CRODA

Press Release

27 February 2024

Results for the year ended 31 December 2023

Strategic delivery in a challenging macroeconomic environment; well positioned for market recovery

Croda International Plc ("Croda" or the "Group") announces its full year results for the year ended 31 December 2023.

Highlights

	Statutory results (IFRS)			Adjusted results			Pro forma estimates[1]	
Full year ended 31 December	**2023**	2022	change	**2023**	2022	change	2022 pro forma	Pro forma change
Sales (£m)	1,694.5	2,089.3	(18.9)%	1,694.5	2,089.3	(18.9)%	1,898	(11)%
Operating profit (£m)	247.5	444.7	(44.3)%	320.0	515.1	(37.9)%	476	(33)%
Operating margin (%)				18.9	24.7	(5.8)ppts	25	(6)ppts
Profit before tax (£m)	236.3	780.0	(69.7)%	308.8	496.1	(37.8)%	463	(33)%
Basic earnings per share (p)	122.5	465.8	(73.7)%	167.6	272.0	(38.4)%		
Ordinary dividend per share declared (p)	109.0	108.0	0.9%					
Free cash flow (£m) restated[2]				165.5	157.4	5.1%		
Net debt (£m)				537.6	295.2	(82.1)%		

[1]Pro forma (pf) 2022 estimated results have been adjusted for the divestment of the majority of Performance Technologies and Industrial Specialities (PTIC) on 30 June 2022 so that they exclude the divested business from the entirety of 2022.
[2]2022 free cash flow has been restated in line with the revised definition on page 4.

2023 performance impacted by prolonged destocking and a weak macroeconomic environment

- **Sales down 11% on a pro forma basis as customers reduced inventory levels across multiple markets**
  - Consumer Care sales down 1% with underlying sales down 11% in Beauty Care, 1% lower in Beauty Actives and Home Care, and up 18% in lower-margin F&F business
  - Life Sciences sales 5% lower, excluding Covid-19 lipid sales, with sales up 3% in Pharma on that basis, up 9% in Seed Enhancement and down 19% in Crop Protection due to continued destocking
  - Pro forma sales down 35% in Industrial Specialities reflecting destocking and reduced demand
- **Adjusted profit before tax down 33% to £308.8m (2022 pf: £463m) in line with updated expectations**
  - 18.9% adjusted operating margin (2022 pf: 25%) due to the negative operating gearing impact from lower sales volumes, lower Covid-19 lipid sales and the negative mix impact of strong F&F sales
  - Implemented immediate actions to protect profits; employee costs broadly flat, freight and energy lower
- **£236.3m IFRS profit before tax (2022: £780.0m); prior period benefitting from £356.0m divestment profit**
- **Strong balance sheet underpins ongoing investment and shareholder returns**
  - £162.9m improvement in working capital; free cash flow up 5% to £165.5m (2022 restated: £157.4m)
  - £537.6m net debt (2022: £295.2m) post Solus Biotech acquisition; leverage at 1.3x
  - 1p increase in full year dividend with 32 years of unbroken dividend progression

Megatrends intact; continued strategic investment through the downturn; well positioned for market recovery

- **Consumer Care – leadership in innovation and sustainability driving customer demand**
  - Sales of new and protected products (NPP) improved to 42% of total sales (2022: 41%)
  - Strong demand for sustainable and lower carbon ingredients – ECO sales up over 20% and first sales of biotech-derived ceramides
  - Prioritising investment in Asia, particularly China and India, where sales grew 12%; new R&D labs in Shanghai and manufacturing site in India to be commissioned in 2025

- **Life Sciences – excellent progress building industry-leading positions in high-growth markets**
    - New Pharma delivery systems, including vaccine adjuvants, bioprocessing aids and phospholipids, supporting rapid expansion of customer drug pipelines
    - Scaling up Pharma; new R&D lab in India and capacity for nucleic acid delivery on-stream in 2025
    - Seed Enhancement winning market share through leadership in microplastic-free coatings

