

Press Release

1 March 2022

Results for the year ended 31 December 2021

Record financial performance - strategy executed with agility

Croda International Plc ("Croda" or the "Group"), the company that uses smart science to create high performance ingredients and technologies that improve lives, announces its full year results for the year ended 31 December 2021.

Highlights

	Statutory results (IFRS)				Adjusted results		
							change
Full year ended 31 December	2021	2020	change	2021	2020	change	constant
Sales (£m)	1,889.6	1,390.3	35.9%	1,889.6	1,390.3	35.9%	43.2%
Operating profit (£m)	438.2	290.0	51.1%	468.6	319.6	46.6%	54.4%
Return on sales (%)	430.2	230.0	31.170	24.8	23.0	180bps	J4.470
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Profit before tax (£m)	411.5	269.5	52.7%	445.2	300.6	48.1%	56.2%
Basic earnings per share (p)	230.0	155.1	48.3%	250.0	175.5	42.5%	
Ordinary dividend per share (p)	100.0	91.0	9.9%				
Free cash flow (£m)				153.6	176.9	(13.2)%	
Net debt (£m)				823.2	800.5	2.8%	

Record financial performance

- All businesses trading ahead of pre-pandemic levels
 - Underlying sales up 26% on 2020 comprising volume up 9% and price/mix up 17%
 - Underlying sales 18% ahead of 2019, excluding lipid systems[†]
 - Adjusted operating profit up 47% on 2020 (and 38% higher than 2019)
 - IFRS profit before tax up 53%
 - o Return on sales up 180 basis points to 24.8% (2020: 23.0%)
 - Adjusted earnings per share up 43% on 2020 (and 35% higher than 2019)
- Navigating inflation well successful cost recovery
- Increased innovation New and Protected Products (NPP) up from 27% to 37% of total sales
- Proposed full year ordinary dividend increased 10%

Significant benefit from recent acquisitions – £58m additional operating profit and stronger growth platform

- Lipid systems platform well established in patient health care delivery approximately US\$200m (£145m) sales, primarily to our principal vaccine customers
- Fast growth across all three patient health care platforms 130 new customers and 250 new programmes, two thirds for non-COVID applications
- Encouraging F&F performance despite challenging emerging markets; first cross-selling synergies delivered

Strategic transition to pure-play Consumer Care and Life Sciences company with accelerated investment

- Agreement to sell majority of Performance Technologies and Industrial Chemicals ('PTIC') for €915m (including €140m for Sipo, subject to Croda acquiring 100%) completion expected summer 2022
- Organic capital investment increased over 30% to nearly £160m, with resultant free cash flow 13% lower –
 confidence in investment to support strategy to scale consumer, health and crop care businesses to drive
 consistent sales growth and even stronger profit margins

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Sector performance*

- Delivering a stronger Consumer Care performance total sales increased by 45%, underlying by 18%
 - Strong rebound in Personal Care, reflecting performance of both Beauty Actives and Beauty Care
 - o Continued innovation NPP reached 44% of total sector sales (2020: 38%)
 - Acquired Alban Muller and Parfex accelerating transition to more natural raw materials
- Outstanding performance in Life Sciences total sales up 46%, underlying sales ex lipid systems[†] up 18%
 - Record adjusted operating profit, up 68% return on sales of 36.4% (2020: 31.7%)
 - Health Care sales growth of 80% excellent performance in patient health care, led by lipid systems for COVID-19 mRNA vaccines
 - Significant increase in innovation NPP at 48% (2020: 27%)
 - o Strong second half performance in Crop Protection, offsetting softness in Seed Enhancement
- Performance Technologies sales up 18%; adjusted operating profit up 32%, benefiting from operating leverage

			Full year end	ed 31 December			
Sales	2021 £m	Price/mix	Volume	Acquisition	Currency	Change	2020 restated [*] £m
Consumer Care	763.0	12.8%	5.2%	34.9%	(8.3)%	44.6%	527.8
Life Sciences	572.3	34.9%	5.5%	13.1%	(7.7)%	45.8%	392.5
Performance Technologies	439.5	11.0%	12.5%	-	(5.9)%	17.6%	373.6
Industrial Chemicals	114.8	14.6%	10.3%	-	(5.8)%	19.1%	96.4
Group	1,889.6	17.4%	8.9%	16.9%	(7.3)%	35.9%	1,390.3

Full year ended 31 December

Underlying sales growth compared with pre-pandemic levels (excluding lipid systems $^{\!\dagger}\!)$	Full year change 2021 vs. 2019
Consumer Care	17.3%
Life Sciences	23.6%
Performance Technologies	15.9%
Industrial Chemicals	8.0%
Group	17.7%

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Adjusted profit	2021 £m	Underlying growth £m	Acquisition impact £m	Currency impact £m	2020 restated [*] £m	Change
Consumer Care	188.5	27.8	26.0	(11.8)	146.5	28.7%
Life Sciences	208.5	62.5	31.8	(10.3)	124.5	67.5%
Performance Technologies	64.5	17.9	-	(2.3)	48.9	31.9%
Industrial Chemicals	7.1	7.8	-	(0.4)	(0.3)	-
Operating profit	468.6	116.0	57.8	(24.8)	319.6	46.6%
Net interest	(23.4)				(19.0)	23.2%
Profit before tax	445.2				300.6	48.1%

Acquisition impact measured over first 12 months of ownership; thereafter classified as underlying

Steve Foots, Chief Executive Officer, commented:

"2021 has been an outstanding year for Croda, with record financial results and excellent strategic progress. All parts of the business have delivered underlying growth, ahead of 2019 pre-pandemic levels, with strong cost recovery in a high inflation environment. Our Health Care business delivered an exceptional performance as a result of the work we have done to support the global roll out of COVID-19 mRNA vaccines and therapeutic drugs, and a rapidly building pipeline of non-COVID applications. This progress has been supported by further organic and inorganic investment to increase innovation and strengthen our platform for future growth.

"I'm grateful to Croda colleagues around the world who have risen to the dual challenges of responding to a rapid recovery in customer demand whilst managing ongoing COVID-19 restrictions. I am also delighted that we have established the Croda Foundation, which is already helping over 50 million people globally by supporting vaccine infrastructure.

"Our excellent strategic progress during the COVID-19 pandemic has included progressing our transition to a pure-play Consumer Care and Life Sciences company, with our agreement to sell the majority of our industrial businesses. As a result, Croda will now be focused on faster growth, higher return markets, positioning us to deliver more consistent sales growth and an even stronger profit margin."

Outlook

Growth is expected to continue in 2022 in line with our medium-term expectations. This should be supported by robust consumer demand, inflation cost recovery and the benefit of our recent investments more than offsetting moderation in customer restocking. Lipid systems sales are expected to be at a similar level to 2021. With an increasing proportion of Group sales coming from higher value add solutions, profit margins in Consumer Care and Life Sciences are expected to remain strong.

The combination of our differentiated business model, healthy innovation pipeline and current investment programme are expected to underpin performance and continue to generate value for all our stakeholders.

Further information:

An investor presentation will be available via webcast at 0900 GMT on 1 March 2022 at www.croda.com/investors.

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Notes:

Sector results for full year 2020 have been restated to reflect a change in 2021 to the Group's reporting structure.

†Lipid systems comprise lipid excipients and other Avanti lipid technology products. They are excluded from this growth calculation to give a more informative comparator to 2019, given the sales arising from COVID-19 contracts secured since 2019.

Alternative Performance Measures (APMs): We use a number of APMs to assist in presenting information in this statement in an easily analysable and comparable form. We use such measures consistently at the half year and full year, and reconcile them as appropriate. Whilst the Board believes the APMs used provide a meaningful basis upon which to analyse the Group's financial performance and position, which is helpful to the reader, it notes that APMs have certain limitations, including the exclusion of significant recurring items, and may not be directly comparable with similarly titled measures presented by other companies.

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. Constant currency results are the primary measure used by management to monitor the performance of overseas business
 units, since they remove the impact of currency translation into Sterling, the Group's reporting currency, over which those overseas units have no control.
 Constant currency results are similarly useful to shareholders in understanding the performance of the Group excluding the impact of movements in
 currency translation over which the Group has no control. Constant currency results are reconciled to reported results in the Finance Review. The APMs
 are calculated as follows:
 - a. 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;
- Underlying results: these reflect constant currency values adjusted to exclude acquisitions and disposals in the first year of impact. They are used by management to measure the performance of each sector before the benefit of acquisitions or the impact of divestments are included, in order to assess the organic performance of the sector, thereby providing a consistent basis on which to make year-on-year comparison. They are seen as similarly useful to shareholders in assessing the performance of the business. Underlying results are reconciled to reported results in the Finance Review;
- Adjusted results: these are stated before exceptional items and amortisation of intangible assets arising on acquisition, and tax thereon. The Board
 believes that the adjusted presentation (and the columnar format adopted for the Group income statement) assists shareholders by providing a
 meaningful basis upon which to analyse 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;
- Return on sales: this is adjusted operating profit divided by sales, at reported currency. Management uses the measure to assess the profitability of each
 sector and the Group, as part of its drive to grow profit by more than sales value, in turn by more than sales volume, as set out in the Chief Executive's
 Review;
- Return on invested capital (ROIC): this is adjusted operating profit after tax divided by the average adjusted invested capital. Adjusted invested capital represents net assets adjusted for net debt, earlier goodwill written off to reserves and accumulated amortisation of acquired intangible assets. The Board believes that ROIC is a key measure of efficient capital allocation, in line with its policy set out in the Finance Review, with its aim being to maintain a ROIC of two to three times the cost of capital over the cycle, and that it is useful to shareholders in assessing the superior returns delivered by the Group and the impact of deploying more capital to grow future returns faster;
- Net debt: comprises cash and cash equivalents (including bank overdrafts), current and non-current borrowings and lease liabilities. Management uses
 this measure to monitor debt funding levels and compliance with the Group's funding covenants which also use this measure. It believes that net debt is a
 helpful additional measure for shareholders in assessing the risk to equity holders and the capacity to invest more capital in the business;
- Leverage ratio: this is the ratio of net debt to Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA) adjusted to include EBITDA from
 acquisitions or disposals in the last 12 month period. EBITDA is adjusted operating profit plus depreciation and amortisation. The Board monitors the
 leverage ratio against the Group's debt funding covenants and overall appetite for funding risk, in approving capital expenditure and acquisitions. It
 believes that the APM is a helpful additional measure for shareholders in assessing the risk to equity holders and the capacity to invest more capital in the
 business;
- 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. The Board uses free cash flow to monitor the Group's overall cash generation capability, to assess the ability of the Company to pay dividends and to finance future expansion, and, as such, it believes this is useful to shareholders in their assessment of the Group's performance.

Croda International Plc Group Performance Review

We use a number of APMs to assist in presenting information in this statement in an easily analysable and comparable form (see page 3). All comparators are full year 2020 unless otherwise stated. Sector results for full year 2020 have been restated to reflect a 2021 change to the Group's reporting structure.

Creating a pure-play Consumer Care and Life Sciences company

2021 has been an outstanding year for Croda, with record financial results and excellent strategic progress. This has been enabled through the accelerated implementation of our strategic priorities, increased investment in innovation and growth, and a broader global recovery in demand.

Our excellent strategic progress during the COVID-19 pandemic has included progressing our transition to a pure-play Consumer Care and Life Sciences company. Our 2020 acquisitions of Avanti and Iberchem, which created new growth platforms in our target markets, have been followed by our recent agreement to divest the majority of our Performance Technologies and Industrial Chemicals businesses ('PTIC'). This will release more capital to reinvest in faster growth, higher return markets, positioning us to deliver more consistent sales growth and an even stronger profit margin.

This strategic progress is consistent with our Purpose of using *Smart science to improve lives*TM. The importance of our sustainability Commitment, made in 2020, has come to the fore, with consumers everywhere seeking more sustainable products and customers needing Croda to help decarbonise their supply chains. Our part in helping produce COVID-19 vaccines is a proud example of our smart science in action. Our capabilities in sustainability and innovation will drive our future growth. Croda is becoming a more knowledge intensive business, investing more in commercialising R&D, expanding emerging market exposure and increasing the value captured from our products. We are focused on the fast growth markets of the future, making bigger and bolder bets to expand our leadership positions and drive significant value creation.

