imagine exactly how we will have improved the world if we achieve our targets across Climate, Land and People Positive.

Our Commitment and 2030 sustainability targets form part of our long-term approach to protect and improve the environment and society by setting demanding SHE improvement targets. This is set out in our Group SHE Policy owned by Steve Foots, CEO, who regularly reviews and updates statements relating to this policy. Progress towards our 2030 targets is monitored by the Sustainability Committee, a formal sub-committee of the Executive Committee.

While we are enthusiastic about, and committed to, our 2030 targets, we recognise there are still nine years to this deadline, and we need to ensure we deliver and monitor progress over this time. During 2020 we developed and approved the intermediate milestones for most of our 2030 targets.

These are recognised as challenging and industry-leading in their own right, and we believe they demonstrate our commitment to the action and investment needed in the short term to ensure we are well on the path to meeting our 2030 targets.



We have achieved so much already in 2020. The following pages summarise this progress and the milestones we have set. **You can find more detailed information, including governance, methodologies, case studies, impacts and the statistics behind our targets, in our 2020 Sustainability Report.**



We end 2020 with even greater optimism and confidence and, above all, collective pride in our business, our Purpose and Commitment to continue to make a positive impact.”

### Steve Foots

Group Chief Executive

## By 2030

- we will be saving 100,000 tonnes CO<sub>2</sub>e scope 1 and 2 emissions per year, equivalent to removing over 21,500 vehicles from the road
- the Croda Foundation will have improved the lives of 1 million people by funding philanthropic projects connected to our smart science
- each day our crop technologies will deliver land area savings equivalent to 1,000 football pitches
- the use of our products will be avoiding 3.8 million tonnes CO<sub>2</sub>e per year, equivalent to removing the emissions associated with one coal-fired power plant for the whole year

For each 2030 Commitment target we have identified the primary SDG to which we are contributing, as well as the specific SDG target references relating to the KPI and where in our value chain they will be impacted: suppliers, our own operations or through use of our products and services. We have then identified the additional SDGs significantly impacted by our work to meet this target. This evaluation aligns with the approach taken by the United Nations Global Compact, with their SDG Ambition initiative for business\*.

Material area	SDG impact		Value chain	SDG targets by scope	
	Primary	Additional		Operations	Products & services
	<b>Climate Positive</b>				
Carbon Cover			13.2	7.2	7.3
Reducing Emissions			13.2	7.2, 9.4, 13.2	
Sustainable Innovation			12.2		
	<b>Land Positive</b>				
Land Use			15.2, 15.5, 12.2		2.3, 2.4
Crop Science Innovation					15.2, 15.3, 13.1
	<b>People Positive</b>				
Health and Wellbeing					3.3, 3.4
Improving More Lives					
Gender Balance				5.5	
	<b>Fundamentals</b>				
Health, Safety & Wellbeing				3.4, 3.9, 8.8	
Process Safety				3.9, 8.8	
Environmental Stewardship				6.3, 6.4, 12.5	
Fair Income			8.5	8.5	
Supplier Partnership			12.6, 12.7		
Knowledge Management				4.3	
Quality Assurance				12.2, 12.5	
Product Stewardship			12.2	3.9	3.9, 14.1
Responsible Business					



**Strengthen the means of implementation and revitalize the global partnership for sustainable development.**

The partnerships that form our ecosystem are vital in supporting us to achieve our 2030 Commitment.

\* <https://unglobalcompact.org/take-action/sdg-ambition>.

## Climate Positive

We will continue to reduce our carbon footprint and increase our use of bio-based raw materials, whilst the benefits in use of our ingredients will enable more carbon to be saved than we emit through our operations and supply chain.

Tackling the climate crisis is our biggest challenge, but, through decarbonisation, innovation and customer collaboration, it also offers us our greatest opportunities.

### Reducing emissions

#### Milestones

- 25% reduction in absolute scope 1 and scope 2 emissions by the end of 2024
- All Croda locations to have a decarbonisation roadmap by the end of 2022

We are committed to reducing emissions in line with the science required to limit global warming to 1.5°C above pre-industrial levels, and are signed up to the UN Global Compact's Business Ambition for 1.5°C. Early in 2021 we will have our Science Based Targets validated — to be on track to achieve our targets, our manufacturing sites need to reduce emissions by 46.2% by 2030 (using 2018 as the baseline).

In 2020, manufacturing sites representing 90% of our total emissions developed decarbonisation roadmaps to 2030. This involved understanding current energy requirements, identifying opportunities to

reduce and re-use energy, as well as exploring the feasibility of switching to renewable sources. These roadmaps have been collated and the global position quantified from both financial and carbon-reduction impact perspectives. This outstanding work gives us confidence that our Climate Positive commitment is achievable.

2020 also saw us confirm and start to implement an internal carbon price of £50/tonne CO<sub>2</sub>e for all capital expenditure applications. We believe this will continue to drive the right investment decisions for us to meet the challenging targets we have set.

The majority of our emissions lie within our supply chain, embedded in our raw materials. To reduce these emissions, we will also set a scope 3 Science Based Target during 2021. Collaboration, engagement and encouraging suppliers to set their own emissions reduction targets will be key to us making progress. As many of our key customers have also committed to Science Based Targets, our Climate Positive commitments will support them in achieving their own scope 3 reductions, with the cradle-to-gate carbon footprint of our products significantly reducing over this critical decade for climate action.

“

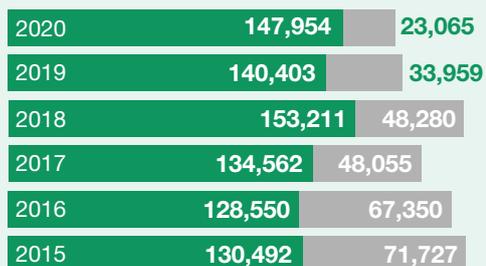
It is an exciting and valuable experience to be involved in creating the roadmap, where we can improve current processes and explore novel technologies which may very soon become the norm for us.”

**Shu Ying Tan**

Graduate Trainee, Croda Singapore



### GHG emissions (TeCO<sub>2</sub>e)<sup>1</sup>



● Scope 1 ● Scope 2

Since 2015, our baseline year, our total scope 1 and 2 GHG emissions have reduced by 15.4%. Within this, our scope 1 emissions have increased by 13.3%, whilst we have seen a greater than 67% reduction in scope 2 emissions. Since 2017 we have been reporting market-based scope 2 emissions, which better reflect our purchasing of renewable electricity at greater levels than the national averages in the countries where we operate.

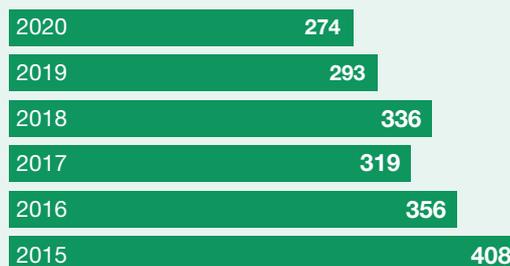
Scope 1 and 2 GHG emissions from our UK operations were 35,277 TeCO<sub>2</sub>e in 2020 (2019: 34,932 TeCO<sub>2</sub>e) representing approximately 20% of our global GHG emissions.

#### Energy consumption and efficiency improvements

In 2020 we consumed 1,113,064,125 kWh (2019: 1,026,316,451 kWh) of energy across our global operations. This included 223,177,222 kWh (2019: 223,465,355 kWh) consumed by UK operations. As part of our strategy to improve the efficiency of energy consumption, 27 projects were implemented globally, realising 31,642,487 kWh of annualised efficiency improvements, equivalent to 18,500 TeCO<sub>2</sub>e avoided emissions.

1. Scope 1 emissions are calculated using Defra Government emission conversion factors for greenhouse gas company reporting. Scope 2 emissions are market-based (location-based by proxy for 2015 and 2016).

### GHG emissions intensity (TeCO<sub>2</sub>e/£m)



● Scope 1 and 2 emissions intensity

Our chosen measure of GHG emission intensity divides our GHG emissions (market-based scope 2 emissions) by value added<sup>2</sup>, a measure of our business activity. Our 2015 baseline year, along with 2016, were calculated using location-based scope 2 emissions as a proxy. Since 2015, our GHG emissions intensity has improved by 33%, illustrating how we are decoupling growth from our environmental impact.

Our scope 1, 2 and 3 GHG emissions are verified by Avieco. Their formal independent verification statement is available at: [www.croda.com/carbonverification](http://www.croda.com/carbonverification).

2. Value added is defined as operating profit before depreciation and employee costs at 2015 constant currency.

## Carbon cover

### Milestones

- 2 million tonnes of CO<sub>2</sub>e emission savings delivered through use of our products by the end of 2024
- 100% of our product portfolio evaluated for downstream scope 3 impact by the end of 2024

Our ingredients offer many sustainability benefits in use, including helping our customers and their consumers reduce or avoid greenhouse gas emissions. Our aim is that, by 2030, the use of our products will avoid four times the carbon emissions associated with our business, a Carbon Cover of 4:1. By achieving this target, in 2030 the use of our products will be avoiding 3.8 million tonnes CO<sub>2</sub>e per year, equivalent to removing the emissions associated with one coal-fired power plant for the whole year.

In 2020 we identified several case studies for existing ingredients, quantifying the avoided emissions associated with their use. Our methodology for quantifying and reporting these avoided emissions is externally verified by Avieco, a market-leading sustainability consultancy.

The total avoided emissions in 2020 associated with sales of ingredients attached to these case studies as well as those attached to previously verified case studies was 839,220 TeCo<sub>2</sub>e. This leads to a carbon

cover ratio of 0.8:1, similar to 2019. Avoided emissions associated with our sales of our case studies from 2019 fell, primarily due to a slowdown in the automotive market, where our polymeric friction modifiers in engine oils provide significant emissions avoidance. Our Carbon Cover working group is building our case studies to develop a methodology for us to identify avoided emissions for larger product/application areas.

## Sustainable innovation

### Milestones

- 71% (rolling three-year average) of our organic raw materials to be bio-based by the end of 2024

In 2020, our use of bio-based organic raw materials increased to 67% (2019: 63%) as we commissioned our bio-surfactants plant in North America. Our 2030 target is for this to reach 75% which is three times the target of the European chemical industry. Bio-based raw materials sequester carbon from the atmosphere as they grow, so using them to displace fossil-based materials has a positive impact on the climate.

Over the past year significant progress has been made aligning the work of our global Research and Development (R&D) teams with the SDGs. Sustainability is now considered first during new product development and our R&D teams are challenged to assess the impact of their projects against our

Commitment to become Climate, Land, and People Positive. This new approach was integrated throughout our global R&D function through 2020. In order to progress further towards this target, our global R&D team have begun to build a database of bio-based raw materials, which will broaden the range that can be selected during new product development.



