CRODA

Press Release

28 February 2023

Results for the year ended 31 December 2022

Powerful operating model and consistent execution delivers record performance

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 2022.

Highlights

	Statutory results (IFRS)			Adjusted results			
Full year ended 31 December	**2022**	2021	change	**2022**	2021	change	change constant currency
Sales (£m)	2,089.3	1,889.6	10.6%	2,089.3	1,889.6	10.6%	5.2%
Operating profit (£m)	444.7	438.2	1.5%	515.1	468.6	9.9%	5.7%
Return on sales (%)				24.7	24.8	(0.1)ppt	
Profit before tax (£m)	780.0	411.5	89.6%	496.1	445.2	11.4%	7.3%
Basic earnings per share (p)	465.8	230.0	102.5%	272.0	250.0	8.8%	
Ordinary dividend per share declared (p)	108.0	100.0	8.0%				
Free cash flow (£m)				167.4	153.6	9.0%	
Net debt (£m)				295.2	823.2	(64.1)%	

Powerful operating model and consistent execution deliver record performance

- **Sales up 11% at over £2 billion, with successful input cost inflation recovery reflecting strength of business model**
  - Growth across Consumer Care and Life Sciences, driven by price/mix 24% higher
  - Strong performance in Asia, Western Europe and Latin America
- **Adjusted operating profit up 10%, exceeding £500m for the first time**
  - Profit growth across all three sectors
  - Return on sales broadly flat at 24.7% (2021: 24.8%) - improved mix from divestment and lower remuneration charge offset by normalising Life Sciences margin and adverse operating gearing
- **IFRS profit before tax up 90% to £780.0m (2021: £411.5m), including £356.0m gain on divestment**
- **Improved free cash flow of £167.4m (2021: £153.6m), with moderating raw material prices starting to benefit working capital**
- **Increase in full year dividend of 8% to 108.0p (2021: 100.0p)**

Portfolio repositioned - aligned with emerging megatrends

- **Completed divestment of majority of Performance Technologies and Industrial Chemicals (PTIC)**
  - Creates stronger margin, higher return, less cyclical, greater IP and lower carbon intensive business
- **Reinvesting proceeds to drive future growth**
  - Enhanced organic capital investment programme, supported by government co-investment in Pharma
  - Agreed acquisition of Solus Biotech for c£232m, expanding fast growth Beauty Actives business in Asia

Robust sector performances

- **Consumer Care performance demonstrating increased resilience**
  - Record sales and adjusted operating profit delivered; encouraging growth in F&F
  - Lower second half year volume and margin, primarily due to destocking and supply constraints
- **Life Sciences building on exceptional prior year**
  - Further strong progress, driven by excellent Crop Protection performance
  - Extensive pipeline of non-Covid delivery systems driving growth in Pharma, offsetting reduction in lipid systems for Covid-19 applications

Following the divestment of the majority of our PTIC business, the retained business is now known as Industrial Specialties. The prior period has been restated to combine the PT and IC segments which were previously reported separately. The divested business did not meet the requirements to be classified as a discontinued operation. Therefore, the divested business is included for a full year within the Industrial Specialties result for 2021 and for the first half year only for 2022.

Sales	Full year ended 31 December						
	2022 £m	Price/mix	Volume	Acquisition	Currency	Change	Restated 2021 £m
Consumer Care	897.8	22.0%	(12.3)%	1.5%	6.5%	17.7%	763.0
Life Sciences	682.3	5.7%	8.2%	0.0%	5.3%	19.2%	572.3
Industrial Specialties	509.2	19.9%	(31.7)%	0.0%	3.7%	(8.1)%	554.3
Group	2,089.3	24.2%	(19.6)%	0.6%	5.4%	10.6%	1,889.6

Adjusted profit	Full year ended 31 December					
	2022 £m	Underlying growth £m	Acquisition impact £m	Currency impact £m	Restated 2021 £m	Change
Consumer Care	204.7	8.8	0.7	6.7	188.5	8.6%
Life Sciences	229.4	9.8	0.0	11.1	208.5	10.0%
Industrial Specialties	81.0	7.6	0.0	1.8	71.6	13.1%
Operating profit	515.1	26.2	0.7	19.6	468.6	9.9%
Net interest	(19.0)				(23.4)	(18.9)%
Profit before tax	496.1				445.2	11.4%

Steve Foots, Chief Executive Officer, commented:

"2022 has been a milestone year for Croda as we continued our transition to a pure play Consumer Care and Life Sciences business, evolving our portfolio to be more closely aligned to the emerging megatrends driving our markets. For the first time, we delivered over £2 billion in sales and £500 million in adjusted operating profit, reflecting progress across all areas of our business. Consumer Care is increasingly resilient, supported by encouraging growth in our F&F business, whilst Life Sciences has built on an exceptional prior year, with an exciting project pipeline in Pharma and a stand-out performance in Crop Protection.

"These record results have been achieved whilst managing a challenging environment. This demonstrates the power of our business model, our consistent execution, an increased resilience, following our recent portfolio changes, and the increasing importance of our products in our markets. We have a disciplined investment approach which is driving both organic and acquisitive growth.

"The increased depth, breadth and resilience of Croda's business and the significant opportunities that we see in our high-growth markets underpin our confidence for the year ahead."

Outlook

Though early in the year, the Group is trading in line with expectations. We expect the customer destocking that has been particularly apparent in North America to come to an end in the first half year, supporting continued sales growth this year in Consumer Care. In Life Sciences, we expect good sales growth in Crop Care and the non-Covid related Pharma business to offset the previously indicated decline in Covid-19 vaccine demand. Group performance in 2023 will be more second half weighted than in the prior year, reflecting the divestment of the majority of PTIC in June 2022 and the phasing of lipid systems shipments to our principal Covid-19 vaccine customers.

The combination of our differentiated business model, enhanced investment programme and exciting innovation pipelines in sustainable ingredients and drug delivery will continue to deliver consistent, superior returns.

Further information:

An investor presentation will be available via webcast at 0845 GMT on 28 February 2023 at www.croda.com/investors.

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Notes:

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;
    b. 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 in the first year of impact. They are used by management to measure the performance of each sector before the benefit of acquisitions are included, in order to assess the organic performance of the sector, thereby providing a consistent basis on which to make year-on-year comparisons. 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. Exceptional items are those items that in the Directors' view are required to be separately disclosed by virtue of their size or incidence. 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 gain on business disposal and impairment charges have been presented as exceptional due to their size and one-off nature. The Board believes that the adjusted presentation (and the columnar format adopted for the Group income statement) assists shareholders by providing a 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 Group Performance 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. Calculations and reconciliations are provided in the five year record of the Group's Annual Report. 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 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 calculated in line with the banking covenant definition. EBITDA is adjusted operating profit plus depreciation and amortisation. Calculations and reconciliations are provided in the five year record of the Group's Annual Report. 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;

- New and Protected Products (NPP): these are products which are protected by virtue of being either newly launched, protected by intellectual property or by unique quality characteristics. NPP is used by management to measure and assess the level of innovation across the Group.

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).

Powerful operating model and consistent execution deliver record performance

Croda achieved another milestone in 2022, exceeding £2 billion of sales and £500 million of adjusted operating profit for the first time. This continues our record of consistent execution. We successfully recovered significant input cost inflation, and navigated challenging economic conditions and continued supply chain disruption. We are building a strong innovation pipeline, supplemented by new technologies and organic investment. Our performance demonstrates the power of our business model, the benefit of our global footprint, greater resilience following recent portfolio change and the increasing importance of our products in a range of niche markets.

We delivered an 11% increase in both sales and adjusted profit before tax, with good sales and profit growth in both core sectors. Consumer Care delivered a solid performance, with sales up 18% and adjusted operating profit 9% higher, albeit with margin diluted by lower volume and change in product mix. Growth remained robust in the second half year across Asia, Europe and Latin America, partly offset by customer destocking that was particularly apparent in North America. Life Sciences built on an exceptional 2021, delivering 19% sales growth and 10% higher adjusted operating profit, despite a reduction in Covid-19 vaccine demand by our principal customers. The balance of the Pharma business, together with Crop Protection and Seed Enhancement, each delivered double digit percentage sales growth.

Adjusted operating profit was also higher in Industrial Specialties, benefitting from strong trading ahead of the divestment of the majority of its Performance Technologies and Industrial Chemicals (PTIC) business midway through the year. Through this divestment, and the acquisitions in recent years, Croda has significantly repositioned to be more closely aligned with the powerful megatrends that are reshaping our markets. We are becoming a pure play company, focused on high value niches in consumer care and life science markets. This is creating a stronger margin, higher return, less cyclical and lower carbon intensive business. We are also more knowledge intensive, with exciting customer and technology innovation pipelines, particularly in sustainable solutions and drug delivery systems. This will translate into more consistent top line growth and increased margins, delivering superior returns in the years ahead.

Managing a challenging environment

Group sales grew by 11% to £2,089.3m (2021: £1,889.6m). Constant currency sales rose by 5%, driven by our ability to recover input cost inflation, with price/mix up by 24%. The chemical industry experienced a significant impact from inflation and average prices within our raw material basket rose by 23% in 2022, adding to a 17% increase in 2021. Commodity markets remained tight during the year but prices peaked in the third quarter, with signs of modest declines as the year ended. Operating cost inflation increased during 2022, with labour and energy most impacted. The strength of Croda's business model helped manage this challenging environment, ensuring inflation recovery and profit protection.

Group sales volume declined by 20%, with an estimated 13 percentage points of the reduction due to the divestment of much of the industrials business. In addition, after strong consumer demand and customer restocking post-pandemic in 2021, volume declined by 12% in Consumer Care, reflecting capacity constraints and customer reduction of excess inventory levels. Volume in Life Sciences was 8% higher, driven by strong Crop Protection demand, supported by the robust agricultural commodity pricing environment. Across the Group, the challenge of global supply chain constraints began to ease towards the end of the year.

Adjusted operating profit grew by 10% to £515.1m (2021: £468.6m). Over half of this increase was driven by underlying growth across all three sectors, with the balance primarily from favourable currency translation. Return on sales was broadly flat at 24.7% (2021: 24.8%), with an improved margin mix from the reduced share of industrial sales and a lower variable remuneration charge offset by normalisation of the Life Sciences margin, after an exceptional 2021, and a lower Consumer Care margin diluted by lower volume and weaker mix. Profit before tax (on an IFRS basis) increased to £780.0m (2021: £411.5m), which included a gain on the business disposal of £356.0m. Adjusting for this benefit and one-off exceptional items outlined in the Finance Review, adjusted profit before tax increased by 11% to a record £496.1m (2021: £445.2m).

Inflation and supply chain challenges saw increased working capital during 2021 and the first half of 2022. As expected, this began to moderate in the second half of 2022. Free cash flow increased to £167.4m (2021: £153.6m). Net debt reduced to £295.2m (2021: £823.2m) and debt leverage reduced to 0.5x (2021: 1.4x), due principally to the proceeds from the PTIC divestment.

Reinvesting in the business

The Group successfully completed the divestment of the majority of its PTIC business to Cargill Inc. on 30 June 2022 for gross proceeds of €775m (£665m). The divestment agreement also included a €140m option to sell Croda Sipo in China in which we have a 65% stake; however, this was subject to reaching agreement with our partner to also sell its stake, which now appears unlikely to occur in the near term.