- **Simpler operating model implemented to enhance customer responsiveness**

Reported sales	**2023 £m**	Price/mix	Volume	Acquisition	Currency	Change	2022 £m
Consumer Care	886.1	1.9%	(3.6)%	1.0%	(0.6)%	(1.3)%	897.8
Life Sciences	602.3	3.2%	(15.4)%	0.7%	(0.2)%	(11.7)%	682.3
Industrial Specialties	206.1	(3.9)%	(55.1)%	0.0%	(0.5)%	(59.5)%	509.2
Group	1,694.5	10.9%	(30.0)%	0.6%	(0.4)%	(18.9)%	2,089.3
Estimated pro forma sales							
Group	1,695	11%	(30)%	1%	(1)%	(19)%	2,089
Pro forma adjustment							(191)
Group (pro forma)	1,695	5%	(16)%	1%	(1)%	(11)%	1,898

Adjusted profit	**2023 £m**	Full year ended 31 December Underlying growth £m	Acquisition impact £m	Currency impact £m	2022 £m	Change
Consumer Care	160.3	(41.3)	0.4	(3.5)	204.7	(21.7)%
Life Sciences	150.3	(73.9)	0.0	(5.2)	229.4	(34.5)%
Industrial Specialties	9.4	(70.0)	0.0	(1.6)	81.0	(88.4)%
Operating profit	320.0	(185.2)	0.4	(10.3)	515.1	(37.9)%
Net interest	(11.2)				(19.0)	(41.1)%
Profit before tax	308.8				496.1	(37.8)%

Estimated pro forma profit	**2023 £m**	2022 £m	Change
Operating profit	320	515	(38)%
Pro forma adjustment	-	(39)	
Operating profit (pro forma)	320	476	(33)%
Net interest	(11)	(13)	(15)%
Profit before tax (pro forma)	309	463	(33)%

Steve Foots, Chief Executive Officer, commented:

"Our performance this year reflects the prolonged destocking and weaker macro environment that has followed two record years post the pandemic. Despite the financial impact of this ongoing uncertainty, the technology trends that will drive our future growth have not changed with a continued transition to sustainable ingredients and biologics. We have successfully realigned our portfolio with these megatrends and our strategy is delivering with continued customer demand for innovation and sustainable ingredients.

"In Consumer Care, sales of new and protected products increased, and F&F outperformed once again. In Life Sciences, our Pharma business is leading the industry in biologics drug delivery with more partnerships and product launches strengthening our pipeline. Despite the challenging macroeconomic backdrop, we have continued to invest for the future, adding biotech-derived active ingredients to our portfolio through our acquisition of Solus Biotech and expanding capacity in Pharma whilst maintaining strict capital and cost discipline.

"With our strong balance sheet, improving cash flow and consistent investment in our refocused portfolio, Croda is well positioned to take advantage of the demand recovery when it occurs. We expect the Group's performance to accelerate from 2025, generating continued increasing returns for our shareholders."

Outlook

Consumer Care has started the year well and we are cautiously optimistic about the improving demand trend we experienced in January. Within Life Sciences, we expect the non-Covid Pharma business to grow but that destocking will continue in Crop Protection. Demand in Industrial Specialties is expected to remain weak.

Given the ongoing uncertainty in our end markets, the recovery trajectory for each of our business units remains difficult to predict and the range of possible outcomes in 2024 is therefore wider than usual at this stage of the year. Overall, however, the Group expects to deliver mid to high single digit percentage sales growth in 2024, excluding the c.$60m of Covid-19 lipid sales in 2023, with higher sales volumes more than offsetting lower price/mix.

We expect 2024 Group adjusted operating margin to be two to three percentage points lower than 2023 due to the following:

- Different business mix effects year-on-year, with no Covid-19 lipid contribution and continued strong growth in Fragrances and Flavours.

- Low overhead recovery is expected to persist as sales volumes remain depressed in Crop Protection and Industrial Specialties, two of the three businesses with the highest production volumes, alongside Beauty Care.

- To support the return to sales growth, the cost base will reset back to a more normalised level from its low point in 2023. This will include the likely unwind in 2024 of the c.£25m benefit we saw in 2023 from a negligible variable remuneration charge. Some of this will be offset by modest cost savings from our recent reorganisation.