The results of this strategic action can be seen in 2021's performance. It was a record year for sales and profit, with every part of the Group performing well. The strength of the 'existing' Croda business was clearly demonstrated, with underlying sales growing by 26% and underlying growth in adjusted operating profit of £116m over 2020. Consumer Care led the way, with a strong recovery in Personal Care. Alongside this, we realised significant benefits from recent acquisitions in Consumer Care and Life Sciences, delivering £58m of additional adjusted operating profit within the first year post-acquisition. Our 2020 acquisition of Avanti has helped to establish the lipid systems platform in Health Care, with approximately US\$200m of sales in 2021, primarily to our principal vaccine customers. We deployed more capital and resources to scale our consumer, health and crop care technologies. We increased innovation spend by over 50% on 2020 and the proportion of New and Protected Products (NPP) from 27% to 37% of total sales. We increased annual organic capital investment by 31% to almost £160m; reflecting our successful 'buy and build' approach. This has allowed us to unlock the potential of Avanti and Iberchem, acquiring adjacent technology platforms and then scaling them through organic investment.

To deliver these record results, our colleagues have risen to the dual challenges of responding to a rapid recovery in customer demand whilst managing ongoing COVID-19 restrictions. Combined with global disruption affecting many industries, supply chain management has been challenging but, thanks to the efforts of our global team, we have managed to supply the increased demand whilst limiting the impact on customer service. I am proud that we have continued to support our stakeholders and keep our colleagues safe, and I would like to thank everyone at Croda for their commitment.

Record financial results

In 2021, reported sales grew by 36% to £1,889.6m (2020: £1,390.3m). Underlying sales were up 26% and acquisitions added 17% (both at constant currency), while stronger Sterling saw an adverse impact from currency translation of 7%. Notably, underlying sales were 18% ahead of 2019 (excluding sales of lipid systems introduced since 2019, for better comparability), demonstrating significant growth against pre-pandemic levels. 2021 also saw the most significant period of raw material cost increases in over a decade, up by 17% in the underlying business. With full cost recovery achieved through Croda's powerful operating model, alongside a strengthening product mix, this helped drive underlying sales price/mix 17% higher year-on-year. Despite higher prices, most markets globally saw strong demand recovery, and underlying sales volume rose 9%.

Strong demand and the faster growth of higher value-add technology platforms across Life Sciences and Consumer Care resulted in a record profit margin for the Group. Return on sales rose 180 basis points to 24.8% (2020: 23.0%). In Life Sciences, the highest growth was in the patient health care platforms, which increasingly focus on producing high value products. Personal Care returned to good growth within the Consumer Care sector and a recovery in Performance Technologies markets benefitted operating leverage. The combination of sales growth, acquisition and improved margin saw reported profit before tax (on an IFRS basis) increase by 53% to £411.5m (2020: £269.5m), while adjusted profit before tax increased by 48% to a record full year result of £445.2m (2020: £300.6m) and was 38% higher than 2019. With adjusted earnings per share 43% higher, the Board has proposed a rise of 10% in the full year ordinary dividend, completing a thirty year record of consistently increasing the annual ordinary dividend.

Cash generation in 2021 supported an increase in working capital, reflecting the higher costs of raw materials and a tactical increase in inventory to support customer service levels, and an increased allocation of capital investment to the strategic growth markets of Consumer Care and Life Sciences, as part of the divestment of the majority of PTIC. Health Care is a key investment focus for us, with over £70m invested to expand our three patient health care platforms, including new capacity for speciality excipients in therapeutic drug delivery, further build out of the lipid systems platform and expansion of the fast growing vaccine adjuvant platform.

We also committed funding to create a new combined fragrance and Beauty Active facility for Consumer Care, to accelerate sales growth in China, and a new proteins capability in Home Care. In R&D, we invested £5m in expanding innovation centres and in disruptive process technologies. We supplemented this organic investment with the acquisition of adjacent technologies, acquiring two businesses in Consumer Care which are accelerating our transition to natural raw materials. In March, we acquired natural Beauty Actives specialist Alban Muller for €25m and in June we completed on Parfex for €45m, strengthening Iberchem's position in fine and natural fragrances.

Growth across all regions and sectors

All geographic regions delivered good sales and profit growth. Consumer recovery was strongest in North America, with Asia and Europe also seeing double digit percentage growth in underlying Consumer Care sales. Latin America saw excellent Crop Care sales and all regional markets saw good progress in Performance Technologies. Health Care sales grew across the globe, with Europe and North America benefitting from the lipid systems platform.

A stronger Consumer Care business

2021 saw the creation of the Consumer Care sector, comprising Croda's leading global position in Personal Care, the recently acquired lberchem fragrances and flavours ('F&F') business and Home Care. Consumer Care delivered an excellent sales performance in 2021, up 45% in reported terms, with underlying sales 18% higher. This was supplemented by 35% growth from acquisitions and partly offset by adverse currency translation of 8%. Adjusted operating profit increased by 29% (and by 26% on an IFRS basis), with return on sales of 24.7% (2020: 27.8%); the latter reduction reflected dilution from the acquisition of lberchem, with F&F industry margins structurally lower than those of Personal Care. A strengthening product mix overall saw profit margin improve in the second half year.

After a steady recovery in the second half of 2020 from the negative impact of COVID-19 on 'going out' sales of actives and cosmetics, Personal Care performance improved markedly in 2021. This was led by a resurgence in consumer demand for our innovative, high value Beauty Actives products. In previous years, Personal Care performance has been held back by softer growth in our heritage Beauty Care formulation ingredients, particularly in North America and Asia. Beauty Care enjoyed a return to growth in 2021, benefitting from customer restocking and innovative sustainability-driven ingredients, including bio-based surfactants from the US plant, which was fully operational from the end of the first quarter. Improved demand continued through the year, resulting in 2021 Personal Care underlying sales 15% above 2019 prepandemic levels and a return on sales of 30%. Growth continued in Home Care, reflecting customer interest for sustainable products from our US ECO plant and excellent demand for Croda's innovative fabric care offering.

In Consumer Care, we are already recognised as the leading innovator in ingredients for the personal care and home care markets. Our acquisition of Iberchem has given us a similar platform in F&F, with innovation at the heart of its business, offering customers on-trend fragrances, particularly for emerging markets. We are delivering the first cross-selling synergies from Croda's global presence, including the launch of Iberchem fragrances into the large Brazil market, leveraging Croda's local operation. With lower vaccination rates, emerging markets have seen softer demand due to COVID-19, which has constrained sales in the short term, but the F&F business still delivered double digit percentage growth in 2021, including the mid-year acquisition of Parfex.

Rapid expansion in Life Sciences

With an excellent 2021 performance, Life Sciences now rivals Consumer Care in scale. Sales grew 46% in reported terms in 2021, with underlying sales over 40% higher. This was supplemented by over 13% growth from acquisition in the first year of ownership and was partly offset by adverse currency translation of 8%. Adjusted operating profit increased by

67% (and by 79% on an IFRS basis), with return on sales reaching 36.4% (2020: 31.7%). As noted at the half year, achieving this level of growth and profit improvement in such a short period placed significant demands on the business and, as anticipated, the margin level moderated in the second half of the year, as we invested in additional people and brought new capacity on-stream to future-proof this growth.

Life Sciences is leveraging in-house developed and acquired technologies, building further scale to deliver customers' drug, vaccine and crop science products. It is moving into faster growth, higher value/lower volume niches. In 2021, the strongest growth was seen in the Health Care business, with reported sales up 80% year-on-year. This was driven by our focus on patient health care platforms. Whilst much of this growth was delivered by Avanti and the scale-up of its exciting lipid systems platform by Croda's UK Health Care site, resulting in around US\$200m (£145m) of sales to COVID-19 mRNA vaccines, speciality excipients and vaccine adjuvants also grew by over 40%. With continued investment in these platforms, double digit percentage organic sales growth is expected to continue into the medium term.

Our Health Care business has had outstanding early success with its involvement in COVID-19 vaccines, but even more importantly, we have built a foundation for Croda in biopharma drug delivery. Whilst the majority of lipid system sales in 2021 were to our principal COVID-19 vaccine customers, opportunities in other drug and vaccine customer projects continue to develop. Across our three patient health platforms, we secured 130 new customers and 250 new programmes, two thirds of which were for non-COVID applications including nucleic acid therapeutic drugs and vaccines (such as mRNA). We expect to see an ongoing expansion in the range of applications for lipid systems in vaccines and therapeutic drugs, as this exciting Health Care technology develops through clinical trials to commercial customer product launches in the medium term.

Crop Protection delivered double-digit percentage sales growth, reflecting strong demand across crop science customers, particularly in the second half of the year. This included significant growth in sales to non-tier one customers who now represent more than 50% of revenue. By contrast, Seed Enhancement growth was subdued, with slower sales in Europe and China.

A new future for Performance Technologies

The recovery of Performance Technologies strengthened during 2021, with sales growth reflecting a recovery in industrial end markets and sustainability-driven demand across our innovative product applications. Sales grew 18% in reported terms, with underlying sales 24% higher, partly offset by adverse currency translation of 6%. Adjusted operating profit increased by 32% (and by 38% on an IFRS basis), with return on sales improving to 14.7% (2020: 13.1%), as higher sales volume positively impacted operating leverage. Second half margin was notably stronger than the prior year.

In December 2021, we agreed to sell the majority of the PTIC businesses to Cargill Inc, for an enterprise value of €915m (approximately £778m). The business to be divested accounted for 77% of PTIC's 2021 reported sales and comprises five manufacturing facilities, together with associated laboratory facilities and sales operations. We are currently working on the process to separate the two businesses, with completion expected in summer 2022. The consideration includes the sale of 100% of Croda Sipo in China, a joint venture which Croda currently manages and in which it has a 65% shareholding. If Croda's 100% ownership of Sipo cannot be realised, Sipo will be excluded from the PTIC sale, reducing the consideration by €140m. The overall divestment is subject to customary regulatory approvals but is not subject to shareholder approval. Under Cargill's ownership, the divested business and its talented workforce can look forward to a bright future.

Croda's retained business within PTIC, which accounted for 23% of 2021 sales, will form a new Industrial Specialties sector. This will play a key role supporting the Consumer Care and Life Sciences sectors. The divestment is a key step in delivering Croda's transition to a pure-play Consumer Care and Life Sciences company.

Strategy: driving growth through sustainability and innovation

As a result of the strategic moves that we have made over the last 18 months, including the acquisitions of Avanti and Iberchem, and the agreement to divest the majority of our industrial businesses, Croda is now becoming a pure-play business, focused on life science and consumer markets. These markets have reduced cyclicality, are faster growth, deliver high margins, are capital and carbon light, and leverage innovation, IP and new technologies.

In focusing on these markets, Croda is combining leadership in sustainability with market-leading innovation to deliver profitable growth. *Sustainability* trends are developing rapidly in these markets, driven by consumer demand for products which do not harm the planet and meet growing trends for clean, bio-based solutions. In addition, our customers have set their own sustainability goals and need Croda, as part of their supply chains, to deliver products created through sustainable ingredients, ethical sourcing, greater ingredient transparency and lower-carbon manufacturing. Regulatory change is also driving companies to move to Net Zero and Croda has responded by developing clear manufacturing decarbonisation plans during 2021.

Our *innovation* ecosystem sees R&D driven by increased organic investment and highly productive external innovation partnerships. We are increasing the proportion of NPP that we sell and formulate into customer products. This dynamic innovation engine enables us to both create new market niches through our novel product offerings and win business in existing markets by providing sustainable alternatives to incumbent petrochemical supply. Through innovation, we deliver our strategic objective of consistent top and bottom line growth, with profit growing ahead of sales, ahead of volume.

Delivering our sustainability Commitment

Croda was built on a heritage of using science to turn renewable raw materials into innovative ingredients. Today, our Purpose is to use *Smart science to improve lives*TM. We have made a bold Commitment to be the world's most sustainable supplier of innovative ingredients. This is both the right thing to do and also what our customers and consumers are seeking. Accelerating the transition to sustainable ingredients makes clear commercial, as well as ethical, sense. Our focus is now on execution, working in partnership with our suppliers and customers to achieve our Commitment to be Climate, Land and People Positive by 2030.