The divestment has released more capital to invest into a rich seam of growth opportunities in the consumer care and life sciences markets, whilst maintaining our discipline of careful capital allocation to projects which generate superior returns on capital. Our priority is organic capital expenditure, supplemented by targeted acquisitions, in line with our preferred approach to 'buy and build', as exemplified by our recent investments in Life Sciences, where we have secured new technology platforms through modest acquisition spends, then built scale through organic investment.

Our investment in organic capital expenditure was £138.5m (2021: £158.5m). This investment included a new Fragrances and Flavours (F&F) operation in Brazil, expansion in protein technology in Consumer Care and new laboratory capabilities in Life Sciences, together with additional capacity in our Singapore plant and initial work on a new greenfield manufacturing site in India which will together meet fast growing demand in Asia. In addition to our typical capital investment of around 6% of sales, which includes delivering our carbon reduction roadmaps as part of our sustainability commitment, we are investing an extra £175m over the period 2021 to 2024 to broaden our Pharma footprint and capabilities, particularly for nucleic acid drugs. We are investing in our existing GMP sites in Denmark, the UK and Avanti (US), and creating a new Pharma facility in Pennsylvania (US) to meet forecast market demand, with over £90m invested to date under this programme and spend expected to accelerate in 2023. Alongside this investment, the US and UK governments are co-investing up to an additional £75m, recognising the importance of new generation delivery systems to global pandemic preparedness and drug discovery. This investment will support our innovation pipeline of sales from new product development in the Pharma business.

We expect to supplement our organic plan with selective acquisitions to add adjacent and complementary technologies, particularly those which can accelerate our transition to greater use of natural raw materials or build new technology platforms, enhancing future growth. Shortly after year end, we announced an agreement to acquire Solus Biotech, a leading producer of premium, biotechnology-derived beauty actives based in South Korea. Solus consolidates our position as a global leader in sustainable actives, builds our biotech knowledge base, adds a North Asian manufacturing and innovation facility, and brings rich IP and proprietary know-how that we can leverage globally. Our continued capital deployment will be executed within our consistent capital allocation policy, set out in the Finance Review. Alongside organic and inorganic investment, the policy provides for a regular and increasing ordinary dividend to shareholders, while operating an appropriate balance sheet. As part of this, the Board has recommended an increased full year declared dividend of 8% per share to 108.0p (2021: 100.0p).

Strong performance in Asia, Western Europe and Latin America

On a geographic basis, all regions saw continuing good growth in sales and profit, other than North America. Asia achieved a record year with strong demand, particularly in Life Sciences, and modest growth in China, despite pandemic lockdowns. Demand in Western Europe remained robust, despite higher prices and energy costs, with strong growth in Crop Protection and Beauty Care. Latin America enjoyed good growth, led by demand in the regional Crop Protection market and supported by Consumer Care demand, including the new F&F operation. EEMEA (Eastern Europe, Middle East and Africa) saw a negative financial impact from the closure of our Russia business (which represented approximately 1% of Group sales in 2021).

In North America, sales peaked in the first quarter before softening in Consumer Care and Pharma, the latter partly reflecting lower Covid-19 demand post-pandemic. Consumer Care was negatively impacted by significant customer destocking, with US customers particularly impacted by lower exports to China following lockdowns.

Continued growth across sectors

Consumer Care performance demonstrating increased resilience

Consumer Care achieved record sales and adjusted operating profit in 2022. Sales grew by 18% to £897.8m (2021: £763.0m), with price/mix up 22% as significant inflation was successfully recovered. Adjusted operating profit increased by 9% to £204.7m (2021: £188.5m), resulting in return on sales reducing to 22.8% (2021: 24.7%). This primarily reflected the operating gearing effect of lower volume, alongside a weaker product mix as Beauty Care and F&F grew faster than the higher margin Beauty Actives business. IFRS operating profit declined to £144.5m (2021: £168.0m), which included an impairment charge of £34.6m on goodwill in the Flavours business, where the future value of this business is behind the acquisition case.

After a stand-out performance in Consumer Care in the first half of 2022, growth slowed in the second half year. Full year volume was 12% lower than 2021, driven by two components. Firstly, destocking developed across our customers and the retail supply chain. This followed strong demand in 2021 to meet the post-pandemic recovery, when customers, worried about global supply chain delays and meeting this recovery, restocked significantly; Personal Care sales grew by 20% in the second half of 2021. Slowing consumer sales led to destocking by customers in the second half of 2022, particularly in North America. Secondly, volume was lower due to selective demarketing of lower margin products due to capacity constraints in some Croda sites, together with the closure of our Russia office. It is estimated that customer destocking has accounted for five percentage points of the volume decline, with five points from demarketing and the balance from Russia and other impacts.

Our sector strategy is to Strengthen to Grow and delivery is progressing well, positioning Consumer Care as a more resilient growth platform. Our ingredient transparency programme is supporting a structural shift in behaviour by customers and consumers towards sustainable ingredients, providing product information dossiers and carbon footprint data that includes upstream supply chain emissions. The sector delivered an increase in bio-based ingredients to 56% (2021: 50%), greater use of biotech across the product portfolio and nearly 290,000 tonnes of avoided carbon emissions in 2022. Greater innovation is also being delivered as part of an enhanced formulation capability, with our new Formulation Academies minimising the customer's time to market and giving smaller customers greater access to formulations containing Croda's high performance ingredients. Consumer demand is growing strongly in Asia and, to deliver fast growth in the China domestic market, we have acquired a new site for a fragrance and botanicals facility.

Encouragingly, sales growth was strongest in Beauty Care and F&F. Beauty Care benefitted from strong pricing, good demand from multinational customers and the move to sustainable ingredients. With strong growth in solar protection for daily wear, Croda's mineral sunscreens had a record year and sales of ECO bio-based surfactants to Personal Care customers increased threefold. In 2020 we added fragrances to Croda's portfolio and 2022 saw the creation of a full formulation service for customers. Sales in fragrances recovered well, after a challenging 2021, with growth in emerging markets, benefits from the integration of 2021's Parfex fine fragrance acquisition and a developing pipeline of sales synergies between Croda and Iberchem. Flavours suffered its worst year for raw materials, with 32% price inflation and shortage of supply, and margin was squeezed as the business did not fully recover input cost inflation. A quieter year for Beauty Actives sales nevertheless saw development into adjacent technologies continue, with the launch of encapsulated retinol and a growing pipeline of biotech-derived actives. The smaller Home Care business continued its roll out of high value proteins for fabric care, extending the life of clothes, with new contracts underpinning future growth.

Life Sciences building on exceptional prior year

Following an outstanding year for Life Sciences in 2021, with the rapid expansion of Croda Pharma following the Avanti acquisition and exceptional demand for Covid-19 vaccines, 2022 saw further strong progress, driven by an excellent performance in Crop Protection and an extensive pipeline of non-Covid delivery systems in Pharma.

Sales grew by 19% to £682.3m (2021: £572.3m) with performance strengthening in the second half of the year. Price/mix grew by 6%, while volume was 8% higher. Adjusted operating profit increased by 10% to £229.4m (2021: £208.5.m), as did IFRS operating profit to £220.3m (2021: £201.0m). With Crop Protection a larger proportion of the sales mix and a normalising lipid systems margin, return on sales reduced to 33.6% (2021: 36.4%).

Our strategy to Expand to Grow in Life Sciences sees us empowering biologics delivery in Croda Pharma and reinforcing our existing leadership in sustainable delivery systems for Crop Care. In 2022, this saw the Health Care business repositioned as Croda Pharma, focused on technologies with the fastest growth and innovation needs. The relaunch was accompanied by a new brand, organisational structure and governance for its exciting customer and innovation pipelines. We are investing in innovation, knowledge and capacity, and secured co-investment from national governments. Crop Protection is meeting growing demand for sustainable crop care solutions and emerging delivery systems for crop biologics that are enabling customers to transition to biopesticides.

Encouragingly, 2022's performance was achieved despite the anticipated near-40% decline in sales of lipid systems due to lower demand from our principal Covid-19 vaccine customers. The balance of the Pharma business, Crop Protection and Seed Enhancement all grew sales by double digit percentages. Crop Protection was the standout business, benefitting from a strong agricultural commodity pricing and demand environment. Its strength in sustainability was reflected in Croda's recognition by Syngenta in its 'Reduction in Carbon' supplier award. Seed Enhancement's range of coatings free from microplastics has now been proven in field trials with customers in all major regions and commercial roll out has commenced.

In Pharma, Protein/Small Molecule Delivery grew strongly, providing delivery systems for both the more mature small molecule drugs and the higher growth protein and monoclonal antibody (mAb) applications, with over a thousand customer projects underway. Adjuvant Systems experienced lower demand in Covid-19 applications, offset by growth in its current generation adjuvants, now supplied to over 100 customers, while supporting hundreds of projects to develop new prophylactic vaccines and novel therapeutic vaccines that fight already contracted diseases. These included a respiratory syncytial virus (RSV) vaccine in phase 3 trial and a personalised cancer vaccine in clinical phase 2 development.

The Nucleic Acid Delivery systems business is the world's leading innovator of lipid and other components in this new field of drug treatment. The business is developing its portfolio from the blockbuster Covid-19 vaccines, which drove 2021 demand, to new mRNA and gene therapy vaccines, and therapeutic drugs. 2022 sales in this business were approximately US$170m (2021: $230m), a little ahead of expectations, mainly due to additional Covid-19 vaccine demand; sales outside the principal Covid-19 vaccine customers already represent almost 40% of this business and are expected to be the majority of the $120m sales forecast for 2023, as Covid-19 sales continue to decline. We are supplying delivery systems to customers for close to 100 nucleic acid drugs currently in development, including the world's first human trial of a gene therapy application.

Industrial Specialties established

With the divesting of the majority of Croda's PTIC business on 30 June 2022, the remaining industrials business, including the SIPO joint venture in China, has become the Industrial Specialties sector. It plays an important role in our manufacturing model, supporting the Consumer Care and Life Sciences sectors on shared sites and operating a medium-term supply contract to the new owner of the divested business. 2022 therefore comprised the full business in the first half year and the retained business in the second half year. Reported sales were £509.2m (2021: £554.3m) and adjusted operating profit was £81.0m (2021: £71.6m). It is estimated that, had the divestment occurred at the start of 2022, sales would have been £191m lower and adjusted operating profit £39m lower in 2022. Reported IFRS profit was £79.9m (2021: £69.2m). After a strong first half year pre-divestment, Industrial Specialties continued to perform well, benefitting from higher commodity prices, with second half sales of £167m and a return on sales of 12.3%.

Delivering our strategy

We combine leadership in sustainability with market-leading innovation to deliver consistent top and bottom-line growth, with profit growing ahead of sales, ahead of volume in the medium term. This is enabling us to help to meet global challenges and capture new opportunities.

Delivering our sustainability commitment

Sustainability trends are developing rapidly in our markets as consumers look to make a positive contribution to living more sustainably through the products that they buy. In addition, climate change poses a major risk to the planet which we must all address. We enable customers to realise their sustainability ambitions through the application of our innovation, creating sustainable alternatives that current supply chains cannot offer. We are reinforcing our sustainability leadership by reducing the adverse impact of our operations, by replacing fossil-based ingredients with bio-based materials, reducing emissions, promoting biodiversity and ensuring our sourcing activities make a positive contribution to communities in our supply chains. Our sustainability strategy is built on 23 UN SDG targets grouped around the themes of climate, nature and society, supporting our commitment to be Climate, Land and People Positive by 2030.