To improve the impact of our products, sustainability needs to be built-in during the design and development of new products, so we need to ensure our scientists have the skills and knowledge to incorporate sustainability into the innovation process.”

### Sarah Davidson

recently promoted to Global R&D Sustainability Co-ordinator

Find more information on our progress against our Climate Positive strategy, including our detailed 2030 targets in our Sustainability Report 2020, p12-17 and p40-41.

## Task Force on Climate-related Financial Disclosures (TCFD)

<b>Governance</b>	Our Board is responsible for dealing with risks and opportunities associated with climate change. All management positions share the responsibility of assessing and managing relevant climate-related risks and opportunities.	➔ See p57 & p63
<b>Strategy</b>	We have identified a range of short, medium and long-term climate-related risks and opportunities. Climate-related risks and opportunities are taken into account within our business, strategy and financial planning. We look at a 1.5°C scenario alongside our business strategy and are committed to bold emissions reduction targets.	➔ See p22
<b>Risk Management</b>	Climate-related risks are integrated into our risk assessment process and are assessed using our risk framework. Climate-related risks are reviewed by the Board and monitored regularly through our SHEQ committee. We have thorough processes in place for assessing and managing climate-related risks, which are integrated into our overall risk management framework.	➔ See p45-48
<b>Metrics and Targets</b>	We have several climate-related targets in line with a 1.5°C scenario, which have a range of metrics to ensure we are meeting our targets. We monitor our scope 1, scope 2 and scope 3 GHG emissions, and the related risks. We have a range of stretching KPIs to help us manage climate-related risks and opportunities and performance against targets.	➔ See p30-35, p39 & p76

## Land Positive

Our products will enable more land to be saved than is used to grow our bio-based raw materials. Our innovation will help customers to mitigate the impact of climate change and land degradation, increasing the availability of land suitable for growing crops.

At Croda, our commitment to be Land Positive by 2030 means that we save more land than we use. We will do this by increasing agricultural land-use efficiency, protecting biodiversity, ensuring food security by sourcing sustainably, and inspiring innovation through our crop businesses.

### Land use

#### Milestones

- By the end of 2024, the land area saved through use of our technologies will be at least 80,000 ha per year above a 2019 baseline

During 2020 we defined our protocol for measuring the land area we save. Our range of biostimulants, adjuvants and seed coatings save more land than is used to grow all of our bio-based raw materials. Our ambition for this decade is to be truly restorative such that the land we save outpaces the land we use as our business grows, at a rate of 2 hectares saved for every additional 1 hectare used.

As our business grows and as we move more towards bio-based raw materials, we expect that the amount of land used to grow our raw materials will increase. We have therefore set a roadmap towards an absolute Land Positive target of 300,000 hectares of land saved per year by 2030.

We, like most businesses in the world, have a land footprint; requiring land to operate our factories and source our raw materials. However, we believe we also need to understand how our activities may impact biodiversity, deforestation, food security, soil health and water consumption. We call this more holistic view of our land usage our land budget and we need to understand this for our entire business, our major manufacturing sites and individual finished ingredients. We believe this level of scrutiny will help drive positive change in our raw material and supplier selection and, importantly, will shape our customers' ingredient and supplier selection, proactively contributing to their sustainability goals.

### Crop innovation

#### Milestones

- By the end of 2024, we will have brought 10 qualifying technological breakthroughs to market

We will play a key role in innovation projects and partnerships to mitigate the impact of a changing climate on land degradation, this commitment aligns us further with many of our major Crop Care customers. Identifying where our technologies and collaborative partnerships can make the most difference,

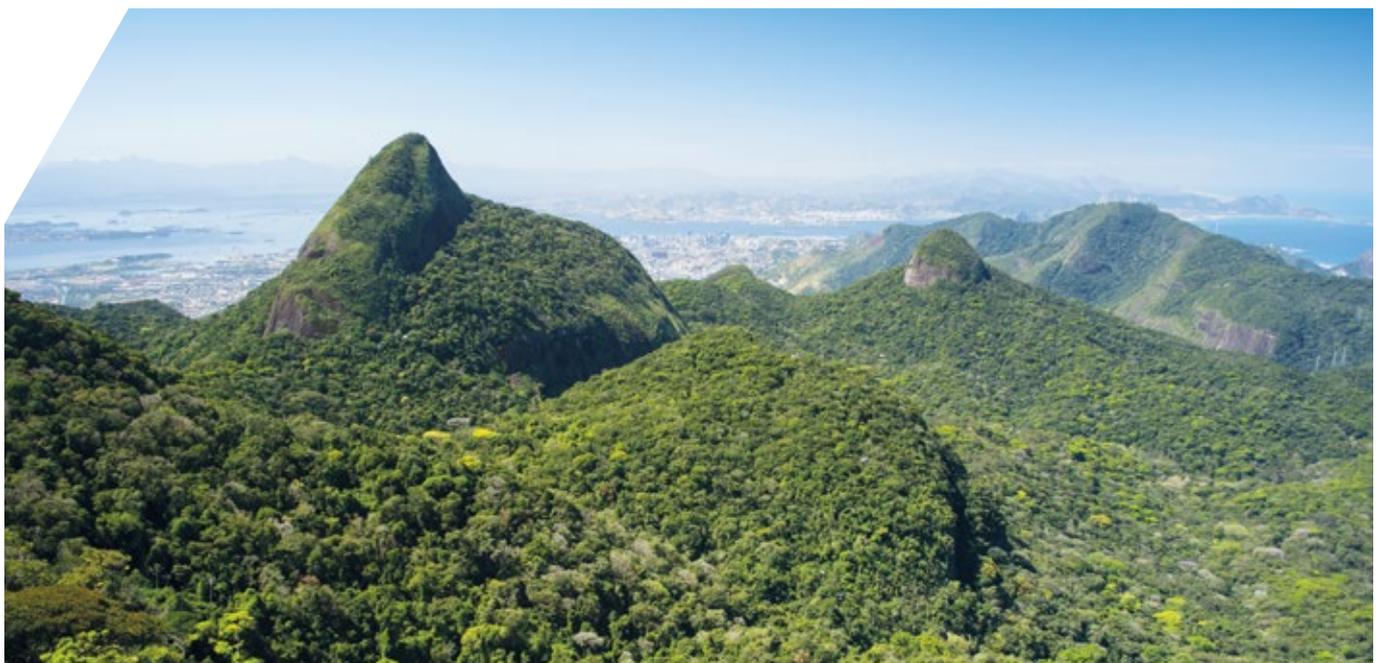
we will continue to focus on crops such as soybean, where increasing demand may be contributing to deforestation.

## Improving yield, protecting biodiversity

Biostimulants increase crop yields as well as contributing to a range of other environmental benefits. One example is Veritas™ developed by our team at Plant Impact. Veritas improves nutrient mobility in soybean plants leading to increased crop resilience and more robust plant growth, which increase crop yield.

As a result of this yield improvement, a greater mass of crop can be produced per hectare of land. The land area required to grow one tonne of soybeans is therefore lower, resulting in lower energy and water inputs and lower carbon emissions.

[Find more information on our progress against our Land Positive strategy, including our detailed 2030 targets in our Sustainability Report 2020, p18-21 and p40-41.](#)



We will play a key role in projects and partnerships to mitigate land degradation, helping prevent deforestation.

## People Positive

We will apply our innovation to increase our positive impact on society. We are improving the lives of our own employees and people around the world by developing ingredients to improve health and wellbeing as well as encouraging and promoting diversity.

### Health and wellbeing

#### Milestones

- By the end of 2024 we will protect one million lives from skin cancer through the use of novel sun protection technologies

Skin cancer is the world's most common cancer. During 2020 our Beauty Effects business, responsible for sun protection in Croda, developed a roadmap for achieving our 2030 target to help 60 million people annually protect themselves from skin cancer. Throughout 2020 many activities were progressed to align to this roadmap including creating actives and formulations that are suitable for all skin tones and formulation textures that are acceptable globally. To progress gaps in our current product offering we have already entered partnerships with Entekno and Anomera.

#### Milestones

- By the end of 2024 our technology will be part of at least 10 clinical phase III trials across at least 25% of the WHO-listed pipeline vaccines

Much of the world's vaccine expertise was focused on COVID-19 during 2020. Our novel drug delivery excipients, which leverage the expertise of the Avanti business acquired in August, are a critical component of the mRNA vaccine produced by Pfizer-BioNTech, the first COVID-19 vaccine to get regulatory approval. 2020 has seen significant and rapid investments at manufacturing sites, so we can meet the scale and delivery requirements for these important components.

Alongside this work, we have continued to increase engagement with teams researching many of the WHO-listed diseases including malaria, HIV and Alzheimer's disease. Our adjuvant technology is included in several vaccine candidates that are in clinical trials this year.

[Find more information on our progress against our People Positive strategy, including our detailed 2030 targets in our Sustainability Report 2020, p22-29 and p40-41](#)



Our adjuvant technology is included in several vaccine candidates that are in clinical trials this year.

### Gender balance

#### Milestones

- 80% of recruitment shortlists will be gender balanced by the end of 2023

Our target to achieve gender balance across our leadership roles by 2030 is at the heart of our values at Croda. Since the end of 2019 we have increased the number of women across our leadership roles by 19% supporting our target of doubling the number of women leaders by 2025. Through balanced shortlists we have already seen progress in recruiting women to work in direct manufacturing operations.

In 2020 we developed a D&I intranet site giving employees access to D&I policies, training and awareness programmes, and updates on Company activity. In September, we published Flexible Working guidance aimed at making our workplaces more inclusive and to help everyone give their best.

### Improving one million more lives by 2030

We are establishing and funding a Croda Foundation, to act as an independent philanthropic enterprise supporting projects in relevant communities. The foundation will be a charitable trust, administered by an independent Board of Trustees, and solely funded by us. In 2020, the Croda Foundation was formally incorporated as a legal entity with approved articles of association, and we identified the goal of the foundation; to improve at least one million lives by 2030 through the support of meaningful projects.

### Diversity and inclusion

We embrace the differences of a multi-ethnic, multi-geographic and multi-skillset company. In 2019, we achieved our objective of women making up at least one third of the Board. However, we need to replicate this across the business, which is part of our ongoing Diversity and Inclusion programme.