- We will continue to invest to support our long-term strategy. Customer interest in innovation and sustainable ingredients remains strong, despite the current destocking cycle.

Using these assumptions and at current exchange rates, we expect Group adjusted profit before tax to be between £260m and £300m in full year 2024.

Croda will report sales performance quarterly during 2024 and we will provide an update on first quarter trading at the AGM on 24 April 2024. Croda expects to return to its normal cycle of half yearly reporting in 2025.

Further information:

An investor presentation will be available via webcast at 0900 GMT on 27 February 2024 at www.croda.com/investors.

For enquiries contact:

Investors:	David Bishop, Croda	+44 7823 874428
Press:	Charlie Armitstead, Teneo	+44 7703 330269

Notes:

Alternative Performance Measures (APMs): We use a number of APMs to assist in presenting information in this statement. 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. 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. The definition of constant currency profit has been revised in the year to reflect the impact on the Group of its operations in hyperinflationary countries. Constant currency results are reconciled to reported results in the review of financial performance below. The APMs are calculated as follows:
    a. For constant currency profit, translation is performed using the entity reporting currency before the application of IAS 29 hyperinflation and any associated one-off foreign exchange gains or losses;
    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 comparison. They are seen as similarly useful to shareholders in assessing the performance of the business. Underlying results are reconciled to reported results in the Finance Review;

- Pro forma results: these reflect the current year performance measured against 2022 adjusted for the estimated impact of the divestment of the majority of Performance Technologies and Industrial Chemicals on 30 June 2022. Given the divested business did not meet the requirements for classification as a discontinued operation, the first half of 2022 included the full PTIC business and the second half year only included the retained business. The Board believes that the pro forma information assists shareholders by providing a meaningful basis upon which to analyse business performance and make year-on-year comparisons. Pro forma analysis is used by management for budgeting and reporting purposes including the internal assessment of operating performance across the Group. In the first half of 2022, it is estimated that the divested operations contributed revenue of £191m, adjusted operating profit of £39m and adjusted profit before tax of £33m. Pro forma results are presented on a rounded basis due to the estimated nature of the measures. The level of estimation risk in arriving at the pro forma numbers is not considered material for the Group. Pro forma adjustments only impact Industrial Specialties and the Group, with no changes to Consumer Care or Life Sciences;

- Adjusted results: these are stated before exceptional items (as disclosed in the review of financial performance below) and amortisation of intangible assets arising on acquisition, and tax thereon. The Board believes that the adjusted presentation (and the columnar format adopted for the Group income statement) assists shareholders by providing a meaningful basis upon which to analyse business performance and make year-on-year comparisons. The same measures are used by management for planning, budgeting and reporting purposes and for the internal assessment of operating performance across the Group. The adjusted presentation is adopted on a consistent basis for each half year and full year results;

- Operating margin or return on sales: this is adjusted operating profit divided by sales, at reported currency. Management uses the measure to assess the profitability of each sector and the Group, as part of its drive to grow profit by more than sales value, in turn by more than sales volume, as set out in the Chief Executive's Review;
- Return on invested capital (ROIC): this is adjusted operating profit after tax divided by the average adjusted invested capital. Adjusted invested capital represents net assets adjusted for net debt, net retirement benefit assets/(liabilities), earlier goodwill written off to reserves and accumulated amortisation of acquired intangible assets. The definition of ROIC has been revised in the year to exclude the Group's net retirement benefit balances from invested capital, given they are not operating in nature. Comparative information has been restated to reflect the new definition, resulting in restated ROIC of 14.4% for 2022 (previously 14.1%). 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, with its aim being to maintain a ROIC of at least two times the cost of capital over the cycle, and that it is useful to shareholders in assessing the superior returns delivered by the Group and the impact of deploying more capital to grow future returns faster;
- Net debt: comprises cash and cash equivalents (including bank overdrafts), current and non-current borrowings and lease liabilities. Management uses this measure to monitor debt funding levels and compliance with the Group's funding covenants which also use this measure. It believes that net debt is a helpful additional measure for shareholders in assessing the risk to equity holders and the capacity to invest more capital in the business;
- Leverage ratio: this is the ratio of net debt to Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA) adjusted to include EBITDA from acquisitions or disposals in the last 12 month period. EBITDA is adjusted operating profit plus depreciation and amortisation. 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 net cash generated from operating activities adjusted for the cash effect of exceptional items less net capital expenditure and payment of lease liabilities, plus interest received. The definition of free cash flow has been revised in the year to better align with the most directly reconcilable line in the Group's IFRS cash flow statement. Comparative information has been restated to reflect the new definition resulting in restated free cash flow of £157.4m for 2022 (previously £167.4m). 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