To be Climate Positive, our verified carbon reduction target will ensure we contribute to limiting the global temperature rise to no more than 1.5°C above pre-industrial levels, providing customers with an average 35% reduction in carbon emissions associated with our products by 2030, compared to our 2018 baseline. To achieve this Science-Based Target (SBT), we have developed externally validated decarbonisation roadmaps for every Croda location and adopted an internal carbon price to ensure investment decisions align with our sustainability ambitions. We have also continued our focus on upstream supply chains, with almost a quarter of suppliers by volume committed to SBTi carbon reduction targets.

Building on our Land Positive commitment, we announced our aspiration to be Net Nature Positive by 2030 and are working to understand our impacts and dependencies on biodiversity. We also joined the World Business Council for Sustainable Development and its Nature programmes, with the aim of being an early adopter of the future Science-Based Targets for Nature, when published.

Our People Positive objective addresses the needs of both our communities and our employees. Living our Purpose, Smart science to improve lives™, we have met our target to protect 60 million people from the damaging effects of the sun, seven years ahead of schedule. Additionally, the Croda Foundation distributed £1 million of funding to 13 projects and another £2 million of grants funded by our Pharma business for health infrastructure projects in South Asia, Africa and Brazil, in total benefitting 15 million people. Our employee engagement surveys show that 71% of our people are motivated by our Purpose and 69% feel involved in delivering our sustainability ambitions. With a target to achieve gender balance in Croda leadership roles by 2030, 2022 saw women occupy 38% of these roles (2021: 36%).

Reflecting our absolute commitment to be a safe company for our communities and our employees, we set a stronger safety target to reduce our Total Recordable Incident Rate ("TRIR") to 0.3 by 2025, requiring us to more than halve our current rate of 0.74 (2021: 0.76 restated), excluding Covid-19 cases. We conducted a safety culture survey at more than 40 sites, enabling us to identify areas for particular focus.

We have reflected the impact of the PTIC divestment in our sustainability targets. Scope 1 and 2 emissions reduced by 26% as a result of the sale and we have re-baselined our target to maintain the original challenge. The proportion of bio-based organic raw materials reduced to 59% due to the disposal (2021: 69%) but we have retained our original target to achieve 75% by 2030. We have also retained our carbon cover target (where use of our products avoids four times the carbon emissions associated with operating our business) which becomes more stretching as a result of the divestment.

Driving innovation

Innovation is at the heart of what we do, creating new market and technology niches. We have stepped up our rate of innovation through more resource investment, more external partnerships and a focus on 'big bet' projects. This will support higher growth, improved mix and better margin as we become a more knowledge-intensive company, capturing more intellectual property (IP).

The foundation of our innovation model is internal R&D investment, applying the expertise of our scientists at our global innovation centres to meet customer needs. This is complemented by our open innovation network, which provides access to over 500 universities and SMEs to help develop new intellectual property. We also invest externally in disruptive technologies, the benefits of which can be seen in recent product launches that have leveraged expertise in both biotech and encapsulation to reduce impacts and improve efficacy.

Our 'big bet' projects are reinforcing our leadership in formulation science and harnessing the potential of biotech, alongside our conventional chemical technologies. In formulation science, we are developing a greater understanding of the impact of our ingredients on wellbeing and self-esteem through neuroscience research, and are sharing our expertise with customers through our new Formulation Academies. We are scaling biotech, with projects to develop more sustainable actives and bio-based fragrance ingredients. R&D here is led by our five biotech laboratories, mostly established through technology acquisitions over the last decade. Candidate technologies are then scaled up at application laboratories in Paris and two UK facilities, before being taken to market by existing business units. Beauty Actives is launching novel anti-ageing and anti-dandruff ingredients developed in this way.

We seek to drive New & Protected Product (NPP) sales growth at least as fast as total sales over the cycle, targeted at mid to high single digit percentage growth. This allows the business to grow through IP-rich NPP and technology acquisitions, while leveraging our rich heritage product portfolio by finding new applications and data for existing products. In 2022, NPP sales grew at 2.6% in constant currency, adjusting for the impact of the PTIC divestment, despite lower lipid systems sales in the year.

Sector strategies to deliver consistent growth and even stronger margins

Within our strategy to drive sustainability and innovation to deliver profitable growth, each of our seven businesses within the two focus sectors targets superior sales growth, at least one and a half times global GDP, margins of at least 20% and return on invested capital (ROIC) of at least twice our cost of capital over the medium term.

Our vision for Consumer Care is to be the most sustainable, innovative and responsive solution provider globally through our Strengthen to Grow strategy. Consumer Care targets annual organic sales growth of at least 5%, supplemented by synergies from integrating the recent F&F acquisitions, with a return on sales at or above 25%, over the medium term.

Our vision for Life Sciences is to empower biologics delivery, enabling our customers to transition to biologic actives which are transforming pharmaceutical and crop science markets. Our Expand to Grow strategy is reinforcing our leadership in sustainable delivery systems in Crop Care and positioning Croda Pharma in drug and vaccine markets which need complex, innovative delivery systems. Life Sciences targets high single digit percentage annual sales growth, with a return on sales over 30% over the medium term.

Supporting our strategic themes of 'Strengthen to Grow Consumer Care', 'Expand to Grow Life Sciences' and 'Scaling Biotech', as set out above, are three additional strategic initiatives:

- 'Fast Grow Asia', where we are expanding our technical capabilities and building new manufacturing capacity, to serve rising regional consumption of Consumer Care products and growing opportunities in Pharma and Crop Care. Investment in innovation and sales resource helped deliver a record year for Asia. We are continuing to expand our manufacturing capability in Asia, including commencing construction of a new greenfield site in India, to support the exciting opportunities ahead;

- ‘Proactive Acquisitions’, where our global scouting network is identifying potential adjacent technology opportunities in Consumer Care and Life Sciences, such as the Solus Biotech acquisition announced in February 2023; and
- ‘Doing the Basics Brilliantly’, which is improving our customer and employee experience through a combination of digital technology, customer insights, new data architectures, enhanced manufacturing capability and employer branding. 2022 saw good results in our customer ‘Net Promoter Score’ (NPS) and a new customer self-serve ordering online portal developed for global roll-out.

Outlook

Though early in the year, the Group is trading in line with expectations. We expect the customer destocking that has been particularly apparent in North America to come to an end in the first half year, supporting continued sales growth this year in Consumer Care. In Life Sciences, we expect good sales growth in Crop Care and the non-Covid related Pharma business to offset the previously indicated decline in Covid-19 vaccine demand. Group performance in 2023 will be more second half weighted than in the prior year, reflecting the divestment of the majority of PTIC in June 2022 and the phasing of lipid systems shipments to our principal Covid-19 vaccine customers.

The combination of our differentiated business model, enhanced investment programme and exciting innovation pipelines in sustainable ingredients and drug delivery, will continue to deliver consistent, superior returns.

Finance Review

Consistent execution delivers record performance

With our powerful business model, broad portfolio, global footprint and flexible operations, we delivered an 11% increase in both sales and adjusted profit before tax in 2022, managing a challenging environment across global markets. On an IFRS basis, profit before tax grew by 90%, which includes a significant gain on the business divestment.

Currency translation

Sterling weakened against the US Dollar to US$1.237 (2021: US$1.375) but was broadly flat against the Euro (€1.174 (2021: €1.164)). Currency translation benefitted sales by £100.6m and adjusted operating profit by £19.6m. Transactional currency impact is correlated with translation, given that the UK and EU are meaningful centres of production for the Group, with the weakness of both Sterling and the Euro against the US Dollar having a net positive impact.

Impact of PTIC divestment

The Group received cash consideration of £651.0m, net of customary deductions, from the divestment of the majority of its PTIC business. The divestment generated a pre-tax gain on disposal of £356.0m which has been separately recognised in the Income Statement, within the Adjustments column. The divested business did not meet the requirements to be classified as a discontinued operation as Croda did not exit a geographical area of operation and it retained a proportion of the PTIC business, now reported as Industrial Specialties. In 2022, the revenue of Industrial Specialties was £509.2m and adjusted operating profit £81.0m (with the prior period restated to combine the PT and IC segments, which were previously reported separately). Taking account of the sales and profit retained by Croda under supply agreements for products manufactured at Croda retained 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 these results, had disposal occurred on 1 January 2022, would have been to reduce revenue by £191m and adjusted operating profit by £39m. Following the divestment, associated dis-synergy costs have been allocated across the Consumer Care and Life Sciences sectors. This reduced second half year return on sales in these two sectors by just under one percentage point compared with the prior year comparator period.

Strong sales from organic growth

Group sales grew by 10.6% to £2,089.3m (2021: £1,889.6m), comprising underlying growth of 4.6%, currency translation of 5.4% and acquisition impact of 0.6%. Within underlying growth, sales/price mix improved by 24.2%, reflecting the successful recovery of cost inflation and improved mix. By contrast, volume reduced by 19.6%, with an estimated 13 percentage points of the decline driven by the PTIC divestment, which resulted in lower sales in Industrial Specialties in the second half year.

	Full year ended 31 December						
Sales	**2022 £m**	Price/mix	Volume	Acquisition	Currency	Change	Restated 2021 £m
Consumer Care	897.8	22.0%	(12.3)%	1.5%	6.5%	17.7%	763.0
Life Sciences	682.3	5.7%	8.2%	0.0%	5.3%	19.2%	572.3
Industrial Specialties	509.2	19.9%	(31.7)%	0.0%	3.7%	(8.1)%	554.3
Group	2,089.3	24.2%	(19.6)%	0.6%	5.4%	10.6%	1,889.6

Consumer Care sales increased by 17.7%, with underlying sales 9.7% higher. Sales/price mix was strong, partly offset by volume which reduced due to a strong comparator period, de-marketing of lower margin products in light of capacity constraints and customer destocking in the second half of 2022. Life Sciences sales increased by 19.2%, with underlying sales 13.9% higher, supported by both price/mix and volume growth. Second half year growth accelerated in Life Sciences, with a good performance in Seed Enhancement complementing continued Crop Protection growth.

2022 sales growth	First Half %	Second Half %	Full Year %
Consumer Care	24.0	11.8	17.7
Life Sciences	13.5	25.1	19.2
Industrial Specialties	23.9	(40.0)	(8.1)
Group	20.7	0.7	10.6

Record Group profit delivery despite continued inflation

2022 saw a second consecutive year of raw material inflation driven by global commodity prices and geopolitical events, with prices of the top 75% of raw materials up by 23%, in addition to the 17% rise seen in 2021. Raw material costs peaked in the third quarter of 2022 and have seen modest declines since. Operating costs were impacted by increasing inflation during 2022, most notably in energy and labour costs. Croda's powerful business model enabled overall inflation recovery, protecting absolute profit. Operating costs also benefitted from a lower variable remuneration charge, reflecting the impact of a lower share price on share scheme costs.