#### Across the Group\*

Female	2,051
Male	3,633

Split: 36.1% female, 63.9% male

#### Board of Directors

Female	3
Male	5

Split: 37.5% female, 62.5% male

#### Executive Committee Members

Female	2
Male	8

Split: 20.0% female, 80.0% male

#### Regional and Business Board Members and Senior Functional Heads

Female	12
Male	35

Split: 25.5% female, 74.5% male

\* including Avanti and Iberchem acquisitions

## Fundamentals

Our social licence to operate is built on trust and is the foundation of everything we do. We consider all stakeholders in our ecosystem and strive to adopt best practices in environment, labour and human rights, ethics and sustainable procurement.

### Health, safety & wellbeing

#### Milestones

- Achieve OSHA Total Recordable Injury Rate of 0.3 by the end of 2024

It is a core principle at Croda that all employees and contractors should expect to return home at the end of their working day without having been harmed in the workplace. Our underlying OSHA total recordable injury rate (TRIR) improved over the last five years from 0.8 per 200,000 hours worked to below 0.6, and we have targeted to achieve a rate that puts us in the top decile of the chemical industry by 2030, a significant step towards our ultimate aim of zero harm at work.

Careful examination of the causes of our injuries shows that most are behavioural in nature. We therefore have three key improvement areas: focus on leadership, Company-wide adoption of our SHE Behaviour Standard, and assisting newly acquired companies to achieve Group requirements quickly.

Protecting and enhancing the mental and physical health of our employees is important to ensure everyone can give their best and so that we can create and maintain an inclusive workplace. It underpins our values of 'Together' and 'Innovative', the latter being about creating a fun, lively and stimulating environment in which to work.

Our metric here is to see an improvement in employee satisfaction related to wellbeing questions, through an increase in the percentage of positive responses. We implemented a huge number of initiatives during 2020 in response to the pandemic and are pleased to have seen an increase in positive responses to our wellbeing questions of over five percentage points compared with the last survey in 2017.

### Process safety

#### Milestones

- Conduct an independent peer review of our Process Risk Reviews (PRR) for high-hazard processes by the end of 2023
- Develop reporting capability against SASB process safety indicators by the end of 2021

Robust process safety management is hugely important to us and is a vital component of our social licence to operate.

An important component of our process safety assurance program is the requirement for sites to conduct Process Risk Reviews (PRRs) of all hazardous process at regular

intervals. The first five-year cycle of this was completed at the end of 2018 and we are now two years into the next cycle. An added level of assurance is provided by conducting independent reviews of our high hazard processes and we are on track to complete these by the end of 2023. Next year we will develop the capability to report our process safety performance in accordance with the metrics described in the Sustainability Accounting Standards Board (SASB) accounting standard.

In September 2020, the ECO plant at Atlas Point in Delaware, USA, received notices from a local regulator following higher than anticipated emissions to air during initial testing of some plant equipment. We immediately suspended operations at the ECO plant while corrective work was undertaken. Further testing took place in January 2021 to determine if the issues were resolved, and we expect to be fully operational in the first half of 2021.

### Environmental stewardship

#### Milestones

- Develop and implement a methodology for water impact assessment by the end of 2021
- Reduce our water use impact by 25% from 2018 baseline by the end of 2024
- Eliminate process waste to landfill across our operations by the end of 2024

It is estimated that, by 2025, two-thirds of the world's population may face water shortages, and ecosystems around the world will be stressed even more than they currently are. Our targets are to halve our water impact by 2030 and to reduce it by 25% by the end of 2024. This requires us to move beyond simply measuring and reducing total water volume, to conduct in-depth studies of the impact our activities have, thus prioritising the action we must take to safeguard this most precious and fundamental resource.

Over the years we have significantly reduced our process waste going to landfill and have targeted to complete that journey by the end of 2024.

### Fair income

#### Milestones

- All employees, temporary and permanent, will be paid a living wage by the end of 2022
- All regularly employed contractors will be paid a living wage by the end of 2024

An overarching theme of the UN's Sustainable Development Goals is improving the lives of the poorest and most vulnerable, leaving no one behind. We firmly believe that all employees and employed contractors at Croda should receive a wage that enables them to meet their basic needs and those of their families as a minimum. In 2018 we gained accreditation in the UK as a Living Wage Employer and have since committed to pay a voluntary living wage that goes beyond the legal minimums at every location globally. To achieve this, we have partnered with the Fair Wage Network (FWN) who provide an independent and economically rigorous methodology to assess wage practices and levels.

### Supplier partnership and sustainable sourcing

#### Milestones

- By the end of 2024, all key suppliers will be required to achieve an average score from EcoVadis (or equivalent) or will have an action plan with timelines to close gaps
- By the end of 2024, key suppliers representing at least 50% of our raw material volumes will be required to sign up publicly to SBTi or equivalent carbon reduction targets
- By the end of 2024, suppliers of crop-based raw materials will be required to provide supply chain transparency in a fully traceable and certified sustainable manner

Sourcing our bio-based raw materials in a truly sustainable way is a crucial part of what we do and an increasingly important requirement of our customers and consumers alike. Using natural resources brings with it the responsibility to ensure there are no associated negative social or environmental impacts, as well as the opportunity to advocate for, and contribute to, positive change. This can only be possible through intimate knowledge of our supply chains, collaboration with all parties in them, and with complete transparency and traceability throughout.

We have partnered with EcoVadis as our framework for sustainability monitoring, using their universal scorecard, benchmarks, and performance improvement tools. We will continue to work with our suppliers to gain higher levels of participation in these assessments and to encourage them to address any gaps, significantly increasing our influence in the supply chain.

We reviewed, updated, and issued our Supplier Code of Conduct during 2020, which clearly states our sustainability objectives and fundamental requirements of doing business. In addition to our own supplier engagements, we seek third-party certifications to validate the sustainability credentials of our suppliers and their raw materials.

## Knowledge management

### Milestones

- 100% of employees will receive a minimum of one week's training per year by the end of 2025

Our target is to ensure that all employees have a minimum of one week of training per year. This training can be 'on the job', classroom-based in person or virtually, self-study, an online programme, professional training or participating in mentoring or coaching programmes.

To support this ambition, and in response to the COVID-19 crisis, we significantly increased the resources available to our employees, with over 2,000 online training courses added to our learning management system – MyCroda.

Having launched our 2030 Commitment in last year's report, we have spent a significant amount of time engaging with our workforce at all levels to help them understand the Company goals and the contribution that every employee can make towards achieving them. In particular, we have focused on training managers around the Group with the aim of enhancing their knowledge on technical topics such as the United Nations Sustainable Development Goals, science-based targets and scope 1, 2 and 3 emissions, thus increasing their confidence to lead our efforts and make them locally relevant.

## Quality Assurance

### Milestones

- Achieve a 99% Right First Time (RFT) rate by the end of 2024

Responsible consumption of resources requires us to do things right first time, every time. This is not only good for service levels and customer experience, but also eliminates all forms of waste and is thus aligned with the SDGs. Our target is for our right-first time measure to reach 99.5% by 2030 and we expect to be well on that journey by the middle of the decade with an interim target of 99.0%. Key to success is the systematic evaluation of all failures, a deep understanding of the root causes and then the implementation of enduring corrective actions. This year we appointed a Business Process Director to co-ordinate our efforts globally through a network of local champions and have seen significant progress towards our goals as a result.

## Product stewardship

### Milestones

- Finalise our Life Cycle Assessment methodology with external input and verification by the end of 2021
- Complete 40 Life Cycle Assessments by the end of 2024

Product stewardship to us means going beyond the minimum requirements for compliance. It means building upon the knowledge we gain from regulation and enhancing it with a full Life Cycle Assessment

(LCA) of our ingredients to fully understand their impact beyond our factory gate. It requires a deep understanding of our products from cradle-to-grave and necessitates complete transparency up and down the supply chain. Conducting LCAs helps markets in which we operate move towards more environmentally friendly products through elimination, substitution or reuse and identifies opportunities to further reduce the risk to employees and consumers of being exposed to chemical hazards. We aim to have completed full LCAs of our top 100 ingredients by 2030 and to have done at least 40 by the end of 2024.

## Responsible business

### Milestones

- Achieve an EcoVadis score of at least 85 by the end of 2023

Responsible business to us means leadership in sustainability and corporate social responsibility. We use the EcoVadis sustainability rating as a measure of our own performance and as a tool for continual improvement.

This year we are very proud to have achieved the new Platinum level award with EcoVadis which places us in the top 1% in our sector and is a true recognition of sustainability being at the very heart of our Company values and practices.

**Find more information on our progress against our Fundamentals strategy, including our detailed 2030 targets in our Sustainability Report 2020, p30-39 and p40-41.**

## Non-financial information statement

The table below sets out where more information can be found in our Strategic Report that relates to non-financial matters, as required under the Non-Financial Reporting Directive.

Reporting requirement	Some of our relevant policies	Where to read more about our impact	Page	Key risks (p46 - 48)	
Environmental matters	Group SHE policy <sup>1</sup>	Process Safety	36	Major safety or environmental incident	
		Environmental stewardship	36	Delivering sustainable solutions - Climate Positive	
		Climate Positive	32	Climate Positive	
Employee matters	Group Code of Ethics <sup>2</sup> Group Code of Conduct <sup>2</sup> Group SHE policy <sup>1</sup> Group Policy on Training and Development <sup>2</sup>	Our people	16	Our people	
		People Positive	35	Major safety or environmental incident	
		Respect for human rights	Group Policy on Discrimination <sup>2</sup> Group Code of Conduct <sup>2</sup>	35 87	Our people
		Social matters	Group Policy for Managing Diversity <sup>2</sup>	35	Ethics and compliance Our people
Anti-bribery and corruption issues	Ethics Procedures Manual <sup>1</sup> Croda Modern Slavery Statement <sup>2</sup> Competition Law Policy <sup>1</sup> Croda Fraud Policy <sup>1</sup> Whistleblowing Policy <sup>2</sup>	Risk management	44	Ethics and compliance	
		Responsible business	37	Ethics and compliance	
		Business model	Business model	12	All key risks on pages 46 to 48 link to our business model
		Non-financial KPIs (Environmental, social and ethical relating to our operations and the ingredients we make)	Our Purpose <sup>2</sup> Our Commitment <sup>2</sup>	Key Performance Indicators Sustainability	38 30

1. Available to employees via the company intranet (Connect), not published externally.  
2. Available to employees via the company intranet (Connect) and published on www.croda.com.

## Key Performance Indicators

We identify targets for, and measure progress towards delivery of our strategic objectives through our Key Performance Indicators. Our sustainability KPIs have changed this year to reflect our 2030 Commitment to be Climate, Land and People Positive.