We use a number of Alternative Performance Measures to assist in presenting information in this statement which are defined on page 3. Pro forma 2022 estimated results have been adjusted for the divestment of the majority of Performance Technologies and Industrial Chemicals (PTIC) on 30 June 2022 so that they exclude the divested business from the entirety of 2022.

A challenging year with destocking and a weaker macro environment

Croda's performance in 2023 reflects challenging market conditions throughout the year with customer destocking and weaker economic conditions. It follows a record performance in 2021 and 2022 when the Group significantly benefitted from customers building up inventory levels in the face of strong consumer demand, escalating prices and supply chain disruption. As central banks raised interest rates to manage inflation and market conditions softened, customers subsequently reduced inventory levels, albeit at different times across the different market segments and geographies that we serve. For Croda and the wider chemical industry, this resulted in a prolonged period of destocking that was unprecedented in the breadth of its impact across most markets, compounded by a slower economic recovery in China than some of our customers had anticipated.

As a consequence, sales volumes were down across all sectors. Adjusting for the divestment of the majority of the Performance Technologies and Industrial Chemicals (PTIC) business to Cargill on 30 June 2022, Group sales fell by 11% on a pro forma basis to £1,694.5m (2022 pro forma (pf): £1,898m), comprising positive price/mix, lower volumes, a contribution for the Solus Biotech acquisition completed in July and a small headwind from currency translation.

In 2023, average customer inventories were below 2022 levels but remained elevated compared to pre-pandemic levels. In Consumer Care, indications are that destocking has largely worked its way through the supply chain with a slow improvement in sales volumes in the year. By contrast, weak industrial demand globally impacted Industrial Specialties where volumes remained weak. Similarly, customers in agriculture markets continued to reduce inventory levels throughout the second half year having started destocking in the second quarter, later than in other markets. In Pharma, our ability to react quickly with valuable lipid technology allowed us to support mRNA vaccine sales through the Covid-19 pandemic. Inevitably, as Covid demand fell, this resulted in lower shipments in 2023, contributing to just over half of the Life Sciences variance from prior year, but we still supplied c.$60m of Covid lipids in 2023 (2022: c.$120m). The Covid experience did allow us to establish our technology and provided us with valuable insights, facilitating resilient non-Covid sales as customer drug pipelines continue to develop.

Significant volume declines across most of our markets at a similar time led to low levels of capacity utilisation at our manufacturing sites, particularly those that produce ingredients for multiple business units, with negative operating leverage impacting profit margins. Whilst there are likely to be some bounce-back costs as trading normalises, there are also opportunities for margin expansion from higher sales volumes and improved mix particularly if the recovery is broad-based across our markets.

IFRS operating profit was £247.5m (2022: £444.7m) and adjusted operating profit was £320.0m (2022 pf: £476m), adjusting for the one-off exceptional items outlined in the Finance Review. The adjusted operating margin of 18.9% (2022 pf: 25%) was negatively impacted by the operating leverage effect of the reduction in volumes and lower sales of high-margin lipid systems for Covid-19 vaccine applications. Profit before tax (on an IFRS basis) was £236.3m (2022: £780.0m), with the prior year including a gain on the PTIC business divestment of £356.0m, and adjusted profit before tax was £308.8m (2022 pf: £463m).