On our journey to becoming Climate Positive, in 2021 we became only the third chemical company globally to have our 1.5°C target verified by the Science Based Targets initiative (SBTi). This commits us to delivering improvements in line with the objective to limit global temperature rises to no more than 1.5°C above pre-industrial levels, the most ambitious SBTi pathway. We are supporting our site decarbonisation roadmaps through investment within our existing capital budget and by considering opportunities to decarbonise with every capital investment decision. The divestment of the majority of PTIC will make Croda less carbon intensive and we will re-baseline our Climate targets to maintain the challenge we have set. PTIC has significant use of bio-based organic raw materials and the divestment will reduce the Group's proportion of bio-based organic raw materials from 69% in 2021 (2020: 67%) to around 52% post-divestment, but we will retain our bio-based target of 75% by 2030.

In becoming Land Positive, the land saved using our crop care technologies will exceed any increase in the land used to grow our raw materials by at least double. We are also developing Nature Positive targets ready for when the future science-based target for nature is published.

In our People Positive objective, we focus on using our smart science to improve lives globally, support our communities and improve the experience of the people we employ. 2021 saw the Health Care business contribute to the development of 15 of the 24 vaccines prioritised by the World Health Organisation, including new projects for HIV and Ebola vaccines. To help our communities, in 2021 we established the Croda Foundation, providing £1m of annual funding. In addition, to reflect the progress made in our Health Care business, we made an extra funding award of £2m in 2021, to improve vaccine and health infrastructure. The first projects funded will help deliver vaccinations to over 50 million people by supporting infrastructure and training in India, Brazil and Uganda. Finally, in delivering our employee objectives, we are focused on improving inclusion and diversity, achieving both the Board gender and ethnic diversity targets of the Hampton-Alexander and Parker Reviews by the start of 2022, whilst making good progress in improving diversity and inclusion within the business.

Supporting our Climate, Land and People Positive strategy are our Fundamental objectives. We are committed to being a safe company for our employees and communities. With the inclusion of recent acquisitions into Group metrics, the Total Recordable Incident Rate ('TRIR') rose to 0.73, excluding COVID-19 cases (2020 full year: 0.58). 83 of our 105 locations had no recordable injuries during 2021 and we are working on the remainder to deliver our targeted improvement to 0.3 by 2025, which would place us towards the leading performance in our industry. During the year we also adopted an enhanced approach to process safety aligned with SASB standards for our industry, targeting a 20% reduction in the incident rate by 2025.

Driving innovation

In line with repositioning as a more knowledge-intensive company, NPP as a percentage of sales increased from 27% in 2020 to 28% in 2021 organically and 37% including lipid systems and the Iberchem and Avanti acquisitions. This significant step forward will support higher growth, improved product mix and better margins. The divestment of the majority of PTIC will further enhance our knowledge intensity.

Our innovation strategy combines internal R&D with external technology investments and partnerships, augmenting Croda's innovation centres globally with a network of over 500 academic and SME partners, working on more than 100 innovation projects. In 2021, we commenced a multi-million pound project to introduce artificial intelligence and data mining across our global R&D knowledge base and improve collaboration within our innovation ecosystem.

Innovation is focused on sustainability and, in particular, biotechnology, which will enhance the sustainability of our processes, contributing to the achievement of our target for bio-based raw materials whilst developing disruptive technologies. Our Beauty Actives business has augmented its product synthesis with 50 biotech product launches. Our

biotech expertise also leverages previous technology acquisitions, such as Enza and Nautilus, and 2021 saw investment in a new centre for biotech process design and optimisation in the UK. With innovation operating expenditure up over 50% in 2021, we are expanding the pipeline of new opportunities.

Sector strategies to deliver growth and even stronger profit margins

With the divestment of the majority of PTIC, Croda will be a Purpose-driven company focused on two attractive sectors that will deliver consistent sales growth and even stronger profit margin. Each of the two sectors comprises four businesses, all offering superior sales growth, at least one and a half times GDP. Each can deliver margins above 20% and return on invested capital (ROIC) of at least twice our cost of capital. We will target an expanded organic capital investment programme to access faster growth, supported by selective acquisitions of adjacent technologies.

Consumer Care is already recognised as the leading innovator in ingredients and fragrances for the personal care and home care markets. Our future vision is to be the global leader in sustainable solutions in these premium markets. This will be achieved by delivering sustainable ingredients, supported by performance data and ingredient transparency, and by being the leader in product formulation and application technologies.

Consumer Care is focused on high value niches in the faster growing markets of skin care, hair care, solar protection, fabric and surface care, and fragrances. Our strategy is to *Strengthen to Grow* Consumer Care, to deliver mid-single digit percentage sales growth at strong margins. This will be delivered by developing more sustainable ingredients; leveraging our capability to deliver formulation solutions; by driving innovation in premium markets, with Croda providing a 'one stop shop' to 'Indie' customers; and by expanding our presence in high growth regions, with increased investment in China, expected to drive 70% of Asian growth between 2021 and 2025.

Within Consumer Care's four businesses, this strategy is being achieved by:

- Scaling our market leadership in Beauty Actives in peptides, botanicals and biotechnology, expanding our geographic footprint and leveraging selective acquisitions;
- Strengthening *Beauty Care*, with sustainable effect ingredients and a full service formulation capability, supported by ingredient data to underpin our customers' product claims;
- Unlocking the potential of F&F, by driving the benefits of integration synergies through expanding Croda's
 presence in emerging markets and providing Iberchem with access to Croda's developed market presence, such
 as the US and Brazil, while supporting one-stop-shop formulations which combine high performance Croda
 ingredients with Iberchem's on-trend fragrances and developing more natural fragrances; and
- Accelerating Home Care in sustainable cleaning, fabric care technologies and sensory benefits.

Life Sciences is today well established as a leading supplier of delivery systems to pharmaceutical and crop science customers through high quality ingredients and unique purification and synthesis know-how. Our future vision is to become the global leader in biopharma drug delivery in Health Care, alongside our leadership in sustainable delivery systems for Crop Care. This will be achieved by delivering solutions and systems to customers; leveraging our leadership in synthesis, formulation and application technology know-how; expanding sustainable technology platforms; and increasing our expertise in complex formulation systems.

Our strategy is to *Expand to Grow* Life Sciences to deliver high single digit percentage sales growth with a strong return on sales. Within the four Life Sciences businesses, this strategy is being achieved by:

- Expanding our platforms in Patient Health. Our established speciality excipient platform provides high purity delivery systems for therapeutic drug applications, such as oncology, and is growing rapidly, providing the excipients of choice for the newest biologic drug innovations. To this we have added two new platforms vaccine adjuvants in 2018, providing the important accelerator to a range of new global vaccines; and lipid systems in 2020, the preferred solution for the developing science of nucleic acid delivery (eg mRNA), which is expected to revolutionise medical delivery in the next decade. Our strategy is to identify and acquire new platforms, and grow them organically with rapid, agile investment;
- Continuing to grow in *Consumer and Veterinary Health*, through oral care, topical application and animal health solutions:
- Innovating in *Crop Protection*. We are developing an industry-leading range of low carbon, bio-based and biodegradable delivery systems, alongside systems for next generation biopesticide delivery and crop nutrition, as the world reduces its dependence on chemical solutions; and
- Creating long-term partnerships in *Seed Enhancement*. This includes providing seed coatings and pellets that are free from micro-plastics and developing technologies to stimulate plant growth.

Deploying capital

Our transition to a pure-play Consumer Care and Life Sciences company will allow us to deploy capital into the rich seam of growth opportunities in these markets, whilst maintaining our discipline of careful capital allocation to projects which generate superior returns on capital. This will allow us to continue to scale our consumer, health and crop care technologies and deliver consistent sales growth and an even stronger profit margin. Our priority is organic capital expenditure to take advantage of the significant growth opportunities available in higher returning life science and consumer markets. This will be supplemented by selective acquisition of disruptive technologies in existing and adjacent markets to accelerate strategic delivery.

We are unlocking the value of £1.2bn of investment in the last two years in acquisitions and capacity expansion. Our preferred approach is to 'buy and build', as exemplified by our investment in Life Sciences since 2015, where we have secured new technology platforms and know-how through modest acquisition spends, such as Incotec seed enhancement, Biosector vaccine adjuvants and Avanti lipid systems, then built scale through organic investment.

In Life Sciences, drug delivery offers a significant growth opportunity, much of which can now be delivered through organic investment, although we will continue to look for additional delivery technologies to complement our three successful platforms. In addition to over £70m invested in 2021, we have committed a similar amount in future capital expenditure to reinforce our leading position in drug and vaccine systems. This investment programme will include expanding our lipid systems capability in the US and UK.

In Consumer Care, our investment focuses on expanding sustainable technologies, such as mild surfactants and innovative proteins for clothes care, to meet developing customer demand. We will also invest in increasing geographic coverage, particularly in fast growth markets, such as Asia. The sector will also benefit from investment in biotechnology and decarbonisation. This will continue to be supplemented by careful acquisition of adjacent technology bolt-ons, particularly those which can accelerate our transition to greater use of natural raw materials, an important differentiator in consumer markets.

Outlook

Growth is expected to continue in 2022 in line with our medium-term expectations. This should be supported by robust consumer demand, inflation cost recovery and the benefit of our recent investments more than offsetting moderation in customer restocking. Lipid systems sales are expected to be at a similar level to 2021. With an increasing proportion of sales coming from higher value add solutions, profit margins in Consumer Care and Life Sciences are expected to be remain strong.

The combination of our differentiated business model, healthy innovation pipeline and current investment programme are expected to underpin performance and continue to generate value for all our stakeholders.

Finance Review

Adverse impact from currency translation

The average Sterling exchange rates against the Group's key currencies strengthened during 2021 to US\$1.375 (2020: US\$1.285) and €1.164 (2020: €1.125). As a result, currency translation reduced reported currency sales by £101.6m and adjusted operating profit by £24.8m. Transactional currency impact is correlated with translation, given that the UK is a meaningful centre of production for the Group, with the strength of Sterling having an adverse impact on margins.

Strong sales from organic growth and acquisition

Sales grew by 35.9% to £1,889.6m (2020: £1,390.3m), comprising underlying growth of 26.3% and a first-year acquisition benefit of 16.9%, partly offset by adverse currency translation of 7.3%. Volume was 8.9% higher than prior year and sales price/mix rose by 17.4%, reflecting successful recovery of raw material cost increases, together with a better product mix.

Full ve	ar and	ad 31 I	Decembe	r

							2020
Sales	2021						restated
Odico	£m	Price/mix	Volume	Acquisition	Currency	Change	£m
Consumer Care	763.0	12.8%	5.2%	34.9%	(8.3)%	44.6%	527.8
Life Sciences	572.3	34.9%	5.5%	13.1%	(7.7)%	45.8%	392.5
Performance Technologies	439.5	11.0%	12.5%	-	(5.9)%	17.6%	373.6
Industrial Chemicals	114.8	14.6%	10.3%	-	(5.8)%	19.1%	96.4
Group	1,889.6	17.4%	8.9%	16.9%	(7.3)%	35.9%	1,390.3

Sales performance was excellent across all sectors, augmented by raw material cost recovery. Consumer Care sales increased by 44.6%, supported by a return to strong volume growth. Life Sciences sales increased by 45.8%, with growth across all markets and sales of approximately US\$200m from the lipid systems platform, primarily to our principal vaccine customers. With volume growth in industrial end markets, Performance Technologies sales increased by 17.6%, whilst a recovery in commodity prices saw Industrial Chemicals sales 19.1% higher. Overall, year-on-year growth was slightly lower in the second half year, due to a softer first half comparator when COVID-19 had its biggest impact in 2020.

	First Half	Second Half	Full Year
2021 sales growth	%	%	%
Consumer Care	46.2	43.1	44.6
Life Sciences	61.5	32.5	45.8
Performance Technologies	14.7	20.8	17.6
Industrial Chemicals	12.6	25.3	19.1
Group	38.8	33.2	35.9

Underlying sales were 18% ahead of 2019 (excluding sales of lipid systems introduced since 2019, to provide a better basis of comparison), demonstrating significant growth against pre-pandemic levels. Consumer Care, Life Sciences and Performance Technologies were all up double-digit percentage on 2019.