## How we performed

### KPI

#### Return on sales (ROS)%



**KPI definition:** Adjusted operating profit as a percentage of sales.

### Comment

Group ROS declined to 23.0% in 2020 reflecting the effect of lower sales and adverse price/mix. Life Sciences had another standout year, with a record ROS, now broadly in line with the historical Personal Care margin target. Personal Care ROS was significantly impacted by COVID-19 lockdowns, with the higher-margin Beauty Actives and Effects businesses impacted by disruption in prestige consumer shopping channels and 'going out'. Performance Technologies saw lower ROS due to reduced volume in higher-margin businesses and higher operational gearing in this sector.

#### Core Business sales growth %



**KPI definition:** Total sales growth in the Core Business measured at constant currency.

Despite COVID-19, Core Business sales grew low single-digit in 2020, benefiting from acquisitions. Sales growth in Life Sciences reflected a strong performance in Health Care and Seed Enhancement, supported by the acquisition of Avanti. COVID-19 adversely impacted Personal Care and Performance Technologies sales but both sectors saw steady sales improvement in the second half of the year.

#### New and Protected Products (NPP) sales %



**KPI definition:** Proportion of sales from NPP (in constant currency). NPP products are where sales are protected by virtue of being either newly launched, protected by intellectual property or by unique quality characteristics.

NPP and non-NPP sales both declined in 2020 (excluding acquisitions). This reflected the impact of COVID-19 lockdowns across many markets, with associated changes in mix adversely impacting NPP sales. We continue to strategically invest resources to enable us to focus technically and commercially on increasing the proportion of Group sales from NPP.

#### Total recordable injury rate (TRIR)



**KPI definition:** The number of incidents per 200,000 hours worked where a person has sustained an injury, including all lost time, restricted work and medical treatment cases.

On a like-for-like basis our 2020 target was achieved a year early and was maintained this year at TRIR 0.54. This shows a positive trend resulting from our focused attention. A number of acquisitions made during the last five years brought with them TRIRs above the Group average. This, and a small number of subjective work-related COVID-19 cases, resets our headline TRIR to 0.86 as we enter 2021. We aim to reduce this to 0.3 by the end of 2024.

## Strategic objectives and remuneration



**Growth:** consistent top and bottom line growth



**Innovation:** increase the proportion of NPP that we sell



**Sustainability:** align our business with our Purpose and accelerate our customers' transition to sustainable ingredients



**Remuneration:** KPIs that are reflected in our Remuneration Policy (see p80)

For more information on our strategy see p22.

### Target

Personal Care (PC) maintain 2018 level.

#### Behind target

Life Sciences (LS) grow to equal Personal Care in the medium term.

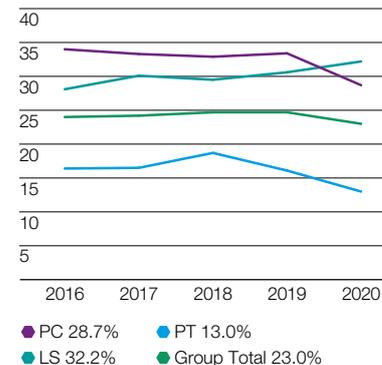
#### On target

Performance Technologies (PT) grow to 20% in the medium term.

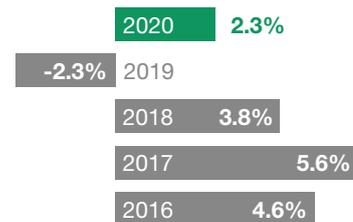
#### Behind target

### Our performance

#### Return on sales %



#### Core Business sales growth %



#### NPP sales %



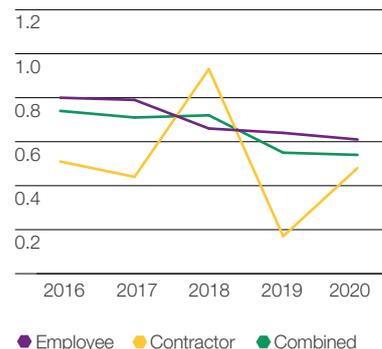
NPP sales to be 30% of Group sales in the medium term.

#### Behind target

0.3 by the end of 2024.

#### On target

#### Total Recordable Injury Rate (TRIR)



**KPI**

**Absolute scope 1 & 2 emissions and scope 1 & 2 emissions intensity**

**KPI definition:** Our operational emissions (associated with burning fuels onsite and purchased electricity), both in absolute terms as well as emissions intensity. Our chosen measure of GHG emission intensity divides our GHG emissions (market-based scope 2 emissions) by value added: a measure of our business activity.

**Comment**

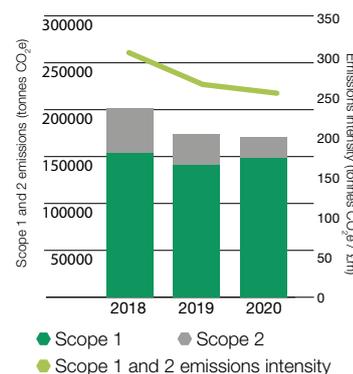
Since 2018, our emissions have reduced in line with the absolute emissions reduction pathway required by the Science Based Targets initiative for limiting global warming to no more than 1.5°C above pre-industrial levels. These reductions are from our scope 2 emissions, as we have switched to renewable electricity where possible. Our emissions intensity has fallen by 16% since 2018, demonstrating how we continue to decouple economic growth from environmental impact.

**Target**

By 2030, we will have achieved our Science Based Target, reducing emissions in line with limiting global warming to no more than 1.5°C above pre-industrial levels.

**On target**

**Our performance**



GHG emission intensity divides our GHG emissions (market-based scope 2 emissions) by value added, defined as operating profit before depreciation and employee costs in reported currency.

**Land area saved (hectares)**

**KPI definition:** Land area saved since we launched Our Commitment (2020). This is a measure of growth compared to our 2019 baseline year, eg new product launches or sales to new customers.

In 2020 the use of our agricultural ingredients and new technologies saved an additional 16,455 hectares of land compared to our 2019 baseline. More than our target of 8,000 hectares for 2020, this puts us on track to achieve our 2030 target that the land we save outpaces the land we use as our business grows by at least a factor of two.

Throughout this decade, the land saved through the application of our crop protection and seed technologies will exceed any increase in land used to grow our raw materials by at least a factor of two, and by 2030 we will save 200,000 hectares per year more than in 2019.

**On target**

**16,455 hectares**  
of land saved over the baseline in 2020

**Number of lives improved**

**KPI definition:** Number of lives improved through the use of Croda components as a critical part of Pfizer-BioNTech's COVID-19 vaccine in 2020.

We delivered critical components to Pfizer-BioNTech to allow them to meet their target of supplying 50 million doses of COVID-19 vaccine, to fully vaccinate 25 million people. Protecting the health and wellbeing of the most vulnerable in our society should help us all to begin to operate more freely in 2021, reduce the spread of COVID-19, protect more livelihoods and improve mental health.

We will use our smart science to promote healthy lives and wellbeing through the development and application of our ingredients and technologies.

**On target**

**25 million people**  
will be fully vaccinated against COVID-19 with doses delivered in 2020 containing critical Croda components

**Creating shareholder value**

**Adjusted basic earnings per share (EPS)**

**KPI definition:** Adjusted profit after tax divided by the average number of issued shares.

The challenging conditions in 2020 saw adjusted basic EPS of 175.5p, a decrease of 5.1% on last year. Over the last three years, EPS has declined by an average of just over 0.5% p.a.

5-11% EPS growth per annum over the last three years

**Behind target**

**Adjusted basic earnings per share (EPS)**



**Return on invested capital (ROIC) %**

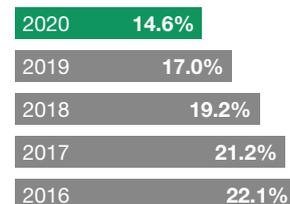
**KPI definition:** Adjusted operating profit after tax divided by the average adjusted invested capital for the year for the Group. Adjusted invested capital represents net assets adjusted for net debt, earlier goodwill written off to reserves and accumulated amortisation of acquired intangible assets.

ROIC fell to 14.6% in 2020, at the lower end of the target range. This reflects increased acquisition spend and continued investment in future organic growth through targeted capital expenditure. We expect ROIC to improve (subject to the impact of any further acquisitions) as the profit benefits of recent investments deliver.

Achieving ROIC of two to three times cost of capital.

**On target**

**Return on invested capital %**



## Finance review

The resilience and cash-generative nature of our business model was demonstrated in 2020, despite the impact of the COVID-19 pandemic on market demand.



**Jez Maiden**

Group Finance Director



“With only a limited reduction in profit, Croda continued to invest in future growth, through both organic expansion and acquisition, whilst continuing to increase its dividend.”

### Sales

£1,390.3m

2019: £1,377.7m

### Adjusted profit before tax

£300.6m

2019: £322.1m

### Free cash flow

£176.9m

2019: £201.7m

## Croda investment case

### Highly differentiated approach

Flexible, local manufacturing providing resilience, and direct selling to customers.

### Dynamic innovation engine

Open approach to innovation with 500 partners working on over 100 projects increasingly focused on sustainability.

### Focused on faster-growing niches

Strong position in high-growth niches well aligned with growing consumer demand for sustainability.

### High-quality business with superior financial performance

Highly cash-generative operations with world-class profit margins.

### Strong balance sheet

Clear capital allocation policy prioritising disciplined investment in growth.

### Attractive shareholder returns

Track record of creating shareholder value through high returns on capital and 29 years of consecutive dividend progression.

## Strong cash generation and funding capacity supporting continued investment

The resilience and cash-generative nature of our business model was demonstrated in 2020, despite the impact of the COVID-19 pandemic on market demand. With only a limited reduction in profit, Croda continued to invest in future growth, through both organic expansion and acquisition, whilst continuing to increase its dividend.

### Currency

The average sterling exchange rates across the Group's key currencies in 2020 were broadly unchanged at US\$1.285 (2019: US\$1.278) and €1.125 (2019: €1.141), resulting in limited impact of currency translation on reported sales and operating profit.

### Sales

Sales in reported currency increased by 0.9% to £1,390.3m (2019: £1,377.7m). Constant currency sales increased by 1.1%. Underlying sales declined by 2.7%, more than offset by acquisition sales adding £51.8m.

Sales	£m	%
2019 reported	1,377.7	
Underlying growth/(decline)	(37.3)	(2.7)
Impact of acquisitions	51.8	3.8
2020 constant currency	1,392.2	1.1
Impact of currency translation	(1.9)	(0.2)
<b>2020 reported</b>	<b>1,390.3</b>	<b>0.9</b>

In the Core Business, constant currency sales increased by 2.3%. Sales volume increased by 1.2%, driven by growth in Life Sciences. Price/mix was 3.0% lower, reflecting adverse mix in Personal Care and Performance Technologies in challenging market conditions. Acquisitions added 4.1% to Core Business sales growth.