	2022			2021		
	IFRS £m	Adjustments £m	Adjusted £m	IFRS £m	Adjustments £m	Adjusted £m
Sales	2,089.3	-	2.089.3	1,889.6	-	1,889.6
Cost of sales	(1,103.7)	-	(1,103.7)	(950.7)	-	(950.7)
Gross profit	985.6	-	985.6	938.9	-	938.9
Operating costs	(540.9)	(70.4)	(470.5)	(500.7)	(30.4)	(470.3)
Operating profit	444.7	(70.4)	515.1	438.2	(30.4)	468.6
Gain on business disposal	356.0	356.0	-	-	-	-
Net interest charge	(20.7)	(1.7)	(19.0)	(26.7)	(3.3)	(23.4)
Profit before tax	780.0	283.9	496.1	411.5	(33.7)	445.2
Tax	(126.7)	(13.8)	(112.9)	(88.7)	5.7	(94.4)
Profit after tax	653.3	270.1	383.2	322.8	(28.0)	350.8

IFRS operating profit was £444.7m (2021: £438.2m), the gain on the PTIC disposal was £356.0m and interest charge £20.7m, giving a profit before tax of £780.0m (2021: £411.5m). Operating costs included a charge for other adjusting items of £70.4m (2021: £30.4m), reflecting an unchanged charge for amortisation of intangible assets arising on acquisition of £34.3m (2021: £34.3m) and a charge for exceptional items of £36.1m (2021: £3.9m credit). In common with many companies, Croda separately identifies such items which require separate disclosure by virtue of their size or incidence. The charge for exceptional items comprised a gain on contingent consideration on a previous acquisition of £6.1m and an impairment charge of £42.2m, reflecting a £34.6m write-down of goodwill in the Flavours cash generating unit, where forecast sales and margin are behind the acquisition case, reducing the future value projection, and a £7.6m write-off of unusable manufacturing equipment in Japan. The adjusting charge within net interest relates to unwind of the discount on contingent consideration of £1.7m (2021: £3.3m).

Adjusted operating profit, measured excluding the adjusting items above, increased by 9.9% to £515.1m (2021: £468.6m), reflecting the higher sales. Return on sales was broadly unchanged at 24.7% (2021: 24.8%), with an improved margin mix from the reduced share of industrial sales and the lower variable remuneration charge offset by normalisation of the Life Sciences margin, after an exceptional 2021, and a lower Consumer Care margin due to the operating gearing effect of lower volume and a weaker product mix. Adjusted profit before tax increased by 11.4% to £496.1m (2021: £445.2m).

The effective tax rate on adjusted profit was 22.8% (2021: 21.2%), the prior year having benefitted from a one-off benefit from settlement of a previously uncertain tax position. The effective tax rate on IFRS profit was 16.2% (2021: 21.6%), the lower rate reflecting corporate tax exemptions available on the PTIC divestment. There were no significant adjustments between the Group's expected and reported tax charge based on its accounting profit. IFRS basic earnings per share (EPS) more than doubled to 465.8p (2021: 230.0p), while adjusted basic EPS increased by 8.8% to 272.0p (2021: 250.0p).

Growing sector profits

Operating profit	2022 IFRS £m	2022 Adjustments £m	2022 Adjusted £m	2021 restated IFRS £m	2021 restated Adjustments £m	2021 restated Adjusted £m
Consumer Care	144.5	(60.2)	204.7	168.0	(20.5)	188.5
Life Sciences	220.3	(9.1)	229.4	201.0	(7.5)	208.5
Industrial Specialties	79.9	(1.1)	81.0	69.2	(2.4)	71.6
Group	444.7	(70.4)	515.1	438.2	(30.4)	468.6

Consumer Care adjusted operating profit grew by 8.6%, driven by higher sales but at a lower margin, reflecting lower volume and an adverse business mix. Life Sciences adjusted operating profit grew by 10.0%, despite the prior year being buoyed by exceptional demand for Covid-19 vaccines, with sales growing in the rest of the Pharma business and in Crop Care. Industrial Specialties profit grew by 13.1%, a strong result given the business was significantly smaller, following the divestment of the majority of the business in June 2022 (with the second half of 2021 estimated to have benefitted from £27m of adjusted operating profit from the divested business (compared to £nil in the second half of 2022)). Group profit growth reflected underlying growth and currency translation benefit across all sectors, with no material impact from acquisitions (covering the first 12 months of ownership).

Adjusted profit	Full year ended 31 December 2022 £m	Underlying growth £m	Acquisition impact £m	Currency impact £m	Restated 2021 £m	Change
Consumer Care	204.7	8.8	0.7	6.7	188.5	8.6%
Life Sciences	229.4	9.8	0.0	11.1	208.5	10.0%
Industrial Chemicals	81.0	7.6	0.0	1.8	71.6	13.1%
Operating profit	515.1	26.2	0.7	19.6	468.6	9.9%
Net interest	(19.0)				(23.4)	(18.9)%
Profit before tax	496.1				445.2	11.4%

The phasing of return on sales between the first and second half years reflected normal seasonality, together with a lower margin in Consumer Care in the second half year due to the dilution effect of lower volume and business mix.

2022 return on sales	First Half %	Second Half %	Full Year %
Consumer Care	26.6	18.9	22.8
Life Sciences	36.0	31.4	33.6
Industrial Specialties	17.7	12.3	15.9
Group	26.6	22.3	24.7

Improving free cash flow

Free cash flow was £167.4m (2021: £153.6m), with working capital improving, as expected, in the second half year as raw material inflation peaked, resulting in a reduction in inventory and receivables values. Nevertheless, average values remained elevated at year end; of the £133.8m increase in working capital during the year, approximately £82m reflected the impact of inflation at a ‘constant days cover’. The remaining £52m reflected investment for growth, primarily higher receivables. Net capital expenditure was £138.5m (2021: £158.5m), driving future growth opportunities and supported by government funding grants in the Pharma business. Investment was behind expectation, with some supply chain challenges, but is expected to recover the shortfall in 2023, in line with our plans.

Cash flow	Full year ended 31 December 2022 £m	2021 £m
Adjusted operating profit	515.1	468.6
Depreciation and amortisation	86.4	79.0
EBITDA	601.5	547.6
Working capital	(133.8)	(102.5)
Net capital expenditure	(138.5)	(158.5)
Payment of lease liabilities	(17.4)	(14.4)
Non-cash pension expense	4.5	11.2
Interest & tax	(148.9)	(129.8)
Free cash flow	167.4	153.6
Dividends	(144.4)	(132.5)
Acquisitions	(21.2)	(58.8)
Business disposal net of cash in disposed businesses	579.0	-
Other cash movements	(18.5)	19.0
Net cash flow	562.3	(18.7)
Net movement in borrowings	(381.8)	37.6
Net movement in cash and cash equivalents	180.5	18.9

Closing net debt was £295.2m (2021: £823.2m), benefiting from disposal proceeds. The leverage ratio reduced to 0.5x EBITDA (2021: 1.4x). As at 31 December 2022, the Group had committed funding in place of £1,122.5m, with undrawn committed facilities of £579.3m and £320.6m in cash.

Assessing evolving risks

The Group conducts scenario modelling as part of its viability and going concern evaluation, to evaluate the impact of uncertainties, continually reassessing evolving risks and their impact on the Group's strategy. These scenarios highlighted the resilience of the Group and its ability to withstand unexpected shocks.

Effective capital allocation

The divestment has released capital to be reinvested in faster growth markets, further developing our sustainability leadership in consumer care and crop care markets, whilst increasing our presence in pharmaceutical delivery systems. We are prioritising organic capital investment to create new technology platforms and expand capacity for future growth. This will be complemented with inorganic investment, where we can acquire complementary businesses and organically invest in them to grow, in line with our 'buy and build' model. These elements are reflected in the Group's capital allocation policy, to:

1. Reinvest for growth – investment 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 8% to 108.0p (2021: 100.0p);

3. Acquire disruptive technologies – to supplement organic growth, we are targeting a number of exciting technology acquisitions in existing and adjacent markets, with a focus on strengthening our Consumer Care business and expanding in 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.

Retirement benefits

The post-tax asset on retirement benefit plans at 31 December 2022, measured on an accounting valuation basis under IAS19, was £75.2m (2021: £5.8m), with the surplus primarily reflecting higher discount rates. Cash funding of the various plans is driven by the schemes' ongoing actuarial valuations. 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. Although the UK scheme utilises a Liability Driven Investment (LDI) structure, its gearing level is modest and no solvency issues were encountered during the UK gilt 'crisis' during September 2022.

Post balance sheet events

On 3 February 2022, we agreed to acquire Solus Biotech, a global leader in premium, biotechnology-derived beauty actives, from Solus Advanced Materials for a total consideration of KRW350bn (approximately £232m) on a debt-free, cash-free basis. Employing 95 people in South Korea, Solus expands Croda's Asian manufacturing capability and will create a new biotechnology R&D hub in the region. The business generated approximately KRW43bn (c.£28m) of sales in 2022. The pending acquisition will provide access to Solus' existing biotech-derived ceramide and phospholipid technologies, and its emerging capabilities in natural retinol, and will enhance and complement our Beauty Actives portfolio and increase our exposure to targeted prestige segments. The acquisition is subject to regulatory approval and will be funded from cash and debt facilities.

Sector Performance Review

Consumer Care

Strengthening Consumer Care to be more responsive, innovative and sustainable

Croda has the broadest range of critical Consumer Care ingredients in the industry, speciality products that are both sustainable and underpinned by performance. Our business model helps us to win; operating in over 120 countries, Croda supports customers large and small globally.

The Consumer Care strategy reflects the megatrends that shape consumer behaviour and drive our customers' needs. Consumers want performance and will pay a premium for high quality, innovative formulations and substantiated product claims. They also want to live their lives more sustainably and this is impacting their decisions when it comes to the products to buy.

Our ambition is to be the world's most sustainable, innovative and responsive solution provider. Already recognised as a market-leading innovator, our strategy is to continue to strengthen Consumer Care in fast growth niches, by accelerating innovation, expanding our sustainable product portfolio and enhancing our customer intimacy. Leadership requires us to deliver sustainable ingredients with the best performance and data to support customer claims. We will also lead in formulation science and application technologies.

Our innovation is improving the sustainability of our ingredients and finding high performance replacements for fossil-based products. New Formulation Academies enable us to showcase our ingredients, educate customers on their use and develop finished formulations for customers, incorporating both our performance-based ingredients and emotion-driven fragrances and botanicals to deliver complete solutions. This is particularly attractive to smaller companies, who can partner with Croda to launch products to the market at pace.

With the personal care market in Asia developing rapidly, we have a 'fast grow' programme to expand our technical and sales presence. This is being supported by selective expansion in manufacturing and a focus on acquisition opportunities, targeting adjacent active technologies and natural ingredients. We have reached agreement to acquire Solus Biotech, consolidating Croda's position across three critical technology platforms of peptides, ceramides and retinol, while adding a North Asia manufacturing facility and biotech innovation hub.

Consumer Care targets annual organic sales growth of at least 5%, supplemented by synergies from integrating the recent F&F acquisitions, with a return on sales at or above 25%, over the medium term. Its key target markets are skin care, hair care, solar protection, fabric and surface care, and fragrances. These are addressed through four business units, as follows:

Beauty Actives (c15% of sector sales) operates in the highest premium part of the market, offering customers scientific expertise for unparalleled product efficacy. Croda leads the market with the largest actives portfolio, through three brands: Sederma, for differentiated skin actives derived from peptides and biotech; Alban Muller, for natural botanical actives; and Crodarom, for botanical extracts. The strategy is to be the 'go to' provider for performance claims, reinforcing our leadership by expanding our footprint, accessing sustainable technologies, leveraging the recent Alban Muller acquisition and targeting new acquisitions in adjacent technologies, such as the recently announced Solus acquisition.

Beauty Care (c55% of sector sales) delivers differentiated ingredients across skin, hair and solar care, with a heritage portfolio which is the second largest in the industry. The strategy is to strengthen Beauty Care through a focus on growth and agility in the target market segments, innovate in sustainable effect ingredients, deliver a full service formulation capability for customers and differentiate our products through a rich data set which customers can leverage to meet their specific market needs.