Underlying sales growth (excluding lipid systems)	% change 2021 vs. 2019
Consumer Care	17.3
Life Sciences	23.6
Performance Technologies	15.9
Industrial Chemicals	8.0
Group	17.7

Record profit and margin delivered

2021 saw the most significant upward movement in raw material prices for over a decade, with our average basket of raw materials in the underlying business up 17% across the year. Croda's operating model is to recover such increases as they occur and this has been delivered overall, despite a small lag in recovery in F&F, where the business model differs from Croda's traditional model. Alongside a strengthening product mix as we grew in higher value niches, this resulted in an improvement of 17% in sales price/mix.

2021 also saw significant volume recovery globally, up 9% in underlying terms, as consumer demand returned as COVID impacts eased and customers restocked. Combined with global supply chain disruption affecting many industries, including a shortage of freight containers and delays accessing ports, together with new UK/European trading procedures post-Brexit and higher COVID-related absenteeism, maintaining customer service came under some stress and we increased tactical inventory volume to alleviate delays and protect customer supply. With volume growth moderating

towards the end of the year, service levels improved. Our Brexit preparation plans were implemented smoothly and successfully.

2021 included a significantly higher remuneration incentive charge than the prior year, reflecting bonus and share-based payment costs due to the enhanced profit and share price performance; this reduced year-on-year margin by two percentage points. Despite these headwinds, Croda achieved a record profit and return on sales in 2021.

	2021			2020		
	IFRS	Adjustments	Adjusted	IFRS	Adjustments	Adjusted
	£m	£m	£m	£m	£m	£m
Sales	1,889.6	-	1,889.6	1,390.3	-	1,390.3
Cost of sales	(950.7)	-	(950.7)	(758.2)	-	(758.2)
Gross profit	938.9	-	938.9	632.1	-	632.1
Operating costs	(500.7)	(30.4)	(470.3)	(342.1)	(29.6)	(312.5)
Operating profit	438.2	(30.4)	468.6	290.0	(29.6)	319.6
Net interest charge	(26.7)	(3.3)	(23.4)	(20.5)	(1.5)	(19.0)
Profit before tax	411.5	(33.7)	445.2	269.5	(31.1)	300.6
Tax	(88.7)	5.7	(94.4)	(67.9)	4.5	(72.4)
Profit after tax	322.8	(28.0)	350.8	201.6	(26.6)	228.2

IFRS operating profit increased by 51.1% to £438.2m (2020: £290.0m).

The charge for adjusting items before tax was £33.7m (2020: £31.1m). In common with many companies, Croda identifies adjusting items as amortisation of intangible assets arising on acquisition, together with exceptional items, which require separate disclosure by virtue of their size or incidence. The charge for amortisation of intangible assets before tax increased to £34.3m (2020: £13.6m), reflecting the impact of recent acquisitions. The net credit on exceptional items before tax was £0.6m (2020 charge: £17.5m), comprising a gain on pensions of £11.2m (arising from transfer of the Dutch scheme to a collective defined contribution arrangement); a gain on contingent consideration of £6.2m related to previous acquisitions; a charge for business acquisition and disposal costs of £13.5m, principally relating to the sale of the majority of PTIC; and a charge for the unwind of the discount on contingent consideration of £3.3m. Excluding these adjusting items, adjusted operating profit increased by 46.6% to £468.6m (2020: £319.6m), reflecting higher sales and margin. Return on sales improved to 24.8% (2020: 23.0%).

With the adjusted net interest charge increasing to £23.4m (2020: £19.0m), including the write-off of a loan to a technology investment, adjusted profit before tax increased by 48.1% to £445.2m (2020: £300.6m). IFRS profit before tax increased by 52.7% to £411.5m (2020: £269.5m).

The effective tax rate on adjusted profit reduced to 21.2% (2020: 24.1%). This benefitted from a one-off settlement of a previous uncertain tax position; we expect the future tax rate to be around 25%. The impact of the divestment of the majority of PTIC on the future tax rate is expected to be immaterial. There were no other significant adjustments between the Group's expected and reported tax charge based on its accounting profit. With an increase in shares in issue following the equity placing to acquire Iberchem in late 2020, IFRS basic earnings per share (EPS) were 230.0p (2020: 155.1p) and adjusted basic EPS increased by 42.5% to 250.0p (2020: 175.5p).

Profit performance was strong across all sectors, led by Life Sciences where adjusted operating profit was up 67.5%, reflecting sales growth and an improvement in product mix towards higher value add niches. Consumer Care adjusted operating profit rose 28.7%, strengthening in the second half year with continued growth and mix improvement in its Personal Care business. Performance Technologies benefitted from the recovery in demand, with higher volume positively impacting operating leverage, resulting in adjusted operating profit 31.9% higher. Industrial Chemicals enjoyed significantly better profit due to improved commodity pricing.

	2021			20		
	IFRS Ac	djustments	Adjusted	IFRS A	Adjusted	
Operating profit	£m	£m	£m	£m	£m	£m
Consumer Care	168.0	(20.5)	188.5	133.0	(13.5)	146.5
Life Sciences	201.0	(7.5)	208.5	112.3	(12.2)	124.5
Performance Technologies	62.7	(1.8)	64.5	45.3	(3.6)	48.9
Industrial Chemicals	6.5	(0.6)	7.1	(0.6)	(0.3)	(0.3)
Group	438.2	(30.4)	468.6	290.0	(29.6)	319.6

Underlying growth across the sectors added £116.0m to adjusted operating profit, acquisitions within the first year of ownership contributed £57.8m and currency represented a £24.8m headwind.

		Full year ended 31 December						
Adjusted profit	2021 £m	Underlying growth £m	Acquisition impact £m	Currency impact £m	2020 restated £m	Change		
Consumer Care	188.5	27.8	26.0	(11.8)	146.5	28.7%		
Life Sciences	208.5	62.5	31.8	(10.3)	124.5	67.5%		
Performance Technologies	64.5	17.9	-	(2.3)	48.9	31.9%		
Industrial Chemicals	7.1	7.8	-	(0.4)	(0.3)	-		
Operating profit	468.6	116.0	57.8	(24.8)	319.6	46.6%		
Net interest	(23.4)				(19.0)	23.2%		
Profit before tax	445.2				300.6	48.1%		

Impact of the divestment of the majority of PTIC

On 22 December 2021, the Group announced an agreement to divest the majority of the PTIC business and is currently working with the acquirer on the process to separate the acquired activities from the Group. With completion of the divestment expected in summer 2022, this transaction had no impact on the Group's reported results for 2021, except for costs incurred reported as an exceptional item. In these 2021 results, PTIC revenue totalled £554m (2020: £470m) and adjusted operating profit was £72m (2020: £49m). Taking account of the value to be retained by Croda under future supply agreements for products to be manufactured at Croda sites and supplied to the acquirer, together with dis-synergy costs remaining with Croda which were previously allocated to the divested business, the estimated impact of the divestment on Croda's reported 2021 results, had it occurred at the start of 2021, would have been to reduce revenue by £361m (2020: £298m) and adjusted operating profit by £59m (2020: £36m).

Lower free cash flow reflecting higher investment and demand growth

Free cash flow reduced to £153.6m (2020: £176.9m) as a result of higher working capital and increased capital investment. Working capital rose by just over £100m due to increased raw material costs and selling prices, higher sales volumes and tactical increases in inventory to mitigate global distribution challenges. The impact of higher pricing and sales volume (at constant working days cover) accounted for approximately £69m of the increase with the balance reflecting tactical increases.

	Full year ended	31 December
Cash flow	2021 £m	2020
		£m
Adjusted operating profit	468.6	319.6
Depreciation and amortisation	79.0	68.2
EBITDA	547.6	387.8
Working capital	(102.5)	(2.3)
Net capital expenditure	(158.5)	(121.0)
Payment of lease liabilities	(14.4)	(7.6)
Non-cash pension expense	11.2	7.7
Interest & tax	(129.8)	(87.7)
Free cash flow	153.6	176.9
Dividends	(132.5)	(115.9)
Issue of new equity	-	615.5
Acquisitions	(58.8)	(869.7)
Other cash movements	19.0	(26.6)
Net cash flow	(18.7)	(219.8)
		007.3
Net movement in borrowings	37.6	237.3
Net movement in cash and cash equivalents	18.9	17.5

Capital investment increased to £158m (2020: £121m), reflecting the start of a programme to reinvest proceeds from the divestment of the majority of PTIC to unlock growth opportunities in Consumer Care and Life Sciences. This is creating new technology platforms and expanding existing capacity to drive superior future growth. This organic expansion is supported by selected inorganic acquisition opportunities, with 2021 seeing £59m invested in new platforms, with Parfex in fine fragrances and Alban Muller in natural Beauty Actives. Together, this organic and inorganic investment reflects elements 1 and 3 of the Group's capital allocation policy, 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. The full year dividend has been raised by 10% to 100.0p (2020: 91.0p), being 40% of adjusted earnings;

- 3. **Acquire disruptive technologies** to supplement organic growth, target a number of exciting technology acquisitions in existing and adjacent markets, strengthening Consumer Care and expanding Life Sciences; and
- 4. Maintain an appropriate balance sheet and return excess capital maintain an appropriate balance sheet to meet future investment and trading requirements, 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. At 31 December 2021, the leverage ratio was 1.4x (31 December 2020: 1.8x) and is expected to fall below 1x on completion of the disposal of the majority of PTIC, pending completion of the reinvestment programme.

We expect to continue with the current accelerated capital reinvestment and acquisition programmes over the next three years, given the strong demand environment and range of growth and technology opportunities in Consumer Care and Life Sciences.

The post-tax ROIC was broadly flat at 14.2% (2020: 14.6%). Despite a significant increase in average invested capital due to the annualisation of 2020 acquisition activity, the growth in adjusted operating profit net of tax resulting from these investments, together with underlying growth, broadly offset this. ROIC continues to be more than twice the Group's cost of capital.

Closing net debt was £823.2m (31 December 2020: £800.5m). The Group has a strong balance sheet with its material debt maturities falling due between 2023 and 2030, and the primary bank revolving credit facility extended during the year to 2026. As at 31 December 2021, the Group had committed funding in place of £1,225.8m, undrawn committed facilities of £334.4m and £112.8m in cash.

As part of the annual review of going concern, the Group conducts a series of scenario tests for different economic environments. In 2021, Group sales and profit performed well ahead of the base case scenario evaluated in February 2021, whilst cash generation was broadly similar.

Retirement benefits

The post-tax asset on retirement benefit plans at 31 December 2021, measured on an accounting valuation basis under IAS19, improved to £5.8m (31 December 2020: £25.3m liability), primarily due to higher discount rates and the transfer of the Dutch scheme to a collective defined contribution arrangement. This new arrangement is accounted for as a defined contribution scheme as the Group pays a fixed rate of contributions and members are paid pensions with variable increases. The triennial actuarial valuation of the largest pension plan, the UK Croda Pension Scheme, was performed as at 30 September 2020 and indicated that the scheme was 101% funded on a technical provisions basis. Consequently, no deficit recovery plan is required. The Group has discussed with the Trustee the impact on the scheme of the planned divestment of the majority of PTIC and no changes to funding are anticipated as a result.

Sector Performance Review

Building a stronger Consumer Care

Consumer Care comprises Croda's leading global position in Personal Care, F&F and Home Care. After a challenging period for the top-line in 2019 and a COVID-impacted 2020, the Personal Care business returned to good sales growth in 2021, delivered with a strong margin. This was led by our innovative, high value Beauty Actives business, supported by a resurgence in consumer demand in the heritage Beauty Care division, with total Personal Care underlying sales 15% above 2019's pre-pandemic level and return on sales of 30%. Alongside Personal Care, the Home Care business saw excellent demand for its innovative fabric care ingredients. Iberchem has proven to be an excellent acquisition, with innovation at the heart of its business, offering customers in personal and household care applications on-trend fragrances, particularly for emerging markets.