Sales	2020 reported currency £m	Year on year change	Constant currency change	2019 £m
Personal Care	475.9	(1.9)%	(1.8)%	485.2
Life Sciences	401.6	14.6%	14.8%	350.5
Performance Technologies	416.4	(3.2)%	(3.2)%	430.2
Core Business	1,293.9	2.2%	2.3%	1,265.9
Industrial Chemicals	96.4	(13.8)%	(13.4)%	111.8
<b>Group</b>	<b>1,390.3</b>	<b>0.9%</b>	<b>1.1%</b>	<b>1,377.7</b>

Constant currency sales in Life Sciences grew by nearly 15%, with a positive impact on demand in Health Care from COVID-19, supported by the Avanti acquisition in August. Personal Care sales were 2% lower, due to the impact of COVID-19 lockdowns on consumer demand, and Performance Technologies fell by 3%, particularly reflecting weakness in global automotive demand. Overall, the second half year was notably stronger than the first, as markets recovered and with the benefit of acquisitions. In particular, the fourth quarter saw underlying Personal Care sales restored to the prior year level, a return to sales growth in Performance Technologies and continued strong demand in Life Sciences.

2020 sales at constant currency	First Half %	Second Half %	Full Year %
Personal Care	(9.5)	6.2	(1.8)
Life Sciences	(1.7)	33.2	14.8
Performance Technologies	(5.6)	(0.6)	(3.2)
Core Business	(6.0)	11.3	2.3
Industrial Chemicals	(17.8)	(8.9)	(13.4)
<b>Group</b>	<b>(6.9)</b>	<b>9.6</b>	<b>1.1</b>

### Adjusted profit

Adjusted operating profit decreased by 5.9% in reported currency to £319.6m (2019: £339.7m). Operating costs benefited from cost savings delivered at the end of 2019, lower discretionary spend in 2020 (for example, on travel and exhibitions) and no bonus charge. These savings were offset by the impact of acquisitions and a higher share-based payments charge, reflecting the strong share price performance and high levels of employee share plan participation. The loss from the ECO biosurfactants plant in North America increased by £7m to £11m, due to higher feedstock prices, caused by COVID-19 demand for sanitiser-grade bioethanol, and the plant only operating for part of the period whilst carrying a full cost base.

The classification of cost of sales and administrative expenses within the Income Statement has been revised to align more closely with the Group's inventory valuation policy and market practice. As a result, 2019 comparative operating costs have been increased by £119.0m, with a corresponding reduction in cost of sales.

Income statement	2020 £m	2019 restated £m
Revenue	<b>1,390.3</b>	1,377.7
Cost of sales	<b>(758.2)</b>	(746.5)
Gross profit	<b>632.1</b>	631.2
Adjusted operating costs	<b>(312.5)</b>	(291.5)
Adjusted operating profit	<b>319.6</b>	339.7
Net interest charge	<b>(19.0)</b>	(17.6)
Adjusted profit before tax	<b>300.6</b>	322.1

On a constant currency basis, adjusted operating profit fell by 4.0%. This reflected the impact of the decline in underlying sales, together with an adverse impact from the lower price/mix, partly offset by £12.3m of incremental profit from in-year acquisitions. As a result, return on sales declined to 23.0% (2019: 24.7%).

Adjusted operating profit	£m	%
2019 reported	339.7	
Underlying growth	(26.0)	(7.7)
Impact of acquisitions	12.3	3.7
2020 constant currency	326.0	(4.0)
Impact of currency translation	(6.4)	(1.9)
<b>2020 reported</b>	<b>319.6</b>	<b>(5.9)</b>

Constant currency operating profit in Life Sciences increased by over £27m, reflecting revenue growth and an increase in high value-add Health Care sales. By contrast, profit fell in Personal Care and Performance Technologies, the former due to lower sales and adverse mix, as Beauty Formulation's 'at home' use products held up better during the pandemic than the higher value-add Beauty Actives and Effects businesses, and the latter due to lower sales, adverse mix and higher operating leverage.

Adjusted operating profit	2020 Reported £m	2020 Constant currency £m	2019 Reported £m
Personal Care	<b>136.5</b>	137.3	162.1
Life Sciences	<b>129.4</b>	134.3	107.1
Performance Technologies	<b>54.0</b>	54.6	69.4
Core Business	<b>319.9</b>	326.2	338.6
Industrial Chemicals	<b>(0.3)</b>	(0.2)	1.1
<b>Group</b>	<b>319.6</b>	326.0	339.7

In reported currency, the net interest charge increased to £19.0m (2019: £17.6m), reflecting higher net debt following the Avanti and Iberchem acquisitions. Adjusted profit before tax reduced to £300.6m (2019: £322.1m), a creditable performance in the challenging conditions created by the COVID-19 pandemic.

The effective tax rate reduced to 24.1% (2019: 25.6%). There were no significant adjustments between the Group's expected and reported tax charge based on its accounting profit. Adjusted profit after tax in reported currency was £228.2m (2019: £239.7m). Adjusted basic earnings per share (EPS) were 175.5p (2019: 185.0p), reflecting the lower profit and the share issuance for the Iberchem acquisition in November.

### IFRS profit

IFRS profit is measured after exceptional items, acquisition costs and amortisation of intangible assets arising on acquisition, whereas the adjusted results are presented excluding these items. The charge for these adjusting items before tax was £31.1m (2019: £19.8m). Acquisition costs were significantly higher in 2020 at £11.7m (2019: £0.3m), reflecting the activity in the year. The charge for amortisation of intangible assets was £13.6m (2019: £8.8m), with the increase reflecting recent acquisitions. The charge for exceptional items was £5.8m (2019: £10.7m), reflecting the delivery of the cost-saving actions announced in the 2019 full year results and a discount unwind in contingent consideration.

These have been presented as exceptional by virtue of their nature and for consistency across reporting periods. Profit before tax on an IFRS basis was £269.5m (2019: £302.3m), the profit after tax on an IFRS basis was £201.6m (2019: £223.8m) and basic EPS were 155.1p (2019: 172.8p).

	2020 £m	2019 £m
<b>Income statement</b>		
Adjusted profit before tax	<b>300.6</b>	322.1
Exceptional items, acquisition costs & intangibles	<b>(31.1)</b>	(19.8)
Profit before tax (IFRS)	<b>269.5</b>	302.3
Tax	<b>(67.9)</b>	(78.5)
<b>Profit after tax (IFRS)</b>	<b>201.6</b>	223.8

### From Personal Care to Consumer Care

As set out in the Chief Executive's Review, from 2021 the Group will report under four sectors – Consumer Care, Life Sciences, Performance Technologies and Industrial Chemicals. Consumer Care will comprise the Personal Care sector, including Iberchem and a customer currently reported within Life Sciences, and the Home Care business unit from Performance Technologies. In the 2021 accounts, the 2020 results will be restated for these changes. The table below sets out the new structure, showing both the actual 2020 result and the 2020 outcome had Iberchem and Avanti been owned for the full year ('pro-forma'). It does not include changes in allocation of central and indirect costs.

### Capital allocation and cash management

The Group's capital allocation policy remains to:

- 1. Reinvest for growth** – invest in organic capital expenditure to drive shareholder value creation through new capacity, product innovation and expansion in attractive geographic markets to drive sales and profit growth;
- 2. Provide regular returns to shareholders** – pay a regular dividend to shareholders, representing 40 to 50% of adjusted earnings over the business cycle;
- 3. Acquire disruptive technologies** – to supplement organic growth, continue to target a number of exciting technology acquisitions in existing and adjacent markets, with a focus on our Consumer and Life Sciences businesses; and
- 4. Maintain an appropriate balance sheet and return excess capital** – maintaining an appropriate balance sheet to meet future investment and trading requirements, we are targeting a leverage ratio of 1 to 2x over the medium-term cycle. We consider returning excess capital to shareholders when leverage falls below our target range and sufficient capital is available to meet our investment opportunities, and last returned over £150m through a special dividend in 2019.

In 2020, at a time when other companies were cutting back investment, Croda continued to execute this policy. We invested in future organic growth, with net capital expenditure accelerating to £121.0m (2019: £106.8m), targeting our strategic delivery areas. We have expanded Life Sciences, investing to scale drug delivery, doubling our US speciality excipient capacity and expanding in Japan, while reprioritising £10m in 2020 to deliver COVID-19 solutions for our customers. We have invested to fast-grow in Asia with new labs and digital presence, expanded capacity in Smart Materials in Performance Technologies and invested to grow our sustainable product offerings.

Croda has operated for many years with a prudent leverage and dividend distribution policy. This enabled the Board, after careful consideration of all stakeholders and treating all groups consistently and fairly, to pay the final 2019 ordinary dividend of 50.5 pence per share (£65.0m) in May 2020. In addition, given the resilience of the business model during the COVID-19 pandemic, Croda maintained the interim dividend of 39.5p (2019: 39.5p), paid in October 2020. Given 2020 earnings performance, limited leverage and balance sheet strength, the Board is recommending a full year ordinary dividend of 91.0p (2019: 90.0p). This is a 1.1% increase on the prior year, a 10.5% increase in cash cost and represents 52% of adjusted EPS, with the ratio expected to come within the policy range over the medium term.

2020 saw significant allocation of capital to acquisitions. Building on our leading position in Health Care, in August we completed the acquisition of Avanti Polar Lipids, LLC for an initial consideration of US\$185m and a potential earn-out of up to a further US\$75m. This acquisition was funded from a US\$200m unsecured, committed three-year term loan, with financial covenant requirements consistent with the Group's facilities. Combined with Avanti's cash generation, the acquisition had a limited impact on Croda's leverage and liquidity. Consumer Care is also a priority for capital allocation and in November we acquired Iberchem for a total consideration of €820m. The acquisition was funded by a combination of the Group's existing debt facilities and an equity placing which raised net proceeds of £615m. Return on invested capital (ROIC) reduced to 14.6% (2019: 17.0%), primarily due to the significant allocation of capital to acquisitions during the year. The Economic Value Added (EVA) underpin to Croda's Remuneration Policy reinforces the importance of delivering superior ROIC which is expected to improve as the profit benefits of recent acquisitions develop.

With working capital broadly flat in the year, free cash flow remained robust at £176.9m (2019: £201.7m).