Fragrances and Flavours (F&F) (c25% of sector sales) is the preeminent emerging market provider, with near-global reach and innovative technologies that meet smaller customers' needs. This is delivered through two fragrance brands: Iberchem, differentiated by its customer intimacy and responsiveness; and Parfex, with its excellent reputation in prestige markets for fine and natural fragrances, as well as Scentium in Flavours. The strategy is to develop the business as a leader in sustainable fragrances, unlocking the potential of F&F through organic growth and driving synergies with Croda's ingredient customer base.

Home Care (c5% of sector sales) is focused on bringing Croda's ingredients to selective premium home care markets. This is delivered through two technology platforms which deliver improved efficacy and sustainability: fabric care, with proteins that increase the lifetime of clothes; and household care, with sustainable alternatives to fossil-based surfactants.

Consumer Care – a solid performance demonstrates increased resilience

Consumer Care delivered a solid performance in 2022, with record sales and profit but a more constrained second half year performance. Sales were up 18% and adjusted operating profit 9% higher. Across the four businesses, Beauty Care and F&F saw the strongest growth. Beauty Care developed well in the higher value niches driven by demand for sustainable ingredients, such as mineral sunscreens. Within F&F, sales in fragrances recovered after a challenging 2021, as emerging market conditions improved, alongside developing Croda sales synergies and benefits from integration of the recent Parfex acquisition. Beauty Actives had a quieter year, with destocking impacting performance but good progress integrating the recent Alban Muller acquisition. Home Care grew with the roll out of high value protein ingredients.

Sales grew to £897.8m (2021: £763.0m). Price/mix was up 22% as significant input cost inflation was successfully recovered. Volume was 12% lower than 2021, driven by two components. Firstly, excess stocks across our customers and the retail supply chain, following strong demand in 2021 to meet the post-pandemic recovery, led to destocking by customers in the second half of 2022, particularly in North America. Secondly, volume was lower due to selective demarketing of lower margin products due to capacity constraints in some Croda sites, together with the closure of our Russia office. It is estimated that customer destocking has accounted for five percentage points of the volume decline, with five points from demarketing and the balance from Russia and other impacts. Previous acquisitions added 2% to overall sales growth (in their first 12 months of ownership) and currency translation added 6%.

Adjusted operating profit increased to £204.7m (2021: £188.5m). Return on sales reduced to 22.8% (2021: 24.7%), with second half year margin lower due to the gearing effect of lower volume and the impact of the adverse business mix, as Beauty Care and F&F grew faster than the higher margin Beauty Actives business. IFRS operating profit declined to £144.5m (2021: £168.0m), including an impairment charge of £34.6m to the carrying value of the Flavours business, where lower forecast sales and margin have reduced the future value projection.

Delivery of our Strengthen to Grow strategy is progressing well, positioning Consumer Care as a more resilient growth platform. Consumer care products are increasingly synonymous with wellbeing and self-esteem, with consumers willing to pay a premium for new trends and high quality/low impact products that are good for them and good for the planet. Croda is positioned as the leading innovator, developing cutting edge products with substantiated claims and fully assured impact data for customers to develop their new products. In 2022, we published product information dossiers on our products and are developing life cycle assessments and associated carbon footprint data that include the scope 3 carbon emission data for our products. Driving fast innovation and minimising customers' time to market, we have launched Formulation Academies, promoting our full service formulation capability and giving smaller customers greater access to market-leading formulations. With over 70,000 customer/product combinations in F&F and 40,000 across the remainder of Consumer Care, the Academies are benefiting all our businesses, but particularly Beauty Care and F&F.

We are expanding in Asia, with rising regional consumption increasing penetration of consumer care products and Croda's sales now matching those in North America. China is likely to be the fastest growing market, with Croda already well established and serving the domestic market through imports and local production, achieving high single digit percentage sales growth in 2022 despite local Covid lockdowns. With our 'fast grow Asia' strategic initiative, investment in China is increasing innovation and sales resource, replicating our US model to serve a growing customer base of 'Indie' brands and acquiring a site to expand our fragrance and botanical production. More broadly, investment in Consumer Care is focused on expanding sustainable technologies, including biotech. We continue to explore targeted acquisition of adjacent knowledge-rich technologies, building on the agreement to acquire Solus Biotech, with its rich IP and proprietary know-how in biotech-derived beauty actives.

Skin care is a growth market, with the anti-ageing niche we target growing even faster. Beauty Actives has the largest active ingredient portfolio. Underlying sales were flat in 2022 against a strong prior year which had seen sales grow close to 30%, and the business experienced customer destocking in the third quarter but recovering somewhat as the year finished. Beauty Actives increased its customer base and innovation pipeline. Croda is the recognised leader in peptide ingredients, an effective anti-ageing technology, and is expanding into two other critical technology platforms – retinol and ceramides. In retinol, 2022 saw the launch of Revitalide, which is differentiated through encapsulation, leveraging expertise from our Brazil encapsulation centre of excellence, which improves skin penetration ninefold and doubles its lasting effect. We are entering the ceramides market through the agreement to acquire Solus.

Beauty Care saw success from new teams focused on mineral sunscreens and professional hair care, segments growing twice as fast as broader categories. Strong double digit percentage sales growth saw record solar protection sales, driven by consumer preference for mineral-only sunscreens and greater use of UV filters in daily wear products, with sales particularly strong in Asia. We achieved a People Positive commitment of protecting 60 million lives globally through sun care solutions, seven years ahead of schedule. Alongside this success, the consumer shift to sustainable ingredients saw Croda expand its bio-based and milder surfactant portfolio, while personal care sales of ECO bio-based surfactants tripled in the year, supporting our ambition to eliminate petrochemical derived surfactants globally. New product launches included ChromaPur, a natural alternative to microbeads that contain microplastics and are currently used in a wide range of personal care products.

F&F is focused on serving local customers in emerging markets, which are seeing the highest growth in fragrances. Sales grew by over 20%, with strong price recovery of raw material inflation. Innovation included bio-based fragrances and the launch of VernovaCaps, only the second biodegradable fragrance capsule on the market. The technology opens up encapsulated fragrances to customers beyond major global brands and has already been selected for fabric conditioners. The recent acquisition of Parfex has increased our presence in fine fragrances and our position in France. We have expanded our teams in Indonesia and South Africa, and launched a new F&F operation in Brazil, leveraging Croda's existing personal care strength. We are investing in China, already a significant fragrance market for Croda. Following some Covid-imposed delays, we are now driving integration synergies which will deliver nearly €50m of annual sales through combination with Croda's formulation capability. Home Care secured a new contract which will underpin growth in its core protein fabric technology and launched a microbial cleaning technology creating a new sustainable niche.

Life Sciences

Expanding Life Sciences to empower biologics delivery

In Life Sciences, Croda focuses on providing delivery systems for active pharmaceutical and crop ingredients. Our technologies deliver the active, improve its efficacy and solve challenges of stability and sustainability in customer formulations. Our 'buy and build' approach to new technology platforms has made Life Sciences as important to Croda as Consumer Care.

Our global footprint gives us presence in the major crop regions and access to leading pharma R&D. Our strength in North America and Western Europe is now leveraged through expansion in Asia and Latin America. Working as an innovation partner to the major crop science companies, we have also expanded with medium and smaller sized customers, especially local customers in Latin America, India and China. Our acquisition of research-focused Avanti in 2020 expanded our pharma customer base to span drug and vaccine discovery and clinical trial stages, alongside our established commercialisation business. These relationships extend beyond global brands to academia, start-ups and biotech, where significant breakthrough discovery happens.

Our strategy is to expand Life Sciences to empower biologics delivery, enabling the move from small chemically synthesised molecules to large and complex biologics, a megatrend which is transforming the pharmaceutical market and which will transform agriculture. In Pharma, we focus on segments with the strongest growth and highest innovation needs, leveraging our delivery systems and technology platforms to create new solutions for customers. In Crop Care, we are reinforcing our leadership with sustainable solutions and leveraging our expertise to accelerate the transition to biologics, which will enable greater targeting of actives and reduced biodiversity impact.

To deliver this strategy, we are investing in innovation, knowledge and capacity. Our R&D investment is creating an extensive innovation pipeline. We are increasing our knowledge base in innovation, sales and manufacturing, co-investing with national governments who recognise the importance of biologics in the 21st century. We are supplementing organic growth with acquisition of new technology platforms, building on the successful growth of our vaccine adjuvant platform, acquired in 2018 and already doubled in sales, and our lipid systems platform, acquired in 2020 and the first to deliver a commercial Covid-19 mRNA delivery system.

Life Sciences targets high single digit percentage annual sales growth, with a return on sales over 30% over the medium term. This is achieved through three businesses:

Crop Protection (c30% of sector sales) has leading relationships with the major crop science companies, offering ingredients that improve performance and delivery of crop formulations. Our strategy is to deliver sustainable solutions using technology platforms and expertise in complex crop formulation systems, improving yields, accelerating the transition to biologics and contributing to food security.

Seed Enhancement (c10% of sector sales) leverages our leadership in seed coating systems to improve germination, stimulate healthy development of seeds and increase crop yield. Our strategy is to be the leader in sustainable solutions for field and vegetable crops.

Pharma (c60% of sector sales) targets leadership in biologics drug delivery, delivering drug and vaccine systems through synthesis, system formulation and application technology know-how, and comprises three platforms:

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

- ***Adjuvant Systems*** was created by our 2018 acquisition of Biosector, creating the best invested third party supplier of adjuvants (immune response boosters) for vaccines. Our strategy is to accelerate use of innovative adjuvant systems, comprising multiple building blocks, supporting WHO vaccine programmes and the development of future preventative and therapeutic vaccines.

- ***Nucleic Acid Delivery*** was created by our 2020 acquisition of Avanti and delivered the world's first commercial lipid system for mRNA vaccines for Covid-19. Nucleic acid therapeutic drugs and vaccines will be increasingly commercialised from 2025. Avanti brought an unmatched portfolio of R&D customer relationships, with over 3,000 customers and a diverse range of lipids and similar components. Our strategy is to be a global leader in nucleic acid delivery systems by expanding our portfolio of technologies and ingredients.

Life Sciences building on exceptional prior year

Following an outstanding year for Life Sciences in 2021, with the rapid expansion of Pharma following the Avanti acquisition and exceptional demand for Covid-19 vaccines, 2022 saw further strong progress. Sales increased by 19% and adjusted operating profit by 10%. Across the three businesses, Crop Protection led the way, with exceptional growth driven by double-digit percentage volume and price/mix increases. Seed Enhancement, with its innovative microplastic-free product innovation, also grew sales by double-digit percentage. Croda Pharma consolidated on its stellar growth in 2021, with continued expansion in delivery systems in Protein/Small Molecule Delivery and for non-Covid nucleic acid applications.

Sector sales grew by 19% to £682.3m (2021: £572.3m) with performance strengthening in the second half of the year. Price/mix grew by 6%, while volume was 8% higher. Currency translation added 5% to overall sales growth. Adjusted operating profit increased by 10% to £229.4m (2021: £208.5.m), with IFRS operating profit also up 10% to £220.3m (2021: £201.0m). 2022's performance was achieved despite an anticipated near-40% decline in sales of lipid systems to our principal Covid-19 vaccine customers. With Crop Protection a larger proportion of the sales mix and normalising lipid systems margin, return on sales reduced to 33.6% (2021: 36.4%).