Consumer Care delivered an excellent sales performance, up 45% in reported terms to £763.0m (2020: £527.8m). Underlying sales were 18% higher, supplemented by 35% growth from acquisitions and partly offset by adverse currency translation of 8%. Within underlying growth, price/mix was 13% higher, reflecting growth in higher value products and recovery of raw material price increases, with volume 5% higher.

IFRS operating profit increased by 26% to £168.0m (2020: £133.0m). Adjusted operating profit increased by 29% to £188.5m (2020: £146.5m). Return on sales declined to 24.7% (2020: 27.8%), reflecting the dilution impact from F&F, which operates at structurally lower margins than Personal Care.

2021 business performance

After recovering in the second half of 2020 from the impacts of the first COVID-19 global lockdown, demand from Personal Care customers strengthened during the first half year, particularly in luxury and premium markets. This was driven by resurgent consumer demand, which continued through the balance of the year. Customers also increased their short-term stockholding. This growth benefitted our Beauty Actives business, the leading innovator in the global skin care market. Beauty Care also saw good growth in its ingredients for sun care, cosmetics and hair care markets, alongside continued demand for 'at home' use products. Innovation is focused on natural ingredients and biotechnology to meet growing consumer demand, with Beauty Actives launching AmeyezingTM, a biodegradable product with its origins in wild ginger that improves the appearance of dark eye circles. Beauty Care and Home Care leveraged sustainability through the bio-based ECO surfactants plant in the US, which enables delivery of sustainable ingredients that deliver identical performance to petrochemical peers.

Iberchem and Parfex have proven to be excellent acquisitions. The integration of Iberchem, which has more than 80% of sales in emerging markets, is on track to deliver nearly €50m of annualised revenue synergies by 2025, principally through leveraging the combined global sales network. Integration has focused on realising these revenue synergies and helping to transition raw materials onto a more sustainable basis. Ten target countries have been identified for revenue synergies, including the United States and countries in Asia, leveraging Croda's sales team presence. In Brazil, a new Iberchem business and R&D laboratory have been established at the Croda site. Iberchem has launched new product lines that are Ecocert-accredited as environmentally friendly and socially conscious, as well as biodegradable. Overall F&F sales grew double digit percentage, despite the impacts of COVID being more pronounced in emerging markets, with their lower vaccination protection rates.

Strengthen to grow in Consumer Care

Consumer Care is focused on high value niches in faster growing markets, where sustainability and innovation are key differentiators. NPP as a percentage of sales grew to 44% (2020: 38%). Our strategy is to *Strengthen to Grow* Consumer Care to deliver mid-single digit percentage growth (before raw material cost recovery) at strong margins. We are achieving this by embracing biotechnology, in addition to chemistry, to develop more sustainable ingredients, by leveraging our world class reputation for formulation expertise to become a full solution provider in premium markets, and by expanding our presence in key technology adjacencies and in high growth regions, particularly Asia.

Organic investment in Consumer Care is focused on expanding sustainable technologies, such as mild surfactants and innovative proteins for clothes care, to meet accelerating customer demand. The sector is benefitting from investment in biotechnology and decarbonisation, both of which help reduce 'scope 3' carbon emissions in our customers' supply chains. We supplemented organic investment with the acquisition of two businesses which accelerate our transition to more natural raw materials, an important differentiator in consumer markets. In March, we acquired natural actives specialist Alban Muller for €25m, expanding our portfolio of natural ingredients in our global leading Beauty Actives business. In June, we completed the acquisition of Parfex for €45m. This acquisition increases Iberchem's sustainable fragrance offerings and reinforces Iberchem's superior growth profile with greater access to fine fragrances.

The four Consumer Care businesses each has a clear growth strategy. Beauty Actives is the leader in premium skin active markets, developing critical ingredients based on its expertise in peptides, botanicals and biotechnology. We have introduced our successful French botanical ingredients to China, where consumers have a long-standing preference for plant-based beauty products. We will continue to invest in China, building on excellent sales in 2021, enabled by investment in sales, innovation and leveraging tighter regulation of active ingredient claims.

Growth in Beauty Care is being driven by sustainability, with technologies such as vegan-friendly hair care ingredients and bio-based surfactants displacing petrochemical alternatives from competitors. We are developing the highly differentiated parts of the portfolio, such as our inorganic UV filters for sun protection. We have invested in additional capacity to deliver sulfate-free surfactants to meet consumer demand for 'clean beauty' products.

In F&F, we are targeting to continue delivering faster growth from emerging market exposure, supplemented by significant integration synergies and servicing the needs of smaller customers with a one-stop-shop approach, combining Croda's critical ingredients with Iberchem's on-trend fragrances. We will continue to invest in F&F, with a new creation centre for fine perfumery and natural fragrances at Parfex in France, by using bio-based solvents in production processes and through an R&D programme to develop next generation fragrances through biotechnology.

We are unlocking the growth potential of our Home Care business in fabric care and hygiene applications, with technologies that are highly differentiated by their sustainability credentials. The business delivered a 50% increase in sales of ECO surfactants to Home Care customers. We also commissioned additional capacity to deliver Coltide Radiance to a multinational customer for the relaunch of its fabric conditioner brand, together with protein technologies to other customers to extend the life of clothes.

Rapid expansion in Life Sciences

Life Sciences delivered significant sales, profit and margin growth in 2021. It is leveraging in-house developed and acquired technologies, building scale for the delivery of customers' drug, vaccine and crop science products. It is moving into faster growth, higher value/lower volume niches. The highest growth in 2021 was seen in Health Care, with reported sales up 80% year-on-year, driven by our focus on patient health platforms. Crop Protection delivered double digit percentage growth, reflecting strong demand from crop science customers. By contrast, the overall performance of Seed Enhancement was subdued.

Sales grew 46% in reported terms to £572.3m (2020: £392.5m). Underlying sales were over 40% higher, supplemented by over 13% growth from acquisition and partly offset by adverse currency translation of 8%. Within underlying growth, price/mix was 35% higher, reflecting growth in higher value products, with volume 5% higher.

IFRS operating profit increased by 79% to £201.0m (2020: £112.3m). Adjusted operating profit increased by 67% to £208.5m (2020: £124.5m). Return on sales increased to 36.4% (2020: 31.7%). As noted at the half year, achieving this level of growth and profit improvement in such a short period has placed significant demands on the business and, as anticipated, the margin level moderated in the second half of the year as we invested in additional people and brought new capacity on stream to future-proof this growth, in addition to a mix impact from increased Crop Protection sales in the period.

2021 business performance

Health Care benefitted from the first full year of ownership of Avanti. This has exceeded expectations since its acquisition in August 2020 with its sales more than doubling over its full year 2020 performance. It has grown sales for clinical research delivery systems with its pharmaceutical R&D customer base. In addition, its in-house production of lipid systems components for COVID-19 vaccine applications has been supported by sales from Croda's UK lipid facility, which worked with Avanti in 2020 to support the world's first COVID vaccines. Croda's total lipid systems sales in 2021 were approximately US\$200m, primarily to our principal vaccine customers, accompanied by a rapidly building future sales pipeline of other nucleic acid applications.

Health Care's established patient health care platforms in speciality excipients and vaccine adjuvants also enjoyed strong growth in 2021, with underlying sales up over 40%. Alongside COVID-driven demand for therapeutic drugs and vaccines, this reflected strong demand for speciality excipients in biologic drugs, and for adjuvants for new vaccines and global expansion of existing protection, particularly in the developing world.

Within Crop Care, Crop Protection delivered robust sales growth as a result of strong demand, inflation recovery and continued diversification of its customer base. Seed Enhancement delivered a good performance in Latin America, driven by continued good sales growth for field crops, but demand was constrained for vegetables.

Expand to grow in Life Sciences

We have established Life Sciences as a high value solution provider to pharmaceutical and crop customers. Our strategy is to Expand to Grow Life Sciences to deliver high single digit percentage organic sales growth with a return on sales well above 30%. We are deploying more capital into Life Sciences to develop sustainable solutions in our crop care businesses and to build a broad-based drug delivery business of global scale. We are also strengthening innovation, through technology acquisition and organic development. In 2021, NPP as a percentage of Life Sciences sales was 48% (2020: 27%), driven by the Avanti acquisition and the growing proportion of sales from higher value add technologies.

Within Life Sciences, the four businesses – Patient Health, Consumer and Veterinary Health, Crop Protection, and Seed Enhancement – each has a clear growth strategy. Patient Health offers the most significant global opportunity for growth, much of which can be delivered through organic investment. We are leveraging our unique purification and synthesis know-how by investing in people resource, R&D and operational scale up to become a leader in biopharma drug delivery across nucleic acids, proteins and vaccine adjuvancy. This builds on our significant progress to date, including meaningful sales of novel technologies, such as non-aluminium vaccine adjuvants and lipids for non-COVID-19 nucleic acid applications.

In 2021, we invested over £70m to scale up manufacturing capacity for our three patient health care platforms, reinforcing our leading positions in drug and vaccine delivery systems. Through recent investment, we have doubled our capacity for vaccine adjuvants at our GMP facility in Denmark, for speciality excipients at our US site, and for lipid systems capacity in the Avanti, US and Croda, UK facilities. In addition, we have committed a similar amount in further investment in these platforms. Whilst we are currently serving strong demand for emergency COVID-19 applications, this new capacity will increasingly unlock future opportunities in new mRNA and gene editing applications.

Across our three patient health technologies, we secured 130 new customers and 250 new programmes, two thirds of which were for non-COVID applications. We started working on 90 new COVID-19 projects, bringing the total to more than 150 in over 30 countries. 160 new non-COVID programmes included delivery of speciality excipients for oncology and immunosuppressant applications, support to the development of HIV and Ebola vaccines prioritised by the World Health Organisation, and the development of lipid systems for new mRNA vaccines such as influenza. We expect to see an ongoing expansion in the range of lipid systems for vaccines and therapeutic drugs, moving to a broader portfolio of customers and applications in the medium term.

In Consumer and Veterinary Health, we are continuing to grow in oral care, topical application and animal health solutions.

Our Crop Protection business is expanding its leading position in formulation ingredients to provide sustainable delivery systems for our crop customers. It is established as a key innovation partner to the major crop science companies and is increasing sales to medium-sized and smaller customers who now account for more than 50% of revenue. Crop Protection already provides low carbon, bio-based and biodegradable delivery systems, and is developing systems for next generation biopesticides and biostimulants that use microbials and RNA. Similarly, sustainability trends are driving Seed Enhancement, where we have secured our first commercial customers for seed coatings that are free from microplastics. It is also developing seed enhancement technologies that stimulate plant growth.

Performance Technologies

Performance Technologies continued to strengthen throughout 2021. Sales growth reflected increased demand across automotive, packaging and industrial end markets. Margin also improved through improved product mix and the benefit of increased volume on operating leverage within the sector. Smart Materials delivered strong sales across its broad range of application markets, including markets which benefitted during COVID lockdowns, such as packaging. 2021 also saw a rapid recovery in Energy Technologies markets. Significant raw material cost inflation was fully recovered through selling prices.

Sales grew by 18% in reported terms to £439.5m (2020: £373.6m). Underlying sales were 24% higher, partly offset by adverse currency translation of 6%. Within underlying growth, price/mix was 11% higher, reflecting recovery of raw material cost increases and greater contribution from higher value products, with volume 13% higher as sales recovered post-pandemic.

IFRS operating profit increased by 38% to £62.7m (2020: £45.3m). Adjusted operating profit increased by 32% to £64.5m (2020: £48.9m). Return on sales increased to 14.7% (2020: 13.1%). Second half margin performance was notably stronger than prior year, reflecting the benefit of operating leverage and growth in higher value-add niche markets.

Against the backdrop of a rapid recovery in industrial and technology markets, as well as rising raw material costs, demand grew strongly across both businesses, accentuated by customer inventory build in the first half year. Croda's demand outpaced the broader market recovery, due to greater exposure to higher growth niche markets and next-

generation applications, such as electric vehicles. Smart Materials continued to benefit from good sales for packaging, circular plastic and other polymer applications, delivering a 22% increase in underlying sales over 2020 and well ahead of pre-pandemic levels. The progressive recovery in industrial and automotive markets saw Energy Technologies grow underlying sales by 26%, to recover to pre-pandemic levels. Overall NPP sales grew in absolute terms and were broadly stable as a proportion of total Performance Technologies sales, at 18% (2020: 19%).