	Sales			Adjusted operating profit		
	As reported £m	New structure £m	Pro-forma £m	As reported £m	New structure £m	Pro-forma £m
<b>2020 reported currency</b>						
Consumer Care	<b>475.9</b>	<b>527.8</b>	<b>666.6</b>	<b>136.5</b>	<b>146.5</b>	<b>171.0</b>
Life Sciences	<b>401.6</b>	<b>392.5</b>	<b>410.5</b>	<b>129.4</b>	<b>124.5</b>	<b>127.5</b>
Performance Technologies	<b>416.4</b>	<b>373.6</b>	<b>373.6</b>	<b>54.0</b>	<b>48.9</b>	<b>48.9</b>
Core Business	<b>1,293.9</b>	<b>1,293.9</b>	<b>1,450.7</b>	<b>319.9</b>	<b>319.9</b>	<b>347.4</b>
Industrial Chemicals	<b>96.4</b>	<b>96.4</b>	<b>96.4</b>	<b>(0.3)</b>	<b>(0.3)</b>	<b>(0.3)</b>
<b>Group</b>	<b>1,390.3</b>	<b>1,390.3</b>	<b>1,547.1</b>	<b>319.6</b>	<b>319.6</b>	<b>347.1</b>

	2020 £m	2019 £m
<b>Cash flow</b>		
Adjusted operating profit	<b>319.6</b>	339.7
Depreciation and amortisation	<b>68.2</b>	57.6
EBITDA	<b>387.8</b>	397.3
Working capital	<b>(2.3)</b>	1.6
Net capital expenditure	<b>(121.0)</b>	(106.8)
Payment of lease liabilities	<b>(7.6)</b>	(8.8)
Non-cash pension expense	<b>7.7</b>	2.8
Interest & tax	<b>(87.7)</b>	(84.4)
Free cash flow	<b>176.9</b>	201.7
Dividends	<b>(115.9)</b>	(266.9)
Issue of new equity	<b>615.5</b>	–
Acquisitions	<b>(869.7)</b>	(5.0)
Other cash movements including acquisition costs	<b>(26.6)</b>	(17.9)
Net cash flow	<b>(219.8)</b>	(88.1)
Net movement in borrowings	<b>237.3</b>	115.4
Net movement in cash and cash equivalents	<b>17.5</b>	27.3

### Net debt and liquidity

After currency translation, net debt increased to £800.5m (31 December 2019: £547.7m). The Group has a strong balance sheet, having completed its debt refinancing in 2019, with no material debt maturities falling due before 2023. Aligned with Croda's commitment to be Climate Positive by 2030, our 'green' banking facility requires Croda to reduce its carbon use every year by a specified amount to receive the most favourable rate of interest. As at 31 December 2020, the Group had committed funding in place of £1,244.3m, with undrawn long-term committed facilities (net of overdrafts) of £378.3m and £106.5m in cash. As a result, the leverage ratio was 1.8x

### Alternative performance measures

We use a number of alternative performance measures to assist in presenting information in this Report in an easily analysable and comprehensible form. We use such measures consistently at the half year and full year and reconcile them as appropriate. The measures used in this statement include:

- *Constant currency results*: these reflect current year performance for existing business translated at the prior year's average exchange rates and include the impact of acquisitions. For constant currency profit, translation is performed using the entity reporting currency. For constant currency sales, local currency sales are translated into the most relevant functional currency of the destination country of sale (for example, sales in Latin America are primarily made in US dollars, which is therefore used as the functional currency). Sales in functional currency are then translated into Sterling using the prior year's average rates for the corresponding period. Constant currency results are reconciled to reported results in this Finance review;
- *Underlying sales and operating profit*: these reflect constant currency values adjusted to exclude the impact of acquisitions. They are reconciled to reported results in this Finance review;
- *Adjusted results*: these are stated before exceptional items, acquisition costs and amortisation of intangible assets arising on acquisition, and tax thereon. The Board believes that the

(31 December 2019: 1.4x), well within a covenant maximum of 3.5x, measured semi-annually.

In the first half year, we reviewed the liquidity and covenant forecasts for the Group for the potential impact of COVID-19 on trading activities. We also considered sensitivities in respect of potential downside scenarios and the mitigating actions available, relative to a base case scenario. The downside scenarios assumed a significant reduction in demand, a material increase in working capital and substantial margin erosion. The evaluation showed that, even in the most pessimistic downside scenario, the Group would continue to have robust liquidity and financial covenant headroom. In the event, the full year result was ahead of the base case scenario. Following the year end, we have repeated the scenario planning and confirmed that the Group is expected to continue to maintain robust liquidity and ample headroom.

### Brexit update

Through the implementation of detailed contingency plans, we saw minimal operational impact from the UK's withdrawal from the European Union (EU) at the end of 2020. We initiated changes to our European trading model, temporarily increased inventory levels to mitigate any risks of delays at borders and ensured that customer service was maintained. We continue to monitor the post-Brexit situation, particularly with regard to cross-border shipping and the proposed UK chemicals regulatory regime.

### Retirement benefits

The post-tax deficit on retirement benefit plans at 31 December 2020 on an accounting valuation basis under IAS19 reduced to £25.3m (2019: £60.1m). Cash funding of the various plans is driven by the schemes' ongoing actuarial valuations. While the triennial actuarial valuation as of 30 September 2020 for the largest pension plan, the UK Croda Pension Scheme, is not yet complete, the scheme is expected to be fully funded on a Technical Provisions basis with no deficit contribution required.

adjusted presentation (and the columnar format adopted for the Group income statement) assists shareholders by providing a meaningful basis upon which to analyse underlying business performance and make year-on-year comparisons. The same measures are used by management for planning, budgeting and reporting purposes and for the internal assessment of operating performance across the Group. The adjusted presentation is adopted on a consistent basis for each half year and full year results;

- *Core Business*: this comprises Personal Care, Life Sciences and Performance Technologies;
- *Return on sales*: this is adjusted operating profit divided by sales, at reported currency;
- *Net debt*: comprises cash and cash equivalents (including bank overdrafts), current and non-current borrowings and lease liabilities;
- *Leverage ratio*: this is the ratio of net debt to Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA) adjusted to include EBITDA from acquisitions in the last 12-month period. EBITDA is adjusted operating profit plus depreciation and amortisation; and
- *Free cash flow*: comprises EBITDA less movements in working capital, net capital expenditure, payment of lease liabilities, non-cash pension expense, and interest and tax payments.

## Risk management

Our risk framework enables the business to protect value, helping us to identify opportunities and minimise threats to the delivery of our strategic and operational objectives.

### How we manage risk

Our Board owns and oversees our risk management programme, with overall responsibility for ensuring that our risks are aligned with our goals and strategic objectives (p68). The Audit Committee assists the Board in monitoring the effectiveness of our risk management and internal control policies, procedures and systems (p71).

Each of our more than 50 strategic and operational risks is owned by an Executive member, and is grouped into 17 subcategories for transparent reporting. Each risk has a risk appetite, visible to all risk owners, owned and reviewed by an Executive member. Risk appetite statements, reviewed annually by the Executive and the Board (p56), are defined for groups of risks (subcategories).

Global visibility of all risks is ensured through our global risk reporting dashboard, updated daily from our risk and control system (the Digital Hive), which enables risk comparison across regions, operations and sectors.

We use our risk framework (p45) to drive an integrated and owned approach to risk management through the culture of the entire organisation:

- Our first line of defence, our employees, have a responsibility to manage day-to-day risk in their own areas guided by Group policies, procedures and control frameworks. Local management, and ultimately the Executive, ensure that risks are managed, maintained, reviewed and actioned according to these frameworks.
- The second line of defence is provided by management team review of each risk register, culminating in review by the Risk Management Committee, which meets quarterly to challenge and monitor current and emerging risks using a bottom-up and top-down approach.
- The third line of defence is assurance over the effectiveness of mitigating controls. This is provided through internal audits, in addition to reports from external assurance providers, which are reviewed by three Executive Committees and monitored and challenged by the Audit Committee and the Board.

We have a Global Crisis Management plan in place to manage significant risk events, owned by the Executive, which is tested based on key risk scenarios at least annually.

### Our key risks

The Board has carried out a robust assessment of emerging and principal risks (the 'key' risks) facing the Group at its meeting in July (p56), including those that would threaten its business model, future performance solvency or liquidity. They received assurance over the effectiveness of mitigating controls through quarterly assurance updates. Our risk heat map (p45) identifies these key pre-mitigation risks, which summarise the local risks identified through the risk framework, and are those that we consider most impact our business model (p12) and the delivery of our long-term strategic goals (p22). They are explained in further detail in the table on pages 46 to 48. Key risks also form the basis of our scenario testing for the assessment of long-term viability of the Company on page 49.

### Changes to our gross risk environment in 2020

Movements on the risk heat map reflect changes to the underlying long-term risk environment that we are facing, not the shorter-term impacts of COVID-19 and Brexit (see case studies below). Product quality and chemical regulatory long-term risks have increased in 2020 as a result of the strategic shift towards health care delivery systems. The acquisition of Iberchem in November 2020 introduces another market and additional risks to the framework, which are currently being assessed by a cross functional team.

### Key risk management – COVID-19

Croda declared a class one crisis in February 2020, gathering together a cross-functional global team to assess the impact on our key risks, what could compromise strategic delivery, develop mitigating strategies and manage communications both internal and external. Initial risks to address were supply chain (raw material security of supply and maintaining customer delivery), and maintaining safe manufacturing operations. The team also assessed the impact on our employee mental health and wellbeing, and ability to work from home as governments globally introduced 'lockdowns' to manage the spread of the pandemic. Our crisis management team remains in place to continue to monitor progress. The Board reviewed the key risks in July 2020 and concluded that they had not changed as a result of COVID-19, confirming the resilience of the risk management framework.

### Key risk management – Brexit

The hard work and focus of the multi-disciplined Brexit team, working throughout 2020 to prepare for the end of the Brexit Transition Period, resulted in a smooth transition for Croda's European business on 31 December 2020. Technical changes to enable a new 'buy/sell' trading model in Europe were completed without issue and risk of supply chain disruption was mitigated by effective contingency planning, including early cut off for customer deliveries in December and holding increased contingency stock in warehouses. Chemical regulatory re-registration is now underway. The project team remains in place to work on remaining actions, to mitigate residual risks and look for further process optimisation opportunities.