Crop Protection was the standout business, delivering strong double digit percentage sales growth, with a combination of high global demand and significant commodity price inflation supporting value added crop treatments. Working in partnership with crop science customers and collaboratively to solve sustainability challenges and improve yields, our aspiration is to be Net Nature Positive by 2030. A particular area of focus is biodegradability to promote soil health, with a number of new biodegradable ingredients coming to market. Syngenta awarded Croda its 'Reduction in Carbon' supplier award, recognising the carbon benefits in use of Croda's products and the customer benefits from our sustainability strategy. We are investing to develop systems for next generation biopesticide delivery that use microbials and RNA, a market which is currently much smaller than conventional pesticides but is growing fast. Biologic actives are more complex and specific, meaning land treatment can be at a much lower level than conventional chemical pesticides.

Seed Enhancement also delivered a double-digit percentage sales increase. As an innovation partner to leading seed companies, our range of microplastic-free seed coatings have been proven in field trials across a variety of vegetable and field crops, with all major customers and in all major regions. This is creating significant growth opportunities, with commercial sales in multiple field crops and vegetables already secured. The business delivered the first successful field trials in the Americas for drought-resistant seed coatings, helping farmers to reduce the negative impact from abiotic stress. It also developed a tailored treatment for potato seeds which have multiple sustainability benefits over potato tubers that farmers have traditionally used.

In 2022, our Health Care business was repositioned as 'Croda Pharma' to focus on segments with complex development requirements. The relaunch was accompanied by a new brand, organisational structure and governance for its exciting project and innovation pipelines. Protein/Small Molecule Delivery grew strongly, providing delivery systems for both mature small molecule drugs and higher growth protein and mAb applications. With 1,400 direct customers, the business is working on over a thousand customer projects across both clinical development and commercial supply. These include projects in several therapeutic areas, such as osteoporosis, hypertension, diabetes and cancer, particularly in Asia, North America and Europe. Strong demand in India will be supported by a new Pharma innovation centre opening soon in Hyderabad.

Within Pharma, the Adjuvant Systems business saw reduced demand from Covid systems in 2022 but has grown to over 100 commercial customers for prophylactic vaccines that prevent disease. It is also supporting many hundreds of pre-clinical and clinical projects, including new prophylactic vaccines driven by the WHO's immunisation agenda and novel therapeutic vaccines that fight already contracted disease. These include a respiratory syncytial virus (RSV) vaccine in phase 3 trials, a personalised cancer vaccine in clinical phase 2 development and a new vaccine for Ebola. The innovation pipeline is focused on the development of adjuvant systems to power the therapeutic vaccines of the future, leveraging expertise added with the Avanti acquisition and a new applications laboratory in Denmark.

With mRNA vaccines for Covid-19 having proven the viability of our Nucleic Acid Delivery business, the market for new drug and vaccine applications is developing fast, both for mRNA-based drugs and gene editing applications, which modify a patient's genetic material to correct a disorder. 2022 sales were approximately US$170m (2021: $230m), a little ahead of expectations. Sales outside the principal Covid-19 vaccine customers now represent almost 40% of business sales and are expected to be the majority of the $120m sales expected in 2023, as Covid-19 sales continue to decline. Supporting close to 100 nucleic acid drugs currently in development, including manufacturing materials for a phase 3 trial of a flu vaccine, combination vaccines, cancer immunotherapies and the world's first human trial of a gene therapy application, the pipeline for this business is strong.

We are investing in innovation, knowledge and capacity to broaden our footprint and capabilities in drug delivery, including new application laboratories aligned to each business. We have a £175m capital programme for the period 2021-24 to expand our Pharma capability, including the expansion of the US Avanti site into a full GMP facility, the expansion of our UK lipid scale up facility and the creation of a second US GMP scale up plant in Pennsylvania. Our investment is supported by up to an additional £75m from the UK and US governments, in recognition of the importance of our delivery systems to future drug development and their pandemic preparedness plans.

Industrial Specialties established

The Performance Technologies and Industrial Chemicals (PTIC) business performed well in the first half of 2022, with recovery of material input cost inflation, as volume declined as industrial markets destocked and were impacted by emerging macroeconomic recession. Industrial Chemicals benefitted from the strong commodity pricing environment.

Croda divested the majority of the PTIC business on 30 June 2022. From 1 July 2022, the part of PTIC retained by Croda became Industrial Specialties (IS), including the SIPO joint venture in China. IS plays a critical role in our shared manufacturing model, supporting the efficiency of the Consumer Care and Life Sciences sectors. In addition to supplying ingredients for water treatment, fibres and fabrics, emulsion technologies, low emission coatings, display technologies and electronics, it also generates revenue from a new supply agreement with the acquirer.

IS revenue totalled £509.2m in 2022 (2021: £554.3m) and adjusted operating profit increased to £81.0m (2021: £71.6m), despite the lack of the divested business in the second half year. IFRS profit was £79.9m (2021: £69.2m).

Other matters

Principal risks

The Group's principal risks are revenue generation; product and technology innovation and protection; digital technology innovation; delivering sustainable solutions – Climate and Land Positive; management of business change; 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. The following principal risks were identified as heightened relative to 2021:

- Revenue generation: This risk increased in likelihood and impact as greater geopolitical instability, rising inflation and slowing economic growth increased uncertainty. Our powerful business model has allowed us to continue to manage this risk effectively by recovering the significant inflation that persisted throughout 2022. After a period of strong market growth, there are some signs of macro-economic slowdown in some regions facing a cost-of-living squeeze, which could impact our ability to deliver short-term growth in consumer-facing markets;

- Security of business information and networks: The conflict in Ukraine highlights the increased risk of geopolitical disputes. One impact of this can be an increase in state-sponsored cyberattacks, increasing risk to computer networks and systems. We are implementing an enhanced information security programme; and

- Our people – culture, wellbeing, talent development and retention: Competitive labour markets and the cost-of-living crisis in some regions increase the risk of not attracting and retaining necessary talent. To successfully control that risk, we are investing in talent development, enhanced benefits according to regional needs and providing financial support to counter the increase in employees' cost of living.

The following principal risk was identified as having reduced relative to 2021:

- Loss of significant manufacturing site (major safety or environmental incident): This risk has decreased after the successful divestment of two of our large industrial sites in 2022, reducing the number of high hazard processes within the Company. In addition, capital investments in several sites in more sustainable and safer technologies, such as biofuel steam raising boilers which displace natural gas, and the introduction of continuous processes which are inherently safer and more efficient than old batch technologies, have also contributed.

Croda International Plc
Summary Financial Statements for the Year Ended 31 December 2022

Group Income Statement

for the year ended 31 December 2022

	Note	2022 Adjusted £m	2022 Adjustments £m	2022 Reported Total £m	2021 Adjusted £m	2021 Adjustments £m	2021 Reported Total £m
Revenue	2	2,089.3	–	2,089.3	1,889.6	–	1,889.6
Cost of sales		(1,103.7)	–	(1,103.7)	(950.7)	–	(950.7)
Gross profit		985.6	–	985.6	938.9	–	938.9
Operating costs		(470.5)	(70.4)	(540.9)	(470.3)	(30.4)	(500.7)
Operating profit	2	515.1	(70.4)	444.7	468.6	(30.4)	438.2
Gain on business disposal	12	–	356.0	356.0	–	–	–
Financial costs	3	(24.1)	(1.7)	(25.8)	(24.9)	(3.3)	(28.2)
Financial income	3	5.1	–	5.1	1.5	–	1.5
Profit before tax		496.1	283.9	780.0	445.2	(33.7)	411.5
Tax	4	(112.9)	(13.8)	(126.7)	(94.4)	5.7	(88.7)
Profit after tax for the year		383.2	270.1	653.3	350.8	(28.0)	322.8
Attributable to:							
Non-controlling interests		4.0	–	4.0	2.0	–	2.0
Owners of the parent		379.2	270.1	649.3	348.8	(28.0)	320.8
		383.2	270.1	653.3	350.8	(28.0)	322.8

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	5	272.0	465.8	250.0	230.0
Diluted		271.4	464.8	249.5	229.5
Ordinary dividends paid in the year					
Interim	6		47.0		43.5
Final	6		56.5		51.5

Group Statement of Comprehensive Income

for the year ended 31 December 2022

	2022 £m	2021 £m
Profit after tax for the year	653.3	322.8
Other comprehensive income/(expense):		
Items that will not be reclassified subsequently to profit or loss:		
Remeasurements of post-retirement benefit obligations	88.9	40.6
Tax on items that will not be reclassified	(22.4)	(8.3)
	66.5	32.3
Items that have been or may be reclassified subsequently to profit or loss:		
Currency translation	104.2	(61.1)
Reclassification of currency translation	(14.8)	–
Cash flow hedging	2.8	3.7
Reclassification of cash flow hedging	(6.5)	–
Cost of hedging reserve	–	(6.0)
Reclassification of cost of hedging reserve	6.0	–
Tax on items that may be reclassified	(0.4)	0.4
	91.3	(63.0)
Other comprehensive income/(expense) for the year	157.8	(30.7)
Total comprehensive income for the year	811.1	292.1
Attributable to:		
Non-controlling interests	4.4	2.1
Owners of the parent	806.7	290.0
	811.1	292.1
Arising from:		
Continuing operations	811.1	292.1

Group Balance Sheet

at 31 December 2022

	Note	**2022 £m**	2021 £m
Assets			
Non-current assets			
Intangible assets	7	1,253.2	1,271.6
Property, plant and equipment	8	964.5	988.1
Right of use assets		96.9	87.9
Investments		3.4	3.3
Deferred tax assets		10.3	13.5
Retirement benefit assets	9	123.2	35.3
		2,451.5	2,399.7
Current assets			
Inventories		464.0	443.0
Trade and other receivables		375.8	337.9
Cash and cash equivalents		320.6	112.8
		1,160.4	893.7
Liabilities			
Current liabilities			
Trade and other payables		(320.0)	(358.0)
Borrowings and other financial liabilities		(121.9)	(50.9)
Lease liabilities		(12.9)	(12.2)
Provisions	9	(6.1)	(5.5)
Current tax liabilities		(26.9)	(33.3)
		(487.8)	(459.9)
Net current assets		672.6	433.8
Non-current liabilities			
Borrowings and other financial liabilities		(401.8)	(794.6)
Lease liabilities		(79.2)	(78.3)
Other payables		(4.5)	(12.3)
Retirement benefit liabilities	9	(23.1)	(27.4)
Provisions	9	(11.5)	(3.6)
Deferred tax liabilities		(172.9)	(151.4)
		(693.0)	(1,067.6)
Net assets		2,431.1	1,765.9
Equity			
Ordinary share capital		15.1	15.1
Preference share capital		–	1.1
Share capital		15.1	16.2
Share premium account		707.7	707.7
Reserves		1,692.8	1,029.2
Equity attributable to owners of the parent		2,415.6	1,753.1
Non-controlling interests in equity		15.5	12.8
Total equity		2,431.1	1,765.9

Group Statement of Changes in Equity

for the year ended 31 December 2022

	Note	Share capital £m	Share premium account £m	Other reserves £m	Retained earnings £m	Non controlling interests £m	Total equity £m
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 a 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
At 1 January 2022		16.2	707.7	(43.8)	1,073.0	12.8	1,765.9
Profit after tax for the year		–	–	–	649.3	4.0	653.3
Other comprehensive income		–	–	90.9	66.5	0.4	157.8
Total comprehensive income for the year		–	–	90.9	715.8	4.4	811.1
Transactions with owners:							
Dividends on equity shares	6	–	–	–	(144.4)	–	(144.4)
Share-based payments		–	–	–	8.3	–	8.3
Transactions in own shares		–	–	–	(7.3)	–	(7.3)
Total transactions with owners		–	–	–	(143.4)	–	(143.4)
Changes in ownership interests:							
Acquisition of a non-controlling interest		–	–	–	0.3	(1.7)	(1.4)
Total changes in ownership interests		–	–	–	0.3	(1.7)	(1.4)
Preference share capital reclassification		(1.1)	–	–	–	–	(1.1)
Total equity at 31 December 2022		15.1	707.7	47.1	1,645.7	15.5	2,431.1

Other reserves include the Capital Redemption Reserve of £0.9m (2021: £0.9m), the Hedging Reserve of £nil (2021: £3.0m), the Cost of Hedging Reserve of £nil (2021: £(4.9)m) and the Translation Reserve of £46.2m (2021: £(42.8)m). During the year the Group's preference share capital has been reclassified from equity to borrowings and other financial liabilities.