Industrial Chemicals

Industrial Chemicals has continued to support the overall performance of Croda's three principal sectors. After a period of lower sales reflecting reengineering of a number of products and processes to reduce the volume of by-products produced, which have then traditionally been sold by this sector, the product portfolio was stable and sales grew with the upsurge in global industrial demand, together with robust pricing management.

Sales grew by 19% in reported terms to £114.8m (2020: £96.4m). Underlying sales were 25% higher, partly offset by adverse currency translation of 6%. Within underlying growth, price/mix was 15% higher, reflecting higher commodity prices, with volume 10% higher. IFRS operating profit increased to £6.5m (2020: £0.6m loss). Adjusted operating profit increased to £7.1m (2020: £0.3m loss). Return on sales increased to 6.2% reflecting the benefit of operating leverage, improved product mix and higher commodity prices.

A new future in Industrial Specialties

With the agreement to divest the majority of PTIC reached in December 2021, the 23% of PTIC sales which will be retained within Croda will become the new Industrial Specialties sector. It will play a key role supporting Consumer Care and Life Sciences. It will support global site utilisation and profitability as part of Croda's integrated model in those areas of the business which are deeply embedded in Croda's regional operations, technologies and IP. Post-closing of the majority PTIC divestment, Industrial Specialties will also generate revenue and profit from a new long-term supply agreement, whereby Croda will supply certain products from its retained manufacturing sites to the acquirer.

Post-closing, the Industrial Specialties sector will focus on supplying ingredients for its existing markets including coatings, emulsion technologies, water treatment and in fibres and fabrics. It will also leverage Croda's retained technology capabilities in markets such as display technologies and electronics, and a smart formulation capability in low-emission coatings. It will continue to manage tolling agreements and co-stream product sales from our sites which arise from Consumer Care and Life Sciences production processes.

Other matters

Principal risks

The principal risks facing the Group are published annually in the Group's financial statements. Consistent with those reported in 2020, these principal risks are revenue generation in established and emerging markets; product and technology innovation and protection; digital technology innovation; delivering sustainable solutions; our people – culture, wellbeing, talent development and retention; product quality; loss of significant manufacturing site; ethics and compliance; and security of business information and networks.

In 2021 we added one new principal risk, whilst three risks have moved out of the principal list. In the light of significant programmes being driven by our strategy, we have added a further principal risk relating to management of business change. Our view is that there are three risks which are no longer considered to be principal as all are effectively managed and slow-moving. These are product stewardship and chemical regulatory compliance; ineffective management of pension fund; and supplier and raw material security.

Related party transactions

Related party transactions during the period are set out in note 11.

Croda International Plc Summary Financial Statements for the Year Ended 31 December 2021 Group Income Statement

for the year ended 31 December 2021

		2021	2021	2021	2020	2020	2020
				Reported			Reported
		Adjusted	Adjustments	Total	Adjusted	Adjustments	Total
	Note	£m	£m	£m	£m	£m	£m
Revenue	2	1,889.6	_	1,889.6	1,390.3	_	1,390.3
Cost of sales		(950.7)	_	(950.7)	(758.2)	_	(758.2)
Gross profit		938.9	_	938.9	632.1	_	632.1
Operating costs		(470.3)	(30.4)	(500.7)	(312.5)	(29.6)	(342.1)
Operating profit	2	468.6	(30.4)	438.2	319.6	(29.6)	290.0
Financial costs	3	(24.9)	(3.3)	(28.2)	(19.5)	(1.5)	(21.0)
Financial income	3	1.5	_	1.5	0.5	_	0.5
Profit before tax		445.2	(33.7)	411.5	300.6	(31.1)	269.5
Tax	4	(94.4)	5.7	(88.7)	(72.4)	4.5	(67.9)
Profit after tax for the year		350.8	(28.0)	322.8	228.2	(26.6)	201.6
Attributable to:							
Non-controlling interests		2.0	_	2.0	_	_	_
Owners of the parent		348.8	(28.0)	320.8	228.2	(26.6)	201.6
		350.8	(28.0)	322.8	228.2	(26.6)	201.6

Adjustments relate to exceptional items, amortisation of intangible assets arising on acquisition and the tax thereon. Details are disclosed in note 2.

		Pence Adjusted	Pence Reported Total	Pence Adjusted	Pence Reported Total
Earnings per 10.61p ordinary share Basic Diluted	5	250.0 249.5	230.0 229.5	175.5 175.3	155.1 154.8
Ordinary dividends paid in the year Interim Final	6		43.5 51.5		39.5 50.5

Group Statement of Comprehensive Income

for the year ended 31 December 2021

	2021	2020
	£m	£m
Profit after tax for the year	322.8	201.6
Other comprehensive income/(expense):		
Items that will not be reclassified subsequently to profit or loss:		
Remeasurements of post-retirement benefit obligations	40.6	51.3
Tax on items that will not be reclassified	(8.3)	(9.7)
	32.3	41.6
Items that may be reclassified subsequently to profit or loss:		
Currency translation	(61.1)	(15.0)
Cash flow hedging	3.7	` _
Cost of hedging reserve	(6.0)	_
Tax on items that may be reclassified	0.4	_
•	(63.0)	(15.0)
Other comprehensive (expense)/income for the year	(30.7)	26.6
Total comprehensive income for the year	292.1	228.2
Attributable to:		
Non-controlling interests	2.1	0.1
Owners of the parent	290.0	228.1
·	292.1	228.2
Arising from:		
Continuing operations	292.1	228.2
	292.1	228.2

Group Balance Sheet

at 31 December 2021

No	2021 te £m	2020 £m
Assets		
Non-current assets		
Intangible assets	7 1,271.6	1,311.7
Property, plant and equipment	8 988.1	900.8
Right of use assets	87.9	80.1
Investments	3.3	5.2
Deferred tax assets	13.5	14.5
Retirement benefit assets	9 35.3	17.6
	2,399.7	2,329.9
Current assets	440.0	0000
Inventories	443.0	302.6
Trade and other receivables	337.9	289.9
Cash and cash equivalents	112.8	106.5
La Live	893.7	699.0
Liabilities		
Current liabilities	(050.0)	(0.40.5)
Trade and other payables	(358.0)	(240.5)
Borrowings and other financial liabilities	(50.9)	(49.1)
Lease liabilities	(12.2)	(10.7)
Provisions	9 (5.5)	(6.7)
Current tax liabilities	(33.3)	(38.4)
Not support assets	(459.9)	(345.4)
Net current assets Non-current liabilities	433.8	353.6
	(704.6)	(770.0)
Borrowings and other financial liabilities Lease liabilities	(794.6)	(776.2)
	(78.3)	(71.0)
Other payables Retirement benefit liabilities	(12.3)	(27.1)
Provisions	9 (27.4) 9 (3.6)	(49.9)
Deferred tax liabilities	9 (3.6) (151.4)	(3.9) (160.3)
Deferred tax inabilities	(1,067.6)	(1,088.4)
Net assets	1,765.9	1,595.1
Net assets	1,705.9	1,595.1
Equity		
Equity Ordinary share capital	15.1	15.1
Preference share capital	1.1	1.1
Share capital	16.2	16.2
Share premium account	707.7	707.7
Reserves	1,029.2	861.9
Equity attributable to owners of the parent	1,753.1	1,585.8
Non-controlling interests in equity	1,755.1	9.3
Total equity	1.765.9	1,595.1
Total equity	1,700.9	1,000.1

Group Statement of Changes in Equity

for the year ended 31 December 2021

		Share capital	Share premium account	Other reserves	Retained earnings	Non controlling interests	Total equity
	Note	£m	£m	£m	£m	£m	£m
At 1 January 2020		15.1	93.3	34.4	718.8	7.0	868.6
Profit after tax for the year					201.6		201.6
Other comprehensive (expense)/income		_	_	(15.1)	41.6	0.1	26.6
Total comprehensive (expense)/income for the year				(15.1)	243.2	0.1	228.2
Transactions with owners:				(13.1)	243.2	0.1	220.2
Dividends on equity shares	6				(115.0)		(115.9)
	0	_	_	_	(115.9) 3.4	_	3.4
Share-based payments		_		_	3.4	_	5. 4 615.5
Issue of ordinary shares Transactions in own shares		1.1	614.4	_	(0.0)	_	
			-		(6.9)		(6.9)
Total transactions with owners		1.1	614.4		(119.4)	_	496.1
Changes in ownership interests:							
Acquisition of a subsidiary with NCI		_	_	_	_	2.2	2.2
Total changes in ownership interests						2.2	2.2
Total changes in ownership interests			_			2.2	2.2
Total equity at 31 December 2020		16.2	707.7	19.3	842.6	9.3	1,595.1
At 1 January 2021		16.2	707.7	19.3	842.6	9.3	1,595.1
Profit after tax for the year		_	_	_	320.8	2.0	322.8
Other comprehensive (expense)/income		_	_	(63.1)	32.3	0.1	(30.7)
Total comprehensive (expense)/income for the year		_	_	(63.1)	353.1	2.1	292.1
Transactions with owners:							
Dividends on equity shares	6	_	_	_	(132.5)	_	(132.5)
Share-based payments		_	_	_	12.7	_	12.7
Transactions in own shares		_	_	_	(2.4)	_	(2.4)
Total transactions with owners		_	_	_	(122.2)	_	(122.2)
Changes in ownership interests:							
Acquisition of a subsidiary with non-controlling interest		_	_	_	_	1.6	1.6
Acquisition of a non-controlling interest		_	_	_	(0.5)	(0.2)	(0.7)
Issue of share capital		_	_	_	` _	0.2	0.2
Dividends paid to non-controlling interests		_	_	_	_	(0.2)	(0.2)
Total changes in ownership interests		_	_	_	(0.5)	1.4	0.9
·					` ′		
Total equity at 31 December 2021		16.2	707.7	(43.8)	1,073.0	12.8	1,765.9
-							

Other reserves include the Capital Redemption Reserve of £0.9m (2020: £0.9m), the Hedging Reserve of £3.0m (2020: £Nii), the Cost of Hedging Reserve of £(4.9)m (2020: £Nii) and the Translation Reserve of £(4.8)m (2020: £18.4m).

Group Statement of Cash Flows

for the year ended 31 December 2021

Note	2021 £m	2020 £m
Cash flows from operating activities		
Adjusted operating profit	468.6	319.6
Exceptional items	3.9	(16.0)
Amortisation of intangible assets arising on acquisition	(34.3)	(13.6)
Operating profit	438.2	290.0
Adjustments for:	440.0	0.4.0
Depreciation and amortisation	113.3	81.8
Fair value movement on contingent consideration	(6.2)	_
Impairment	1.1	1.4
Loss on disposal and write-offs of intangible assets and property, plant and equipment	5.8	- 4.0
Net provisions charged	1.6	4.2
Share-based payments Non-cash pension expense	29.1	4.1 7.7
Share of loss of associate	0.7	1.1
Cash paid against operating provisions	(2.1)	(7.8)
Movement in inventories	(140.9)	(7.0)
Movement in receivables	(53.2)	(15.6)
Movement in payables	91.6	15.3
Cash generated by operations	479.0	375.2
Interest paid	(19.8)	(17.5)
Tax paid	(111.5)	(70.7)
Net cash generated from operating activities	347.7	287.0
		 -
Cash flows from investing activities		
Acquisition of subsidiaries, net of cash acquired	(58.1)	(868.2)
Acquisition of associates and other investments	_	(1.5)
Purchase of property, plant and equipment	(153.0)	(115.0)
Purchase of other intangible assets	(5.7)	(6.2)
Proceeds from sale of property, plant and equipment	0.2	0.2
Cash paid against non-operating provisions	(1.1)	(1.7)
Interest received	1.5	0.5
Net cash used in investing activities	(216.2)	(991.9)
Cash flows from financing activities		
New borrowings	320.2	438.7
Repayment of borrowings	(282.6)	(201.4)
Payment of lease liabilities	(14.4)	(7.6)
Issue of ordinary shares	()	615.5
Acquisition of non-controlling interest	(0.7)	-
Net transactions in own shares	(2.4)	(6.9)
Dividends paid to equity shareholders 6	(132.5)	(115.9)
Dividends paid to non-controlling interests	(0.2)	
Net cash used in financing activities	(112.6)	722.4
Net movement in cash and cash equivalents	18.9	17.5
Cash and cash equivalents brought forward	77.8	63.1
Exchange differences	(2.4)	(2.8)
Cash and cash equivalents carried forward	94.3	77.8
Cash and cash equivalents carried forward comprise:		
Cash and cash equivalents carried forward comprise: Cash at bank and in hand	112.8	106.5
Bank overdrafts	(18.5)	(28.7)
Durin Ovordiano	94.3	77.8
	34.3	11.0