### What we monitor

#### Executive Risk Register

Summary of the key risks facing us prepared by combining key risks identified through the local bottom-up registers with Group-level risks identified and owned by the Executive Committee

##### Our risk landscape

###### Current risks

Risks we are managing now that could stop us achieving our strategic objectives

###### Emerging risks

Risks with a future impact from external or internal opportunities or threats. These can be slow moving, as well as rapid velocity

##### What we assess

- **Risk ownership:** each risk has a named owner
- **Likelihood and impact:** globally applied 6x6 scoring scale
- **Gross risk:** before mitigating controls
- **Mitigating controls:** subject to internal audit review and monitoring
- **Net risk:** after mitigating controls are applied
- **Risk appetite:** defined at generic risk and subcategory level and transparent through our risk dashboard
- **Actions:** for further mitigation if required

##### Our identified risks

Six categories, 17 subcategories, over 50 generic risks, one framework:

- Strategic
- People and culture
- Process
- External environment
- Business systems and security
- Financial

#### Our bottom-up registers

The core of our risk assessment. Owned by market sectors, regions, manufacturing sites and functions, they identify local risks and mitigating controls arising from day-to-day operations in over 30 risk registers globally

### How we monitor

#### Board p68

Responsible for the risk framework and definition of risk appetite. Reviews key risks with an opportunity for in-depth discussion of specific key risks and mitigating controls annually. Approves the Viability Statement.

#### Audit Committee p70

Reviews the effectiveness of the Group risk management process. Reviews assurance over mitigating controls, directing internal audit to undertake assurance reviews for selected key risks. Reviews viability scenario assessments.

#### Risk Management Committee p63

Meets quarterly to monitor and review risks other than SHEQ and Ethics.

Standing agenda item to monitor business IT systems and cyber risks and currently Brexit and COVID-19 risk. Covers proactive risk management, risk monitoring and mitigation and internal and external emerging risks including

consideration of the significance of climate-related risks and emerging regulatory requirements.

Receives an in-depth presentation of specific key risks and mitigating controls from risk owners at each meeting.

Considers the results of internal audit work for all risks.

#### Group SHEQ Steering Committee p63

Meets quarterly to review Safety, Health, Environmental and Quality (SHEQ) risks. Monitors against stretching targets and agreed KPIs. Considers the results of assurance audits over SHEQ controls.

#### Group Ethics Committee p63

Meets quarterly to review ethics and compliance risks. Monitors against agreed KPIs. Considers the results of assurance audits over Ethics controls.

### Risk heat map



#### Our principal risks are reported gross (before mitigating controls)

##### Strategic risk

- 1 Revenue generation in established and emerging markets
- 2 Product and technology innovation and protection
- 3 Digital technology innovation
- 4 Delivering sustainable solutions — Climate Positive

##### People and culture risk

- 5 Our people — culture, wellbeing, talent development and retention

##### Process risk

- 6 Product quality/liability claims
- 7 Loss of significant manufacturing site
- 8 Suppliers and raw material security

##### External environment risk

- 9 Product stewardship and chemical regulatory compliance
- 10 Ethics and compliance

##### Business systems risk

- 11 Security of business information and networks

##### Financial risk

- 12 Ineffective management of pension fund

■ Gross risk increase
 ■ Gross risk no change
 ■ Gross risk decrease

Key risk

Strategic

**1. Revenue generation in established and emerging markets**  
 President Regional Delivery and Sector Presidents

**Why this matters to us**  
 To grow, we need to both keep pace with our customers as they serve consumers in emerging markets and grow revenue in established markets. Failure to manage these challenges and the consequences of any geopolitical tensions will adversely impact delivery of our strategic objective to deliver consistent top and bottom-line growth.

**How we respond**  
 Through our global sector sales, marketing and technology teams, we identify consumer trends and respond swiftly to satisfy customer needs through key technologies. Our direct selling model enables us to get closer to our customers. Our resilient business model (p12) and continued focus on growing profit ahead of revenue ahead of volume mitigates profit impact in difficult trading conditions.

- What we have done in 2020**
- Delivered a proactive M&A programme, including acquisition of Avanti, around whose expertise we built our contribution to the global COVID-19 vaccine programme (p9), and Iberchem, adding an attractive capability to our consumer care offering, with 80% of sales in emerging markets (p9)
  - Completed a 'Plan Ahead' review of our strategic objectives prioritising time to think about a post-COVID-19 world and capitalise on emerging trends in our markets
  - Delivered fast growth in our Life Science sector whilst defending our position in Personal Care and Performance Technologies (pages 24 to 29)
  - Our Brexit team delivered a smooth transition at the end of 2020 (case study p44)

**Impact of COVID-19**  
 Whilst customer demand has inevitably been impacted by the crisis, the strength and breadth of our business model have helped to reduce its impact.

**2. Product and technology innovation and protection**  
**Nick Challoner**  
 Chief Scientific Officer

Innovation plays a critical role across our operations; it differentiates us from the competition, protects sales and improves our margins. Failure to drive New and Protected Products through innovation will impact growth and margin.  
 Failure to protect the intellectual property (IP) in these products in existing and new markets could undermine our competitive advantage.

Our outstanding technical research and development (R&D) teams, based in our customer innovation centres and application laboratories globally, focus innovation on customer and market needs and are embedded across our business. We **invest** in: R&D, Open Innovation and Smart Partnership programmes, seeking premium niches and disruptive technology acquisitions. Our specialist IP team **protect** new products and technologies, defending our IP and challenging third-party IP where appropriate.

- Invested in innovative new technology platforms with the acquisition of Avanti and Iberchem (p9)
- Supported rapid COVID-19 vaccine development through the rapid progression of Avanti's lipid nanoparticle system and other innovative technologies
- Invested in major new R&D facilities in Shanghai, the UK and North America (p7)
- Invested in new technology partnerships with Entekno and Anomera, delivering exciting product development opportunities
- Launched new products in all sectors (p24 to p29), expanding in biotechnology to help our customers move away from traditional petrochemical ingredients

By providing a COVID-19 secure environment in which to work, our R&D teams have had significant laboratory time, protecting our future innovation pipeline.

**3. Digital technology innovation**  
**Jez Maiden**  
 Group Finance Director

Digital technology is a significant disruptor, rapidly changing markets that we operate in, changing the way we interact with our external partners and each other. New and established customers expect a high level of online service, from researching ingredients to buying, and failure to meet these ahead of competitors will impact growth, hinder R&D knowledge sharing and create inefficient processes.

Dedicated centres of excellence focus on our business model areas of Create, Make and Sell (p12) and provide global leadership to take advantage of the fast evolving digital world. They deliver an integrated market-facing environment that encompasses everything from product development through artificial intelligence-enabled manufacture, to customer service. Digital pilot projects embedded in the organisation support agile, local trials of innovative ideas, which can grow into global initiatives.

- Create: invested in building a global R&D knowledge management system, to share global R&D expertise
- Make: rolled out a global supply chain planning solution and implemented real-time monitoring of production plant performance (p9)
- Sell: trained sales teams in the use of new digital CRM tools. Prioritised the use of digital for customer engagement, rolling out Live Chat functionality in 35 countries

Created enhanced dialogue and route to customers during lockdown.

**4. Delivering sustainable solutions – Climate Positive**  
**Stuart Arnott**  
 President Sustainability

Increasing global consumer concerns over climate change have heightened both our customers' and our own focus on our core strategy of turning bio-based raw materials into innovative ingredients with sustainable benefits in use. We also focus on the impact of climate change on our own ability to supply.

Sustainability is the biggest driver of our strategy and failing to remain ahead will damage our reputation and compromise growth.

In line with our Purpose, Smart science to improve lives™ our Commitment to become the most sustainable supplier of innovative ingredients remains at the core of what we do. By aligning our smart science with United Nations Sustainable Development Goals (SDGs) we are committed to being Climate Positive by 2030 and are well aligned with the growing requirements of our customers to move to a low carbon economy.

Through our sustainability focus, we make decisions to mitigate, transfer, accept or control climate-related transitional and physical risks based on their impact. See more in our 2020 Sustainability Report.

- Engaged with investors through seminars (p21)
- Developed decarbonisation roadmaps for manufacturing sites representing 90% of our total emissions and will complete for all locations by the end of 2022 (p32)
- Increased the bio-based content of our organic raw materials to 67% (p33)
- Met our 2020 environmental targets including reduction of our greenhouse gas emissions by over 15% (p32) and waste to landfill by 34% (p36)
- Implemented an internal carbon price for all capital expenditure applications (p32)
- Our leadership was recognised by achieving the highest EcoVadis Platinum recognition award and we are included in FTSE4Good UK 50
- See more on pages 30 to 37 and in our 2020 Sustainability Report

Our flexible and agile manufacturing assets enabled us to swap production to ensure customer delivery was not compromised.

## Link to our strategy (p22)

- Growth: consistent top and bottom line growth
- Innovation: increase the proportion of NPP that we sell
- Sustainability: align our business with our Purpose and accelerate our customers' transition to sustainable ingredients

## Risk movement

- Risk increase
- No change
- Risk decrease
- Included in viability statement (see page 49)

## Link to our business model (p12)

- Engage
- Create
- Make
- Sell

## People and culture

## Process fundamentals

## 5. Our people – culture, wellbeing, talent development and retention

**Tracy Sheedy**  
Group HR Director



## 6. Product quality/liability claims

**Tom Brophy**  
Group General Counsel



## 7. Loss of significant manufacturing site (major safety or environmental incident)

**Mark Robinson**  
President Global Operations



## 8. Suppliers and raw material security

**Mark Robinson**  
President Global Operations



## Why this matters to us

Retaining and developing the experience and motivation of all our knowledgeable and diverse employees is critical to maintaining our ability to deliver our strategic priorities. Failing to maintain our distinctive Croda culture within which people thrive and which attracts new and diverse talent to join the Company would significantly damage our ability to innovate and grow.

## How we respond

A clear Purpose, strong development culture, excellent learning opportunities and competitive reward programmes support the retention, engagement and career development of the high-quality teams we need. Global graduate and management development programmes include stretching and high-profile assignments and provide a pipeline of internal talent.

Our bi-annual global talent review process considers resources and succession plans for critical roles, with actions monitored by the Executive Committee and the Board.

## What we have done in 2020

- Implemented a global mentoring programme, upgraded our leadership programmes and increased our online training courses to support the development of our employees
- Articulated and rolled out 'Our Difference', a summary of our cultural aspirations and supporting our Purpose, including updated values
- Addressed increased risks to employee wellbeing and mental health through provision of tailored training sessions and increased communications
- Regular and focused pulse surveys enabled employee concerns to be quickly identified and addressed. Employee response rates to these were high c.70%

## Impact of COVID-19

Almost all our employees have been able to work effectively, either on-site or from home. We have not furloughed employees or reduced pay.

We sell into a number of highly regulated applications. Non-compliance with our customers' stringent product quality requirements, global and local regulation could expose us to liability claims, significant reputational damage and compromise our ability to grow, especially in light of our commitment to expand to grow Life Sciences.

Monitored by our Group SHEQ Steering Committee (p63), our sites and products are certified to demanding external quality standards highly valued by our customers (including ISO 9001, GMP and Excipact). Our global network of quality professionals enforce compliance with the Group Quality manual, assured through internal audits delivered by our specialist Group Quality audit team and external certification audits. We work proactively with relevant trade associations to shape future regulation.