Despite the impact of the prevailing macroeconomic uncertainty, the technology trends that will drive our future growth have not changed with a continued transition to sustainable ingredients and biologics. We have successfully realigned our portfolio with these megatrends and are making strategic progress with continued investment through the downturn in R&D and capacity. Demand for innovation has remained strong among our customers, which will be key to driving a recovery in Croda's performance as the macro-environment improves. Sales of New and Protected Products (NPP) held up well at 34% of total sales (2022: 35%), with an increase in the proportion of NPP sales in Consumer Care. Customer demand for our ingredients that are differentiated by their sustainability characteristics has also been resilient with sales of ECO surfactants, for example, up by more than 20% year-on-year.

Our commitment to sustainability is demonstrated by the progress we have continued to deliver in our non-financial performance. We remain on track to meet our 2030 Science Based Targets for emissions reduction, the Croda Foundation has already sustainably improved the lives of more than 22 million people and we delivered more than 4,500 hours of training to leaders as we embed safety as a value. Our sustainability leadership was recognised by CDP, which awarded us leadership status for the first time, complementing our long-standing triple A rating from MSCI.

Managing challenging market conditions

To mitigate the impact of tough trading conditions, we took some immediate actions to actively manage cash flow and address costs to protect profitability, while increasing customer sales activity to drive incremental sales growth. Production schedules were optimised to meet lower demand, reducing energy and freight costs. Underlying employee costs were broadly flat as inflation-based salary increases were offset by a hiring freeze and natural attrition. In addition, Group margin benefitted by one and a half percentage points due to negligible charges for variable remuneration. Cash flow improved through proactive management of working capital and our balance sheet remains strong, enabling us to pay an increased full year dividend and to continue to invest the £665m proceeds from the divestment of PTIC, the business we sold in 2022.

Alongside these temporary cost reduction measures, we have been driving improvements that will deliver sustained benefits to our operational effectiveness over the longer term. Priorities have included consolidating our site footprint and delivering our 'doing the basics brilliantly' programme to drive ongoing efficiencies. This programme will improve customer experience and employee productivity through a combination of customer insights, digital technology, and streamlined processes. Our customer net promoter score (NPS) has improved further from +23 in 2022 to +34 in 2023.

Following rapid portfolio transition in recent years through the acquisitions and divestments we have made, a new organisational structure has been in place since the start of 2024 to further streamline our operating model. Previously, the Consumer Care and Life Sciences sectors were responsible for strategy whereas the regions were responsible for performance. Now, all regional teams, including sales, R&D, marketing, customer service and manufacturing, report directly into Consumer Care and Life Sciences. The Presidents of these sectors are now fully accountable for their performance and strategy including innovation, sustainability and the acquisition of technologies aligned with our strategic priorities. This clarifies accountability, simplifies the organisation for our employees, is more cost efficient and will ensure we deliver faster and more effectively for our customers, positioning us well to take advantage of the recovery.

Regional summary

Key drivers of performance were similar globally in 2023, notably a slow but steady improvement in Consumer Care in the second half year as customers worked through heightened inventory levels but a weakening performance in Life Sciences mainly driven by rapid destocking by Crop Protection customers which began in the second quarter. Performance in Asia reflected these global drivers, with Consumer Care improving and Life Sciences weakening during the year. Despite demand in China not recovering as quickly as some of our customers had anticipated, our direct Consumer Care sales to China were robust, partly owing to strong relationships with regional customers who value our innovation expertise. Sales fell in North America although the declines were less significant in the second half year and we began to win back some sales in Consumer Care which were lost in 2022 through our inability to supply ingredients for certain periods. Consumer Care sales grew in Europe, particularly in Beauty Care and Home Care. Latin America was the strongest region but saw adverse impacts from destocking in Crop Protection as well as significant currency movements during the second half year.