Group Statement of Cash Flows

for the year ended 31 December 2022

	Note	2022 £m	2021 £m
Cash generated by operations			
Adjusted operating profit		515.1	468.6
Exceptional items	2	(36.1)	3.9
Amortisation of intangible assets arising on acquisition		(34.3)	(34.3)
Operating profit		444.7	438.2
Adjustments for:			
Depreciation and amortisation		120.7	113.3
Fair value movement on contingent consideration		(6.1)	(6.2)
Impairments on intangible assets and property, plant and equipment		42.2	1.1
Loss on disposal and write-offs of intangible assets and property, plant and equipment		0.2	5.8
Net provisions charged		1.6	1.6
Share-based payments		(11.0)	29.1
Non-cash pension expense		4.5	–
Share of loss of associate		–	0.7
Cash paid against operating provisions		(0.8)	(2.1)
Movement in inventories		(98.1)	(140.9)
Movement in receivables		(43.3)	(53.2)
Movement in payables		7.6	91.6
Cash generated by operations		462.2	479.0
Interest paid		(23.2)	(19.8)
Tax paid		(130.8)	(111.5)
Net cash generated from operating activities		308.2	347.7
Cash flows from investing activities			
Acquisition of subsidiaries, net of cash acquired		–	(48.9)
Payment of contingent consideration		(13.7)	(9.2)
Purchase of property, plant and equipment		(141.2)	(153.0)
Receipt of government grant		6.1	–
Purchase of other intangible assets		(11.2)	(5.7)
Proceeds from sale of property, plant and equipment		1.7	0.2
Proceeds from business disposal, net of cash in disposed business		583.6	–
Tax paid on business disposals		(4.6)	–
Cash paid against non-operating provisions		(1.2)	(1.1)
Interest received		5.1	1.5
Net cash generated from/(used in) investing activities		424.6	(216.2)
Cash flows from financing activities			
New borrowings		232.6	320.2
Repayment of borrowings		(614.4)	(282.6)
Payment of lease liabilities		(17.4)	(14.4)
Acquisition of non-controlling interest		(1.4)	(0.7)
Net transactions in own shares		(7.3)	(2.4)
Dividends paid to equity shareholders	6	(144.4)	(132.5)
Dividends paid to non-controlling interests		–	(0.2)
Net cash used in financing activities		(552.3)	(112.6)
Net movement in cash and cash equivalents		180.5	18.9
Cash and cash equivalents brought forward		94.3	77.8
Exchange differences		6.8	(2.4)
Cash and cash equivalents carried forward		281.6	94.3
Cash and cash equivalents carried forward comprise:			
Cash at bank and in hand		320.6	112.8
Bank overdrafts		(39.0)	(18.5)
		281.6	94.3

Group Statement of Cash Flows continued

Reconciliation to net debt

	Note	2022 £m	2021 £m
Net movement in cash and cash equivalents		180.5	18.9
Net movement in borrowings and other financial liabilities		399.2	(23.2)
Change in net debt from cash flows		579.7	(4.3)
Loans in acquired businesses		–	(5.7)
Non-cash movement in lease liabilities		(13.4)	(24.1)
Non-cash preference shares reclassification		(1.1)	–
Exchange differences		(37.2)	11.4
		528.0	(22.7)
Net debt brought forward		(823.2)	(800.5)
Net debt carried forward		(295.2)	(823.2)

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 2022 or 2021 but is derived from those financial statements. Statutory financial statements for 2021 have been delivered to the Registrar of Companies and those for 2022 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 consolidated financial statements have been prepared on a going concern basis which the Directors believe to be appropriate for the following reasons:

At 31 December 2022 the Group had £1,122m of committed debt facilities available from its banking group, USPP bondholders and lease providers, with principal maturities between 2023 and 2030, of which £579.3m (2021: £334.4m) was undrawn, together with cash balances of £320.6m (2021: £112.8m).

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. Based on these forecasts, the Group continues to have significant liquidity headroom and strong financial covenant headroom under its debt facilities.

A reverse stress testing scenario has been performed which assesses that adjusted operating profit would need to fall by over 90% to trigger an event of default as at 30 June 2024, before considering additional unmodelled actions to conserve cash. The Directors do not consider this a plausible scenario. The Directors have also considered the impact on the Group from the agreement to acquire Solus Biotech for total consideration of approximately £232m. This acquisition will be funded by the reinvestment of PTIC disposal proceeds and will have no material impact on Croda’s leverage and a limited impact on its liquidity. The Directors have also considered the unlikely scenario that if the full reinvestment of PTIC disposal proceeds was not made within the agreed timelines with the USPP bondholders, certain future financial covenant restrictions could trigger a partial repayment of the USPP bonds. In this event any potential repayment could be funded from cash balances and other existing debt facilities. 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 review of property, plant & equipment remaining useful lives and our evaluation of critical accounting estimates and judgements detailed in note 9 below. None of these risks had a material effect on the consolidated financial statements of the Group. 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.

1. Basis of preparation continued

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 2022 and which are unchanged from the prior year.

(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 2022 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 2023 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 2023 or 1 January 2024 as applicable.

2. Segmental information

The Group's sales, marketing and research activities are organised into three global market sectors, being Consumer Care, Life Sciences and Industrial Specialties. 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.

	2022 £m	Restated 2021 £m
Income statement		
Revenue		
Consumer Care	897.8	763.0
Life Sciences	682.3	572.3
Industrial Specialties	509.2	554.3
Total Group revenue	2,089.3	1,889.6
Adjusted operating profit		
Consumer Care	204.7	188.5
Life Sciences	229.4	208.5
Industrial Specialties	81.0	71.6
Total Group operating profit (before exceptional items and amortisation of intangible assets arising on acquisition)	515.1	468.6
Exceptional items and amortisation of intangible assets arising on acquisition	(70.4)	(30.4)
Total Group operating profit	444.7	438.2

Following the divestment of the majority of the Performance Technologies and Industrial Chemicals business as announced in the 2022 Interim Statement, the retained business now forms a new Industrial Specialties sector. Accordingly, the Group has combined the previously reported segment information for the year ended 31 December 2021 for both Performance Technologies and Industrial Chemicals and shown as Industrial Specialties. This is aligned with the information that is regularly reported 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 £m	North America £m	Latin America £m	Asia £m	Reported Total £m
Revenue 2022					
Consumer Care	353.2	232.5	91.2	220.9	897.8
Life Sciences	297.5	186.1	89.8	108.9	682.3
Industrial Specialties	220.0	111.3	23.1	154.8	509.2
Total Group revenue	870.7	529.9	204.1	484.6	2,089.3
Revenue 2021 (Restated)					
Consumer Care	300.3	210.9	68.6	183.2	763.0
Life Sciences	266.3	167.2	60.9	77.9	572.3
Industrial Specialties	258.7	115.1	24.8	155.7	554.3
Total Group revenue	825.3	493.2	154.3	416.8	1,889.6

Adjustments

	2022 £m	2021 £m
Exceptional items – operating profit		
Business acquisition and disposal costs	–	(13.5)
Pension curtailment gain	–	11.2
Goodwill impairment (note 7)	(34.6)	–
Property, plant and equipment impairment (note 8)	(7.6)	–
Fair value movement on contingent consideration	6.1	6.2
Exceptional items – financial costs		
Unwind of discount on contingent consideration	(1.7)	(3.3)
Gain on business disposal (note 12)	356.0	–
Exceptional items	318.2	0.6
Amortisation of intangible assets arising on acquisition	(34.3)	(34.3)
Total adjustments	283.9	(33.7)

The exceptional items in the current year reflect the gain on business disposal, discount unwind and fair value adjustment both in respect of contingent consideration, the goodwill impairment of the Group's Flavours Cash Generating Unit and an impairment relating to the write-off of unusable manufacturing plant in Japan. 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 gain on business disposal and impairment charges have been presented as exceptional due to their size and one-off nature. The exceptional items in the prior year related to the discount unwind and fair value adjustment both in respect of contingent consideration, a pension curtailment gain (arising from transfer of the Dutch scheme to a collective defined contribution arrangement), acquisition costs and fees incurred in preparation of the disposal of part of the PTIC business.

3. Net financial costs

	2022 £m	2021 £m
Financial costs		
Interest payable on borrowings	17.4	17.7
Net interest on post-retirement benefits	–	0.3
Provision against non-operating loan	–	2.5
Interest on lease liabilities	2.5	2.2
Other bank loans and overdrafts	2.9	2.2
Other interest costs	1.2	–
Unwind of discount on contingent consideration (exceptional)	1.7	3.3
Preference share dividend	0.1	–
	25.8	28.2
Financial income		
Bank interest receivable and similar income	(2.7)	(1.5)
Net interest on post-retirement benefits	(2.4)	–
	(5.1)	(1.5)
Net financial costs	20.7	26.7

4. Tax

	2022 £m	2021 £m
Analysis of tax charge for the year		
United Kingdom current tax	28.1	11.5
Overseas current tax	100.0	95.0
Deferred tax	(1.4)	(17.8)
	126.7	88.7

The adjusted effective corporate tax rate before exceptional items of 22.8% (2021: 21.2%) is significantly higher than the UK's standard tax rate of 19.0%. The reported effective corporate tax rate after exceptional items is 16.2% (2021: 21.6%).

The reported corporate tax rate after exceptional items includes the tax arising on the gain of the PTIC divestment and associated business disposal costs. Whilst the gain was subject to tax in the jurisdictions in which business units were sold, a number of local exemptions have resulted in the overall gain being taxed at a rate significantly lower than the UK's standard tax rate of 19.0%. This has reduced the reported corporate tax rate after exceptional items in the current year.

Croda operates in many tax jurisdictions other than the UK, both as a manufacturer and distributor, with the majority of those jurisdictions having rates higher than the UK, considerably so in some cases. It is principally the exposure to these different tax rates that increases the effective tax rate above the UK standard rate.

5. Earnings per share

	2022 pence	2021 pence
Adjusted earnings per share	272.0	250.0
Impact of exceptional items, amortisation of intangible assets arising on acquisition and the tax thereon	193.8	(20.0)
Basic earnings per share	465.8	230.0

6. Dividends paid

	Pence per share	2022 £m	Pence per share	2021 £m
Ordinary				
Interim				
2021 interim, paid October 2021	–	–	43.5	60.6
2022 interim, paid October 2022	47.0	65.6	–	–
Final				
2020 final, paid June 2021	–	–	51.5	71.8
2021 final, paid June 2022	56.5	78.8	–	–
	103.5	144.4	95.0	132.4
Preference (paid June and December)		–		0.1
		144.4		132.5

The Directors are recommending a final dividend of 61.0p per share amounting to a total of £85.1m in respect of the financial year ended 31 December 2022. Subject to shareholder approval, the dividend will be paid on 26 May 2023 to shareholders registered on 28 April 2023. The total proposed dividend for the year ended 31 December 2022 will be 108.0p per share amounting to £150.7m.