- Launched our 'right first time' initiative to help us reach our ambitious target of 99.5% by 2030, creating the position of Business Process Director to co-ordinate efforts globally
- Reviewed and updated our product quality policy, template agreements, guidance and employee training using industry best practices. We use these agreements to formalise our quality commitments to our customers
- Undertook a detailed risk assessment of the implications of supplying novel excipients into vaccines
- Established a cross-functional team to commence a detailed risk assessment of our Health Care business, with particular focus on the growth of this business in the area of patient health
- See more on page 37 and in our 2020 Sustainability Report

Our quality standards continued to operate at all sites, with strict social distancing measures in place to protect our people.

We rely on the continued sustainable operation of our manufacturing sites around the world.

Climate change directly impacting the location of a site or availability of utilities used, or a major event causing loss of production and violating safety, health or environmental regulations, could limit our operations. This could also expose the Group to liability, cost and reputation damage, especially in light of our commitment to sustainability and customer service.

Monitored by our Group SHEQ Steering Committee (p63), our global network of site-based safety professionals enforce compliance with global policies and procedures defined in the Group SHE manual. Assurance is provided by the specialist Group SHE internal audit team, whilst external auditors certify our compliance with international safety standards. Our sites are certified to ISO14001 standards.

Risks specific to each site are identified in 'bottom-up' risk registers and local business continuity plans are in place which are regularly tested.

- Rapid investment in new manufacturing capability to serve the high growth patient health market increased the risk of major site incidents. Operational teams demonstrated flexibility and focus and we sustained our good process safety performance despite the increased risks, with no serious incidents with major accident potential
- Launched our revised SHE Behaviour standard to help mitigate the increased risk of loss of focus resulting from COVID-19
- The North American biosurfactant plant, which came online in early 2020, was unable to operate from September 2020 after air permit limit deficiencies were identified (p36). It is expected to be operational again in the first half of 2021

All but two of our manufacturing sites have continued to operate without interruption, with strict social distancing measures in place to protect our people.

Sourcing from suppliers who do not share our ethical stance could lead to reputation damage, especially in the light of our sustainability commitment.

Any interruption in the supply of key raw materials would affect our operations and financial position. Such a disruption could arise from market shortages, climate change impacting the locations where bio-based raw materials grow or from new restrictive legislation.

Professional purchasing teams based in our regions develop good relationships with our suppliers and proactively monitor supply to identify and manage potential future shortages. To protect supply, we agree long-term contracts where appropriate, source from multiple suppliers, or build up our own inventories.

We ask higher risk suppliers to complete an EcoVadis self assessment and follow up results with them.

- Appointed a new Head of Procurement to provide global leadership. She will enhance and refresh our global procurement framework and processes in 2021
- Communicated a comprehensively reviewed and updated supplier code of conduct to all suppliers
- Employed a third party to undertake a strategic analysis of our raw material supply chain for critical products
- Assessed suppliers of around 50% of our total spend against the EcoVadis platform and worked closely with them to drive improved processes
- See more on pages 18 and 36 and in our 2020 Sustainability Report

Global supply chain and procurement teams worked together to mitigate the impact on customer delivery, including relating to short term raw material shortages.

External environment

**9. Product stewardship and chemical regulatory compliance**  
**Stuart Arnott**  
 President Sustainability

Why this matters to us

As a global chemical manufacturer, we operate in highly regulated markets. Violation, incomplete knowledge or unidentified change of any regulation could limit the markets into which we can sell, expose the business to penalties and compromise growth.

Product stewardship for us means going beyond the minimum requirements for regulatory compliance, building upon the knowledge we gain from regulation and enhancing it to fully understand our products' impact beyond our factory gate.

How we respond

Global regulatory expertise is provided by our in-house team of specialists, who have in-depth knowledge of our regional and market regulatory frameworks. They work proactively to influence regulation and are an integral part of our new product development process. We use the SAP EHS module to ensure that regulatory changes are applied to existing products.

Our global product advisory teams work closely with customers to identify the most appropriate product for their needs.

What we have done in 2020

- Influenced the discussion about the direction of the UK REACH legislation and started a programme to deliver
- Successfully transferred EU REACH registrations to our EU trading companies and identified and pre-registered the relevant substances for both Korea and Turkey's REACH equivalent legislation, ensuring continued service to customers
- Established a Product Stewardship Working Group consisting of internal regulatory and technical experts to progress our product Life Cycle Assessment work (p37)
- Developed a sustainability impact assessment (SIA) methodology for product/application combinations

Impact of COVID-19

No significant impact

**10. Ethics and compliance**  
**Tom Brophy**  
 Group General Counsel

We are subject to UK legislation which is far-reaching in terms of global scope and often more rigorous than local legislation (for example, the Bribery Act).

Our increased presence in emerging economies and the increasingly frequent introduction of new regulation create an elevated compliance and reputational risk.

Our Group Ethics Committee (p63) meets quarterly to consider new legislation requirements and to promote the importance of ethics and compliance across our business and stakeholder ecosystem.

Compliance training and education programmes are rolled out globally, with results monitored by the Committee.

No significant impact

Business systems and security

**11. Security of business information and networks**  
**Jez Maiden**  
 Group Finance Director

Society and business are subject to more numerous and increasingly sophisticated threats to security, including hackers, viruses and ransomware attacks, and keeping our data safe is subject to increasingly stringent regulatory requirements globally.

We rely heavily on the availability of IT networks and systems; an extended interruption of these services may result in an inability to operate.

We run our key applications in distributed computing environments with regular failover testing and penetration testing being undertaken. Our information security specialists monitor our IT services and networks, oversee cyber protection solutions and provide cyber awareness education globally, whilst internal and external auditors review and report on the operation of all cyber and system controls annually.

Significant increase of home workers globally raised the risk of lower productivity and increased exposure to cyber-security risk

Financial

**12. Ineffective management of pension fund**  
**Jez Maiden**  
 Group Finance Director

We maintain an open defined benefit pension scheme in the UK. This faces similar risks to other such schemes including future investment returns, longer life expectancy and regulatory changes that could result in pension schemes becoming more of a financial burden.

The Group maintains close dialogue with the UK Pension Trustee, and the move to a career average capped salary basis of calculation in 2016 mitigated some of the risks. The pension fund investment strategy (including a triennial valuation review) is delivered with the support of professional advisers, and trained pension fund Trustee Directors take professional advice and monitor and review arrangements quarterly.

Government response to lower funding costs resulting in increased liabilities

## Long-term viability statement

Based on their assessment of prospects and viability, the Directors confirm that they have the expectation that the Company will be able to continue in operation and meet its liabilities as they fall due over the next three years to 31 December 2023.

### Confirmation of viability

Based on their assessment of prospects and viability, the Directors confirm that they have an expectation that the Company will be able to continue in operation and meet its liabilities as they fall due over the next three years to 31 December 2023. The Directors also considered it appropriate to prepare the financial statements on the going concern basis, as explained in the Group Accounting Policies (p121).

### The viability assessment period

The Directors have assessed the viability of the Company over the three-year period to 31 December 2023, taking account of the Company's current financial position and the potential impact of our key risks. In assessing the prospects of the Company and determining the appropriate viability period, the Board has taken account of:

- the three-year financial and strategic planning cycle, supported by detailed financial modelling which considers profitability, cash flows, gearing and other key financial metrics. Given the impact of COVID-19, additional stress testing has been undertaken as part of the going concern review (p121) on the Company's ability to operate under extremely unfavourable operating conditions;
- the three-year investment planning cycle; the three-year period reflects the typical maximum lead time involved in developing new capacity. Both financial and investment planning are led by the CEO and reviewed by the Board;
- the Company's strong cash generation and its ability to renew and raise debt facilities in most market conditions (p40);
- the resilient business model (p12) and the Company's diversified portfolio of products, operations and customers, which reduce exposure to specific geographies and markets, as well as large customer/product combinations; and
- the strong, sector-led innovation pipeline (p24 to p29), which supports the Company's business through development of new sales growth opportunities, protects sales and margins, differentiates the Company from competitors and provides barriers to entry. The Board reviews this over a period of longer than three years in line with longer development cycles for new products, however, it considers that, in assessing the viability of the Company, its investment and planning horizon of three years is the appropriate period.

### Assessment of viability

Using the base case model developed for going concern assessment, viability has been assessed by considering the top-down headroom available under multiple bottom-up worst case risk scenarios, both individually and in combination. This year, top-down headroom is considered to be more than adequate, and the results of the bottom-up scenario modelling showed that no individual event or plausible combination of events (the most significant of which was scenario F below) would have a financial impact sufficient to endanger the viability of the Company in the period assessed.

### Top-down headroom

Assesses the Company's overall funding capacity to withstand catastrophic events.

**Bank leverage covenant** The leverage ratio at the end of 2020 of 1.8x remains substantially below the maximum covenant level under the Group's lending facilities of 3.5x, providing significant headroom. EBIT would need to fall by more than 70% before triggering an event of default. We could also take action to conserve cash.

**Debt headroom** The current level of committed debt facilities total £1,244m, over 80% of which mature after the end of the viability period. Our going concern modelling shows that the Group remains cash generative for all bottom-up scenarios considered.

### Bottom-up headroom

Considers the potential financial impact of scenarios based on the Company's key (emerging and principal) risks identified on pages 46 to 48, both individually and in plausible combination.

Scenario combination modelled	Related risks (p 46 to 48)
Scenario A. New entrants or enhanced competition across multiple market sectors results in loss of significant business.	1. Revenue generation in established and emerging markets (p46) 2. Product and technology innovation and protection (p46) 3. Digital technology innovation (p46)
Scenario B. Business loss due to regional geopolitical and economic events and trade changes such as Brexit.	1. Revenue generation in established and emerging markets (p46)
Scenario C. Restriction on use or availability of key raw materials impacts a key technology platform resulting in significant loss of business.	2. Product and technology innovation and protection (p46) 8. Suppliers and raw material security (p47)
Scenario D. Significant cyber attack results in loss of IT systems for a prolonged period resulting in inability to operate.	11. Security of business information and networks (p48)
Scenario E. Significant compliance breach, combined with a significant cyber attack, damages our reputation for sustainable delivery resulting in loss of business.	4. Delivering sustainable solutions – Climate Positive (p46) 10. Ethics and compliance (p48) 11. Security of business information and networks (p48)
Scenario F. Catastrophic uninsured loss of manufacturing capability combined with a product recall which damages reputation, enabling competitors to make significant inroads into our business.	6. Product quality/liability claims (p47) 7. Loss of significant manufacturing site (p47)