Sector summary

Consumer Care – leadership in innovation and sustainability driving demand

Consumer Care sales fell 1% to £886.1m (2022: £897.8m) with strong double-digit percentage sales growth in Fragrances and Flavours (F&F) but lower underlying sales in Beauty Actives, Beauty Care and Home Care. Price/mix was up 2%, mainly due to a positive mix impact from Beauty Actives, with pricing broadly flat. Sales volumes were down 4% year-on-year but were up 9% in the second half year compared with the second half of 2022. Acquisitions added 1% due to sales of ceramides following the Solus Biotech acquisition, with foreign currency translation a small headwind for the full year.

IFRS operating profit was £127.8m (2022: £144.5m) and adjusted operating profit was £160.3m (2022: £204.7m), resulting in adjusted operating margin reducing to 18.1% (2022: 22.8%). Four and a half percentage points of the margin decline was due to the operating gearing effect of continued weak volumes in Consumer Care, compounded by lower volumes in Life Sciences and Industrial Specialties which share the same manufacturing assets, with overheads therefore allocated across all sectors. Two percentage points of the margin decline was due to weaker mix, primarily as a result of strong growth of lower margin F&F sales, with the lower variable remuneration charge and earn out accrual release providing a two percentage point offset.

In Consumer Care, our leadership in sustainability and innovation continues to drive customer demand for Croda's differentiated ingredient portfolio. NPP improved to 42% of total sales (2022: 41%) and sales of sustainable ingredients such as ECO surfactants and biotech-derived ingredients were stronger than other ingredients in our portfolio. To support demand for lower carbon ingredients, we can now provide carbon footprint data for three quarters of the Beauty Care portfolio so that customers can quantify the benefits associated with using our ingredients in their products. Sales to Asia exceeded sales to North America for the first time with significant potential for further growth. We are prioritising the region for investment in R&D and manufacturing, particularly in China and India where underlying sales grew 12%.

The stand-out performer in 2023 was F&F which delivered 18% underlying sales growth, benefitting from its distinctive positioning in fast-growing markets and agile, cost competitive model. F&F sales were up in all product categories and established regions, with the Middle East particularly strong. F&F's excellent sales growth principally reflects its high exposure to local and regional customers outside North America and Europe, as well as sales synergies that are being realised under Croda's ownership.

In Beauty Actives, reported sales were up 4% or down 1% on an underlying basis (i.e. excluding the Solus Biotech acquisition). Positive mix helped offset weaker volumes as sales of Sederma active ingredients grew, particularly in China, whereas sales of lower value botanical ingredients fell. Beauty Actives supported customer product launches including the new Boots No7 Future Renew range and a new Deciem product that repairs scars caused by acne. Having completed our acquisition of Solus Biotech in July, we are excited about the opportunities that the addition of further fermentation-derived active ingredients, notably ceramides, are starting to open up.

Performance remained weakest in Beauty Care with sales down 11% driven by lower volumes. Our approach here is to manage sales volumes in the less differentiated parts of the portfolio to help base-load our manufacturing assets and cover fixed costs, while accelerating differentiation by driving innovation, enhancing the sustainability profile of our ingredients, and transitioning our manufacturing processes to biotech and other low carbon technologies. The 20% plus growth in sales of ECO surfactants during a challenging year, and a continued increase in sales of sulphate-free 'clean' surfactants, illustrate continued customer demand for bio-based, lower carbon and biodegradable ingredients.

The recovery of sales volumes in Home Care accelerated as the year progressed, with underlying sales down 1% year-on-year but up 12% in the second half compared with the second half of 2022. Once again it was sales of innovative ingredients differentiated by sustainability that led the way, including our range of biopolymers which extend the life of fabrics with future growth underpinned by a long-term contract with a key customer.

Life Sciences – continued progress building industry-leading positions in high-growth markets

Life Sciences sales were down 12% to £602.3m (2022: £682.3m), with approximately seven percentage points of the reduction due to lower sales of lipid systems for Covid-19 vaccine applications. On a reported basis, positive price/mix of 3% partly offset a 15% decline in volume, the majority of which was due to destocking by Crop Protection customers with a small effect from similar trends in consumer health. There was also a contribution from six months of phospholipid sales following completion of the Solus Biotech acquisition in July and a small foreign currency headwind.