Group Statement of Cash Flows continued

Reconciliation to net debt

	2021	2020
Note	£m	£m
Net movement in cash and cash equivalents	18.9	17.5
Net movement in borrowings and other financial liabilities	(23.2)	(229.7)
Change in net debt from cash flows	(4.3)	(212.2)
Loans in acquired businesses	(5.7)	_
Non-cash movement in lease liabilities	(24.1)	(47.8)
Exchange differences	11.4	7.2
	(22.7)	(252.8)
Net debt brought forward	(800.5)	(547.7)
Net debt carried forward	(823.2)	(800.5)

Notes to the Summary Financial Statements

1. Basis of preparation

The Company is a public limited company (Plc) incorporated and domiciled in the UK. The address of its registered office is Cowick Hall, Snaith, Goole, East Yorkshire DN14 9AA. The Company is listed on the London Stock Exchange. The financial information set out above does not constitute the Group's statutory financial statements for the years ended 31 December 2021 or 2020 but is derived from those financial statements. Statutory financial statements for 2020 have been delivered to the Registrar of Companies and those for 2021 will be delivered following the Company's Annual General Meeting. The auditor has reported on those financial statements; their reports were unqualified, did not draw attention to any matters by way of emphasis without qualifying their report and did not contain statements under s498(2) or (3) of the Companies Act 2006.

Going concern basis

The ongoing impact of COVID-19, and the broader consequences on the markets in which the Group operates have been considered in the preparation of the financial statements including our evaluation of critical accounting estimates and judgements which are detailed further in note 9. The consolidated financial statements have been prepared on a going concern basis which the Directors believe to be appropriate for the following reasons:

In 2021, the Group successfully extended the existing 2019 Club facility by a further year, resetting its five-year term and resulting in a maturity date of October 2026. At 31 December 2021 the Group had £1,226m of committed debt facilities available from its banking group, USPP bondholders and lease providers, with principal maturities between 2023 and 2030, of which £334.4m (2020: £378.3m) was undrawn, together with cash balances of £112.8m (2020: £106.5m).

The Directors have reviewed the liquidity and covenant forecasts for the Group's going concern assessment period covering at least 12 months from the date of approval of the financial statements. The Directors have also considered sensitivities in respect of potential downside scenarios, and the mitigating actions available, in concluding that the Group is able to continue in operation for a period of at least 12 months from the date of approving the financial statements. These sensitivities include a severe but plausible downside scenario, alongside an additional scenario considered to be severe but remote. Relative to a base case scenario, the sensitivities assume increasingly pessimistic outlooks for global demand, coupled with slower economic recoveries. In the severe downside scenario, demand falls below average 2021 levels throughout 2022 and 2023. Furthermore, both downside scenarios also assume a material increase in working capital, due to inventory build and higher customer receivables, and substantial margin erosion, predicated on a further deterioration in the economic conditions.

Based on 2021 results, reverse stress testing assesses that adjusted operating profit would need to fall by 69% to trigger an event of default, before consideration of available actions to conserve cash. The Directors do not consider this a plausible scenario. In considering the suitability of these scenarios, the Directors have considered, among other factors, the impact of the risk scenario combinations that form part of the viability statement.

In the downside scenarios, the Group continues to have significant liquidity headroom and good financial covenant headroom under its debt facilities. Excluded from the above scenario testing, the Directors have also considered the impact on the Group from the agreement to sell the majority of the Performance Technologies and Industrial Chemicals businesses for total consideration of €915m. The disposal will have a significant positive impact on Croda's leverage and liquidity in the short to medium term. The Directors are therefore satisfied that the Group has sufficient resources to continue in operation for a period of not less than 12 months from the date of approval of the financial statements. Accordingly, the consolidated financial statements have been prepared on a going concern basis.

Climate change

The Group has long recognised the scale of the climate emergency and considers this to offer both opportunities and risks in the future. The Group's current climate change strategy focuses on reducing its carbon footprint and increasing its use of bio-based raw materials, whilst the benefits in using its ingredients will enable more carbon to be saved than were emitted through operations and supply chain.

The impact of climate change has been considered in the preparation of these financial statements across a number of areas, including our evaluation of critical accounting estimates and judgements which are detailed in note 9 below. The Group will continue developing its assessment of the impact that climate change has on the assets and liabilities recognised and presented in its financial statements.

Changes in accounting policy

In preparing this financial information, management has used the principal accounting policies that will be detailed in the Group's Annual Report for 2021 and which are unchanged from the prior year.

1. Basis of preparation continued

(a) New and amended standards adopted by the Group

A number of new amendments to standards and interpretations are effective for annual periods beginning on or after 1 January 2021 and have been applied in preparing these consolidated financial statements. None of these had a significant effect on the consolidated financial statements of the Group.

(b) New standards and interpretations not yet adopted

A number of new standards and amendments to standards and interpretations are effective for annual periods beginning on or after 1 January 2022 and have not been applied in preparing the consolidated financial statements. The Group is assessing the impact of these new standards and the Group's financial reporting will be presented in accordance with these standards from 1 January 2022 or 1 January 2023 as applicable.

2. Segmental information

The Group's sales, marketing and research activities are organised into four global market sectors, being Consumer Care, Life Sciences, Performance Technologies and Industrial Chemicals. These are the segments for which summary management information is presented to the Group's Executive Committee, which is deemed to be the Group's Chief Operating Decision Maker.

There is no material trade between segments. Segmental results include items directly attributable to a specific segment as well as those that can be allocated on a reasonable basis.

	2021 £m	2020 Restated £m
Income statement		
Revenue		
Consumer Care	763.0	527.8
Life Sciences	572.3	392.5
Performance Technologies	439.5	373.6
Industrial Chemicals	114.8	96.4
Total Group revenue	1,889.6	1,390.3
Adjusted operating profit		
Consumer Care	188.5	146.5
Life Sciences	208.5	124.5
Performance Technologies	64.5	48.9
Industrial Chemicals	7.1	(0.3)
Total Group operating profit (before exceptional items and amortisation of intangible assets arising on acquisition)	468.6	319.6
Exceptional items and amortisation of intangible assets arising on acquisition	(30.4)	(29.6)
Total Group operating profit	438.2	290.0

As announced in the 2020 Annual Report the Group has revised the composition of its operating segments. Accordingly, the Group has restated the previously reported segment information for the year ended 31 December 2020 and aligned this with the information that is regularly presented to the Group's Executive Committee.

2. Segmental information continued

In the following table, revenue has been disaggregated by sector and destination. This is the primary management information that is presented to the Group's Executive Committee.

	Europe, Middle East & Africa	North America	Latin America	Asia	Reported Total
	£m	£m	£m	£m	£m
Revenue 2021					
Consumer Care	300.3	210.9	68.6	183.2	763.0
Life Sciences	266.3	167.2	60.9	77.9	572.3
Performance Technologies	209.8	102.1	22.4	105.2	439.5
Industrial Chemicals	48.9	13.0	2.4	50.5	114.8
Total Group revenue	825.3	493.2	154.3	416.8	1,889.6
Revenue 2020 (restated)					
Consumer Care	178.1	172.0	55.0	122.7	527.8
Life Sciences	164.7	113.2	54.5	60.1	392.5
Performance Technologies	177.0	90.1	20.1	86.4	373.6
Industrial Chemicals	42.6	11.7	2.0	40.1	96.4
Total Group revenue	562.4	387.0	131.6	309.3	1,390.3

Adjustments

	2021	2020
	£m	£m
Exceptional items – operating profit		
Business acquisition and disposal costs	(13.5)	(11.7)
Redundancy, restructuring and impairments	_	(4.3)
Pension curtailment gain	11.2	_
Fair value movement on contingent consideration	6.2	_
Exceptional items – financial costs		
Unwind of discount on contingent consideration	(3.3)	(1.5)
Exceptional items	0.6	(17.5)
Amortisation of intangible assets arising on acquisition	(34.3)	(13.6)
Total adjustments	(33.7)	(31.1)

The exceptional items in the current year reflects discount unwind and fair value adjustment in respect of contingent consideration, a pension curtailment gain (arising from transfer of the Dutch scheme to a collective defined contribution arrangement) and acquisition costs and fees incurred in preparation of the disposal of part of the PTIC business. Movements in contingent consideration have been presented as exceptional as they are not directly representative of the underlying business performance in the period, and therefore this presentation provides a meaningful basis to make comparisons between reporting periods. The pension curtailment gain and business acquisition and disposal costs have been presented as exceptional due to their size and one-off nature. The exceptional items in the prior year related to the delivery of cost saving actions announced in the 2019 full year results, discount unwind in contingent consideration and acquisition costs. The adjustments to operating profit relate to our segments as follows: Consumer Care £20.5m (2020: £13.5m), Life Sciences £7.5m (2020: £12.2m), Performance Technologies £1.8m (2020: £3.6m) and Industrial Chemicals £0.6m (2020: £0.3m).

3. Net financial costs

	2021	2020
	£m	£m
Financial costs		
Interest payable on borrowings	17.7	15.6
Net interest on retirement benefit liabilities	0.3	1.2
Provision against non-operating loan	2.5	_
Interest on lease liabilities	2.2	1.5
Other bank loans and overdrafts	2.2	1.2
Unwind of discount on contingent consideration	3.3	1.5
	28.2	21.0
Financial income		
Bank interest receivable and similar income	(1.5)	(0.5)
Net financial costs	26.7	20.5

4. Tax

	2021	2020
	£m	£m
Analysis of tax charge for the year		
United Kingdom current tax	11.5	13.2
Overseas current tax	95.0	52.1
Deferred tax	(17.8)	2.6
	88.7	67.9

The adjusted effective corporate tax rate before exceptional items of 21.2% (2020: 24.1%) is higher that the UK's standard tax rate of 19.0%. The reported effective corporate tax rate after exceptional items is 21.6% (2020: 25.2%). This year's tax charge benefitted from a one-off settlement of a previous uncertain tax position.

5. Earnings per share

	2021	2020
	pence	pence
Adjusted earnings per share	250.0	175.5
Impact of exceptional items, amortisation of intangible assets arising on acquisition and the tax thereon	(20.0)	(20.4)
Basic earnings per share	230.0	155.1

6. Dividends paid

	Pence per share	2021 £m	Pence per share	2020 £m
Ordinary	Silare	2111	Silaio	2111
Interim				
2020 interim, paid October 2020	_	_	39.5	50.8
2021 interim, paid October 2021	43.5	60.6	_	_
Final				
2019 final, paid May 2020	_	_	50.5	65.0
2020 final, paid June 2021	51.5	71.8	_	_
	95.0	132.4	90.0	115.8
Preference (paid June and December)		0.1		0.1
		132.5		115.9

The Directors are recommending a final dividend of 56.5p per share amounting to a total of £78.8m in respect of the financial year ended 31 December 2021. Subject to shareholder approval, the dividend will be paid on 6 June 2022 to shareholders registered on 6 May 2022. The total proposed dividend for the year ended 31 December 2021 will be 100.0p per share amounting to £139.4m.