7. Intangible assets

	2022 £m	2021 £m
Opening net book amount	1,271.6	1,311.7
Exchange differences	62.6	(54.6)
Additions	11.0	5.7
Acquisitions	–	48.4
Disposals and write offs	(20.5)	(3.1)
Reclassifications from property, plant and equipment	0.4	0.5
Amortisation charge for the year	(37.3)	(37.0)
Impairments	(34.6)	–
Closing net book amount	1,253.2	1,271.6

During the year goodwill was impaired by £34.6m. This impairment is recorded in the income statement as an exceptional item within operating costs and is within the Consumer Care operating business segment. Intangible asset amortisation is also recorded in operating costs.

8. Property, plant and equipment

	2022 £m	2021 £m
Opening net book amount	988.1	900.8
Exchange differences	72.3	(12.4)
Additions	135.9	153.0
Acquisitions	–	13.0
Disposals and write offs	(155.2)	(2.7)
Reclassifications to intangible assets	(0.4)	(0.5)
Depreciation charge for the year	(68.6)	(63.1)
Impairments	(7.6)	–
Closing net book amount	964.5	988.1

During the year the Group received government grant funding of £6.1m (2021: £nil) relating to the US cGMP scale up project. Also during the year plant and equipment was impaired by £7.6m relating to the write-off of unusable manufacturing plant in Japan. This impairment is recorded in the income statement as an exceptional item within operating costs and is within the Consumer Care (£5.0m) and Life Sciences (£2.6m) operating business segments.

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 completed the divestment of the majority of its Performance Technologies and Industrial Chemicals ('PTIC') business to a wholly owned subsidiary of Cargill Inc. on 30 June 2022. The Group's assessment that the disposal group does not meet the definition of a separate major line of business or geographical area of operations, and therefore is not a discontinued operation, is a key judgement. The key considerations in forming this conclusion were:

- The Group is not exiting a geographical area of operations; Croda will remain active in all territories in which the divested business operates
- Whilst the majority of the PTIC business is being divested, a significant proportion remains with Croda via the retained Industrial Specialties product portfolio, supply agreements and retained production capabilities
- The complex carve-out requirements of the disposal mean that the operations and cash flows of the divested business cannot be distinguished clearly from the remaining Croda Group.

Croda Sipo in which Croda has a 65% shareholding was excluded from the transaction that completed on 30 June 2022. The Group's assessment that Sipo is not available for sale in its present condition is a key judgement in determining that Sipo is not classified as an asset held for sale at 31 December 2022. The sale of Sipo to Cargill Inc. is subject to reaching agreement with our partner to also sell its stake, which now appears unlikely to occur in the near term.

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

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

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 Group's UK pension scheme as a result of a significant rise in corporate bond yields increasing the discount rate to 4.8% (2021: 1.8%). The majority of the Group's retirement benefit asset relates to the Group's UK pension scheme. The UK pension scheme is open to future accrual and therefore the surplus is recognised on the basis that this could be recovered through a reduction in future service contributions. During the period the business divestment resulted in a curtailment gain of £3.9m on cessation of defined benefit accrual, primarily within the Group's UK pension scheme, which has been recognised in the Group Income Statement as part of the gain on business disposal.

	2022 £m	2021 £m
Opening net retirement benefit surplus/(deficit)	7.9	(32.3)
Current service cost	(16.2)	(25.1)
Net interest cost	2.4	(0.3)
Employer contributions	11.5	13.6
Benefits paid	0.2	0.3
Past service cost	3.9	11.2
Remeasurements	88.9	40.6
Acquisitions	–	(0.9)
Business disposal	1.5	–
Exchange movement	–	0.8
Closing net retirement benefit surplus	100.1	7.9
Total market value of assets	969.3	1,340.1
Present value of scheme liabilities	(858.4)	(1,318.7)
Net pension plan asset	110.9	21.4
Post-employment medical benefits	(10.8)	(13.5)
Net retirement benefit surplus	100.1	7.9
Analysed in the balance sheet as:		
Retirement benefit assets	123.2	35.3
Retirement benefit liabilities	(23.1)	(27.4)
Net retirement benefit surplus	100.1	7.9

The sensitivity of the defined benefit obligation to changes in the significant assumptions is as follows:

		Impact on retirement benefit obligation	
	Sensitivity	Of increase	Of decrease
Discount rate	0.5%	-6.3%	7.0%
Inflation rate	0.5%	4.7%	-4.5%
Mortality (assumes a one-year change in life expectancy)	1 year	3.6%	-3.6%

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting year) has been applied as when calculating the retirement benefit obligation recognised in the Group balance sheet.

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

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 by comparing the carrying value of the underlying Cash Generating Units (‘CGUs’) to their recoverable amount calculated by detailed value in use calculations. 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) – set for each CGU with reference to the long-term growth rate for the market and territory in which the CGU operates but not exceeding the Group's long-term average growth rate, estimated at 3%.
- Selection of appropriate market participant real post-tax discount rates to reflect the specific nature of the CGU.
- Specific risk adjusted, real term cash flow projections including key assumptions on revenue growth and operating margins over a 5 year period.

An impairment of £34.6m was recorded in relation to goodwill arising on the acquisition of Iberchem's Flavours business. This principally reflected the impact of significant cost inflation which was not fully recovered, with future value of the business being behind the acquisition case. Previously Fragrances and Flavours cash flow projections were based on 10-year projections that supported the acquisitions, however these have been refreshed in the year based on management's latest view, and capped to a 5 year period to reduce the risk with longer term forecasting, consistent with other CGU's cash flow projections. Due to the changes in the cash flow projections, where applicable, comparative growth rates are not presented. The assumptions underpinning the cash flow projection used in the Flavours value in use calculation reflect management's most recent five-year business plan. These projections use an appropriate view of past experience, specifically that operating margins will improve in the medium to long term and sales growth targets will be achieved resulting in approximately 14% compound average growth rates ('CAGR') at a sales level and 20% EBITDA CAGR over the period.

Excluding Flavours, based on the annual impairment testing performed for all standalone CGUs no impairment has been recognised for the year ended 31 December 2022 and standalone CGUs remain on track to perform to our long-term expectations. In forming this conclusion, the Directors have reviewed sensitivity analysis which considered all reasonably possible downsides on key assumptions, both individually and in combination, and considered whether these would give rise to an impairment. This analysis concluded that no reasonably possible changes in key assumptions would cause the recoverable amount of the Standalone CGUs to be less than the carrying value, other than for the Fragrances and Flavours CGUs.

The estimated recoverable amount of the Fragrances CGU exceeded its carrying value by approximately £111m (2021: £17m) and therefore the Directors concluded that no impairment was required; however, the calculations are sensitive to changes in key assumptions. The key assumptions considered by the Directors, where a reasonably possible change could give rise to an impairment, were the EBITDA CAGR, pre-tax discount rate and long-term growth rate. Sensitivity disclosures for both the Fragrances and Flavours CGUs are set out below.

The recoverable amount, and therefore level of headroom or impairment charge, is predominantly dependent upon judgements used in arriving at the cash flow projections, long-term growth rate, and the discount rate. Although it is not management's current expectation, the impact on the recoverable amount when applying a reasonably possible change in these assumptions would be as follows for the year ended 31 December 2022:

				Flavours				Fragrances
	Assumption	Sensitivity	Increase £m	Decrease £m	Assumption	Sensitivity	Increase £m	Decrease £m
Incremental increase/(decrease) in recoverable amount								
Change in pre-tax discount rate by:	10.5%	1.0%	(21.1)	27.7	10.6%	1.0%	(80.0)	104.7
Change in long-term growth rates by:	3.0%	1.0%	28.5	(20.0)	3.0%	1.0%	109.5	(76.8)
Change in EBITDA compound annual growth rate by:	20.0%	5.0%	39.8	(33.9)	16.0%	5.0%	167.1	(141.3)

The above sensitivity analyses are based on a change in an assumption whilst holding all other assumptions constant. In practice, some of the assumptions may be correlated.

Due to the nature of the Fragrances and Flavours 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. The Group’s other annual impairment tests were not considered to be materially impacted by the climate change risks and opportunities.

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 2022.

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 2022 £m	**Fair value 2022 £m**	Book value 2021 £m	Fair value 2021 £m
US$100m 3.75% fixed rate 10 year note	(83.0)	(74.4)	(74.1)	(78.2)
€30m 1.08% fixed rate 7 year note	(26.5)	(26.3)	(25.2)	(25.5)
€70m 1.43% fixed rate 10 year note	(61.9)	(57.8)	(58.7)	(61.5)
£30m 2.54% fixed rate 7 year note	(30.0)	(29.7)	(30.0)	(30.3)
£70m 2.80% fixed rate 10 year note	(70.0)	(64.8)	(70.0)	(71.9)
€50m 1.18% fixed rate 8 year note	(44.2)	(40.1)	(41.9)	(43.5)
£65m 2.46% fixed rate 8 year note	(65.0)	(58.1)	(65.0)	(65.7)
US$60m 3.70% fixed rate 10 year note	(49.8)	(45.4)	(44.5)	(47.4)

11. Related party transactions

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

12. Business disposal

On 30 June 2022, the Group completed the disposal of the majority of its Performance Technologies and Industrial Chemicals business for cash consideration of £651.0m. The divested business comprised four manufacturing facilities, together with associated laboratory facilities and sales operations, and formed part of Croda's integrated operating model prior to disposal. Refer to note 9 for an explanation of the related critical accounting judgement. The following table summarises the effect of the disposal on the Group's consolidated financial statements.

	£m
Cash consideration received	651.0
Intercompany settlement	(24.1)
	626.9
Assets and liabilities of the divested business	
Intangible assets	20.2
Property, plant & equipment	154.4
Right of use assets	1.1
Inventories	99.7
Trade and other receivables	24.3
Cash and cash equivalents	9.3
Trade and other payables	(35.3)
Lease liabilities	(1.1)
Current tax payable	0.3
Retirement benefit liabilities	(1.5)
Deferred tax	(8.8)
Net assets	262.6
Associated transactions and costs	
Pension curtailment gain	3.9
Disposal and separation costs	(33.9)
Foreign exchange gains	6.9
Reclassification of currency translation	14.8
Gain on business disposal before tax	356.0
Income tax on business disposal	(21.5)
Gain on business disposal after tax	334.5

Disposal and separation costs primarily comprise investment banking fees, legal fees, external consultant support for financial, tax and operational aspects of the transaction as well as related employee bonuses. The gain on business disposal includes foreign exchange gains that resulted from the settlement of proceeds and associated intercompany balances across the Group shortly following completion.

Income tax payable on the gain on business disposal has been calculated on a jurisdiction-by-jurisdiction basis, applying the relevant corporation tax rates and exemptions.

13. Post balance sheet events

Subsequent to 31 December 2022, the Group signed an agreement to acquire Solus Biotech, based in South Korea, for total consideration of KRW350bn (approximately £232m). The transaction is subject to regulatory approval and had no impact on the Group's 2022 financial statements.