IFRS operating profit was £131.7m (2022: £220.3m) and adjusted operating profit was £150.3m (2022: £229.4m), resulting in an adjusted operating margin of 25.0% (2022: 33.6%). Six percentage points of the margin reduction was the result of adverse price/mix mainly due to lower Covid lipid sales, and four percentage points was the result of the negative operating leverage effect of lower volumes, mainly in Crop Protection, partly offset by the benefit from a negligible variable remuneration charge.

Crop Protection is developing sustainable crop care solutions as well as delivery systems for biopesticides, launching two new delivery systems, one specially designed for biologicals and the second for drone delivery. Following an exceptional 2022, when Crop Protection delivered both strong double-digit percentage volume growth and price/mix, the business started the year with good momentum, but began to experience rapid customer destocking in the second quarter. Volume weakness continued throughout the second half year, to fall 21% year-on-year with a small offset from positive price/mix, resulting in sales falling 19% overall. In Seed Enhancement, most sales are derived from providing just-in-time enhancement services for vegetable seeds so the business only saw a limited impact from destocking, delivering 9% sales growth driven by strong structural growth trends. Seed Enhancement is winning market share through its leadership in microplastic-free seed coatings which are in high demand following the EU's decision to ban the use of microplastics in agriculture in the next five years.

Pharma continued to make good progress with its industry-leading position in biologics drug delivery as well as recent partnerships and new product launches further strengthening the pipeline of opportunities. Pharma sales fell 11% but grew 3% excluding lipid sales for Covid-19 vaccine applications. Whilst we were not immune from the challenges impacting the market, including customers reducing inventory levels, Covid normalisation and funding constraints for early-stage biotech companies, the breadth and diversification of our pharma portfolio enabled the business to deliver a resilient performance. Destocking primarily affected the heritage consumer health business where customer products are often sold over the counter, with lower Covid-19 demand adversely impacting Adjuvant Systems sales as well as lipids for Covid-19 mRNA vaccines. By contrast, drug delivery technologies for Small Molecule, Protein and Nucleic Acid applications continued to grow.

To drive the growth of Protein/Small Molecule Delivery we opened an applications centre in 'Genome Valley', Hyderabad, India, and launched our first processing aid for biopharma (technologies which are integral to the production of therapeutic proteins) which secured its first sales within three months of launch. The future growth of Adjuvant Systems will benefit from the launch of a new proprietary lipid-based adjuvant and two new adjuvant partnerships agreed with Amyris and BSI. One of these is for a sustainable squalene adjuvant that is produced by fermentation, which is already being qualified by three major vaccine companies. In Nucleic Acid Delivery, shipments of c.$60m of lipid systems to our principal Covid vaccine customers occurred as planned at the end of the fourth quarter, benefitting sector operating profit margin. Continued growth will be driven by the commercialisation of new nucleic acid drugs with the number in development continuing to expand, and Croda supporting most of those that specify a lipid delivery system. The strong medium-term growth trajectory for Nucleic Acid Delivery is likely to be realised in three phases: firstly, mRNA vaccines for infectious diseases, where we are working closely with the Big Pharma companies driving this development; secondly, oncology applications which require more targeted delivery systems; and thirdly, gene editing therapies such as a CRISPR treatment for sickle cell anaemia which we are supporting and was recently approved by the US FDA.

Industrial Specialties – contributing to the efficiency of our manufacturing assets

Following the PTIC divestment, the retained business became Industrial Specialties (IS), operating a supply contract to the new owner of the divested business and contributing to the efficiency of our shared manufacturing site model by helping to optimise utilisation rates. On a pro forma basis, sales fell 35% to £206.1m principally due to lower volumes, reflecting destocking and weak industrial demand globally, and limiting the ability of IS to help optimise site utilisation. Pro forma adjusted operating profit fell 78% to £9.4m as negative operating leverage compounded the impact of lower volumes. The impact of these adverse market conditions on the SIPO joint venture in China resulted in a goodwill impairment charge of £20.8m taken at the 30 June 2023 balance sheet date. Including the impairment charge, the reported IFRS operating loss was £12.0m (2022: £79.9m profit), with the prior period including the full contribution from the divested business.