7. Intangible assets

	2021	2020
	£m	£m
Opening net book amount	1,311.7	445.3
Exchange differences	(54.6)	2.3
Additions	5.7	6.3
Acquisitions	48.4	873.3
Disposals, write offs and reclassifications	(2.6)	0.2
Amortisation charge for the year	(37.0)	(15.7)
Closing net book amount	1,271.6	1,311.7

8. Property, plant and equipment

Exchange differences Additions Acquisitions 153.0 Acquisitions 13.0 Disposals, write offs and reclassifications (12.4) (12.4) (13.0) (13.0) (13.0)		2021	2020
Exchange differences (12.4) (1 Additions 153.0 1 Acquisitions 13.0 5 Disposals, write offs and reclassifications (3.2)		£m	£m
Additions 153.0 17 Acquisitions 13.0 5 Disposals, write offs and reclassifications (3.2)	Opening net book amount	900.8	805.2
Acquisitions 13.0 Significant by the offs and reclassifications (3.2)	Exchange differences	(12.4)	(13.1)
Disposals, write offs and reclassifications (3.2)	Additions	153.0	115.0
	Acquisitions	13.0	50.9
Depreciation charge for the year (63.1)	Disposals, write offs and reclassifications	(3.2)	(0.6)
	Depreciation charge for the year	(63.1)	(55.5)
Impairments –	Impairments	_	(1.1)
Closing net book amount 988.1 90	Closing net book amount	988.1	900.8

9. Critical accounting judgements and key sources of estimation uncertainty

The Group's significant accounting policies under UK-adopted international accounting standards have been set by management with the approval of the Audit Committee. The application of these policies requires estimates and assumptions to be made concerning the future and judgements to be made on the applicability of policies to particular situations. Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

Under UK-adopted international accounting standards an estimate or judgement may be considered critical if it involves matters that are highly uncertain or where different estimation methods could reasonably have been used, or if changes in the estimate that would have a material impact on the Group's results are likely to occur from period to period.

The critical accounting judgement required when preparing the Group's accounts is as follows:

Business disposal

The Group has signed an agreement to sell the majority of its Performance Technologies and Industrial Chemicals businesses. Whilst completion of the sale is considered highly probable, the Group's assessment that the disposal group is not available for sale in its present condition is a key judgement in determining that the disposal group is not classified as an asset held for sale at 31 December 2021. The divested business, comprising five manufacturing facilities, together with associated laboratory facilities and sales operations, currently forms part of Croda's integrated operating model and work is ongoing to separate the disposal group, with completion of the transaction expected in Summer 2022.

The critical accounting estimates and assumptions required when preparing the Group's accounts are as follows:

Post-retirement benefits

The Group's principal retirement benefit schemes are of the defined benefit type. Year end recognition of the liabilities under these schemes and the valuation of assets held to fund these liabilities require a number of significant assumptions to be made, relating to key financial market indicators such as inflation and expectations on future salary growth and asset returns. These assumptions are made by the Group in conjunction with the schemes' actuaries and the Directors are of the view that any estimation should be appropriate and in line with consensus opinion.

The majority of the remeasurement gain in the period relates to the following key actuarial assumptions on the Group's UK pension scheme; discount rate 1.8% (2020: 1.3%) and inflation 3.2% (2020: 2.8%). During the period the Group's primary Netherlands scheme was converted into a collective defined contribution scheme for both past and future service, as allowed under local regulations and as agreed with the representative trade unions. This change resulted in the settlement of the defined benefit scheme's assets and liabilities and a corresponding curtailment gain of £11.2m on cessation of defined benefit accrual, which has been recognised in the Group Income Statement. All parties had formally agreed to the settlement by 30 November 2021, therefore the settlement accounting is based on the valuation of the scheme assets and liabilities at this date. Under the new scheme, employer contributions have been fixed for the next two years initially, and the level thereafter will be subject to agreement with employees and the trade unions. The employer is not exposed to demographic and financial risks, as the benefits provided will be those that can be afforded by the scheme only, without recourse to the employer, therefore this scheme is accounted for as a defined contribution scheme.

9. Critical accounting judgements and key sources of estimation uncertainty continued

	2021	2020
	£m	£m
Opening net retirement benefit deficit	(32.3)	(75.0)
Current service cost	(25.1)	(23.5)
Net interest cost	(0.3)	(1.2)
Employer contributions	13.6	15.4
Benefits paid	0.3	0.4
Past service cost	11.2	_
Remeasurements	40.6	51.3
Acquisitions	(0.9)	_
Exchange movement	0.8	0.3
Closing net retirement benefit surplus/(deficit)	7.9	(32.3)
Total market value of assets	1,340.1	1,536.8
Present value of scheme liabilities	(1,318.7)	(1,554.0)
Net pension plan asset/(liability)	21.4	(17.2)
Post-employment medical benefits	(13.5)	(15.1)
Net retirement benefit surplus/(deficit)	7.9	(32.3)
		`
Analysed in the balance sheet as:		
Retirement benefit assets	35.3	17.6
Retirement benefit liabilities	(27.4)	(49.9)
Net retirement benefit surplus/(deficit)	7.9	(32.3)
. , ,		

Goodwill impairment

Management are required to undertake an annual test for impairment of indefinite lived assets such as goodwill. Accordingly, the Group tests annually whether goodwill has suffered any impairment and the Group's goodwill value has been supported by the fair value less cost to sell or detailed value in use calculations relating to the recoverable amounts of the underlying Cash Generating Units ('CGUs'). These value in use calculations require the use of estimates to enable the calculation of the net present value of cash flow projections of the relevant CGU. The critical assumptions are as follows:

- Terminal value growth in EBITDA (calculated as operating profit before depreciation and amortisation) estimated at 3% unless the profile of a particular CGU warrants a different treatment.
- Selection of appropriate market participant discount rates to reflect the risks specific to the CGU.
- Specific cash flow projections including key assumptions on revenue growth and operating margins generally over a 5 year period unless the profile of a particular CGU warrants a longer period.

Recoverable amounts currently exceed carrying values including goodwill; however, testing did identify that reasonable possible changes in key assumptions would cause the recoverable amount of the Iberchem CGUs to be less than the carrying value. For the Iberchem CGUs, the assumptions underpinning the cash flow projections used in the value in use calculation reflect delivery of the acquisition business plan, which the business remains on track to achieve in the medium to long term. The key assumptions considered by the Directors, where a reasonably possible change could give rise to an impairment, were the projection period operating profit compound average growth rates ('CAGR') (approximately 10%), terminal value growth rates (3%) and pre-tax discount rates (approximately 10.5%). If the operating profit CAGR assumptions were reduced by approximately 0.5% or the pre-tax discount rates increased by approximately 0.3%, then the CGUs' recoverable amount would be reduced to a level comparable with the carrying value. A 1% decrease in the terminal value growth rate, which, although not management's current expectation, is considered to be reasonably possible, would lead to an impairment charge of £45m. Due to the nature of the Iberchem business, including its low carbon footprint, the key assumptions were not materially impacted by the climate change risks and opportunities set out in the Annual Report.

10. Financial instruments Financial risk factors

The Group's activities expose it to a variety of financial risks; currency risk, interest rate risk, liquidity risk, and credit risk. The Group's overall risk management strategy is approved by the Board and implemented and reviewed by the Risk Management Committee. Detailed financial risk management is then delegated to the Group Finance department which has a specific policy manual that sets out guidelines to manage financial risk. Regular reports are received from all sectors and regional operating units to enable prompt identification of financial risks so that appropriate action may be taken. In the management definition of capital the Group includes ordinary and preference share capital and net debt. These summary financial statements do not include all financial risk management information; full disclosures will be available in the Group's annual financial statements for the year ended 31 December 2021.

Financial instruments measured at fair value use the following hierarchy;

- Quoted prices (unadjusted) in active markets for identical assets or liabilities (level 1)
- Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices) (level 2)
- Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) (level 3).

All of the Group's financial instruments are classed as level 2 with the exception of contingent consideration, other investments and lease liabilities, which are classed as level 3.

Fair values

For financial instruments with a remaining life of greater than one-year, fair values are based on cash flows discounted at prevailing interest rates. Accordingly, the fair value of cash deposits and short-term borrowings approximates to the book value due to the short maturity of these instruments. The same applies to trade and other receivables and payables (excluding continent consideration which is discounted using a risk-adjusted discount rate).

Where there are no readily available market values to determine fair values, cash flows relating to the various instruments have been discounted at prevailing interest and exchange rates to give an estimate of fair value.

Prior to 2016, the Group did not typically utilise complex financial instruments and accordingly the only element of Group borrowings where fair value differed from book value was the US\$100m fixed rate 10 year note that was issued in 2010. In January 2020 the existing US\$100m fixed rate ten-year note matured and was repaid, this was replaced with a new US\$100m fixed rate ten year note (27 January 2020). On 27 June 2016, the Group issued £100m and €100m of fixed rate notes. On 6 June 2019, the Group issued a further £65m, €50m and US\$60m of fixed rate notes.

The table below details a comparison of the Group's financial assets and liabilities where book values and fair values differ.

	Book value 2021 £m	Fair value 2021 £m	Book value 2020 £m	Fair value 2020 £m
US\$100m 3.75% fixed rate 10 year note	(74.1)	(78.2)	(73.2)	(82.9)
€30m 1.08% fixed rate 7 year note	(25.2)	(25.5)	(26.9)	(27.5)
€70m 1.43% fixed rate 10 year note	(58.7)	(61.5)	(62.7)	(67.0)
£30m 2.54% fixed rate 7 year note	(30.0)	(30.3)	(30.0)	(30.9)
£70m 2.80% fixed rate 10 year note	(70.0)	(71.9)	(70.0)	(75.2)
€50m 1.18% fixed rate 8 year note	(41.9)	(43.5)	(44.8)	(47.5)
£65m 2.46% fixed rate 8 year note	(65.0)	(65.7)	(65.0)	(68.9)
US\$60m 3.70% fixed rate 10 year note	(44.5)	(47.4)	(43.9)	(49.9)

11. Related party transactions

The Group has no related party transactions, with the exception of remuneration paid to key management and Directors.

12. Business combinations

On 2 March 2021, the Group acquired the worldwide business activities of Alban Muller including 100% of the shares and voting interests of Acallmi for a total consideration of £15.2m. Established in France and employing 90 people, Alban Muller specialises in eco-responsible solutions to developing innovative botanical extracts, natural formulation ingredients and natural organic cosmetics. The company is an excellent fit for Croda's Beauty Actives business (part of the Consumer Care sector) and provides Croda with access to innovative technology in the botanicals market.

On 1 June 2021, the Group acquired a 96% majority shareholding in Parfex S.A. ('Parfex'), a fine fragrance business based in Grasse, France for a total consideration of £35.4m. Employing 75 people, Parfex creates fragrances principally for premium personal care and fine perfumery markets, leveraging the natural raw materials that are available in the region. The company will form part of the newly created Fragrances & Flavours business (part of the Consumer Care sector) alongside lberchem acquired in November 2020.

The following table summarises the Directors' assessment of the consideration paid in respect of the acquisitions, and the fair value of assets acquired and liabilities assumed.

	Alban Muller	Parfex
Cash consideration	£m 15.2	35.4
Fair value of assets and liabilities acquired	10.2	33.4
· ·	0.0	40.5
Intangible assets	8.9	19.5
Property, plant & equipment	7.1	5.9
Right of use assets	1.2	0.1
Lease liabilities	(1.2)	(0.1)
Cash/(overdrafts)	1.8	(0.1)
Borrowings	(5.7)	_
Working capital	_	4.6
Retirement benefit liabilities	(0.4)	(0.5)
Deferred tax	(3.0)	(5.9)
Total identifiable net assets	8.7	23.5
Fair value of NCI	_	(1.6)
Goodwill	6.5	13.5

Total cash consideration paid in the period of £58.1m includes the above acquisitions (net of cash) of £48.9m and £9.2m of payment on contingent consideration in respect of previous acquisitions.

During the period, contingent consideration in respect of previous acquisitions has decreased by £6.2m due to fair value movements and £9.2m due to payments, increasing by £3.3m for the unwind of discounting and £0.1m for foreign exchange. Fair value movements in the year reflect the latest estimate of future revenue forecasts for applicable products. As at 31 December 2021, the undiscounted fair value of contingent consideration in respect of the Avanti acquisition was £26.9m (reported within trade and other payables), capped at a maximum remaining amount of £35.2m.

During 2021, the Group completed the fair value review relating to its 2020 acquisitions of Avanti Polar Lipids, LLC and Fragrance Spanish Topco, S.L. trading as Iberchem. This review did not identify any changes to the asset base or goodwill.