Continued balance sheet strength

Our focus on active cash flow management in 2023 delivered excellent results with improved free cash flow reflecting a £29.1m working capital inflow (2022: £133.8m outflow) more than offsetting lower profit and higher capex. In particular, we focused on managing down our own inventories, with stock days falling approximately 20% during 2023. We expect our finished goods inventories to be back to pre-pandemic levels by the end of the first quarter of 2024, mitigating the risk that selling from stock (manufactured from higher cost raw materials) has a detrimental impact on profit margins.

With improved free cash flow of £165.5m (2022 restated: £157.4m), our balance sheet remains strong and we closed the year with net debt of £537.6m (2022: £295.2m), including the £227.4m consideration paid on completion of the Solus Biotech acquisition in July 2023. The resulting debt leverage ratio was 1.3x (2022: 0.5x), within our one to two times target range, despite the lower EBITDA.

Given the challenging market conditions, we reviewed the pace of in-flight capital expenditure projects, as well as all new proposals for non-safety-critical projects, whilst continuing to invest in our refocused portfolio to drive profitable growth. This resulted in some capital expenditure originally planned for 2024 being delayed until 2025. Organic capital expenditure in 2023 was broadly as expected at £170.1m (2022: £138.5m), focused on growing our R&D capability, in Asia especially, and expanding our manufacturing footprint to increase capacity.

With our strong balance sheet, we have been able to continue to invest despite the weaker macroeconomic environment. R&D investment included a new Consumer Care laboratory in Shanghai, China and a new applications centre in Hyderabad, India to support growing demand for protein and small molecule delivery from pharma customers. With our Pharma business a top priority for capital allocation, we also opened an adjuvant systems lab in Denmark and are due to expand our R&D capabilities for nucleic acid delivery at Alabaster in the USA and in Singapore in 2024.

Alongside investments that help deliver the carbon reduction roadmaps that we have put in place for all Croda sites, we have also invested in capacity expansion focused on Asia, including starting construction of a new surfactants plant in Dahej, India, and the first stage of a £30m investment in a combined Beauty Actives and F&F manufacturing facility in Guangzhou to grow domestic sales in China. In addition to our typical capital investment of around 6-8% of sales, we are investing an extra £175m over the period 2021 to 2024 to scale up Pharma production, particularly to meet forecast market demand for new nucleic acid drugs which are widely expected to come to the market from 2025, with the US and UK Governments co-investing up to an additional £75m combined. We have invested over £110m in the programme to date. As a result of the review of phasing of current capital projects, total capital expenditure is expected to fall slightly in 2024, but with heightened levels of capex (compared to the pre-2021 period) continuing through 2025 as the Pharma facilities are built and capacity in Asia comes on-stream.

We complement organic investment with selective acquisitions of adjacent technologies, particularly those which can accelerate our transition to greater use of natural raw materials or build new technology platforms, enhancing future growth. The acquisition of Solus Biotech from Solus Advanced Materials has excellent alignment with our strategic priorities, expanding our Asian manufacturing capability, adding a new biotechnology R&D hub in the region, and providing our Beauty Actives and Pharma businesses with access to Solus' existing biotech-derived ceramide and phospholipid technologies, and its emerging capabilities in natural retinol. We will drive sales growth by leveraging Croda's global selling network and formulation science expertise.

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. With 32 years of unbroken dividend progression, consistent distribution to shareholders is a critical consideration for the Board. Therefore, despite temporarily taking us outside our stated through-the-cycle payout ratio of distributing 40-50% of earnings, we have proposed a small increase in the full year dividend at 109p a share (2022: 108p). The Board is keeping the Company's future capital requirements under close review.

Strategy – megatrends intact; continued strategic investment through the downturn; well positioned for market recovery

Strategy overview

Despite the challenging market conditions in 2023, the technology trends that will drive our future growth have not changed with continued demand for sustainable ingredients and a continued transition from small molecule active ingredients to large molecule biologics. Through the acquisitions and divestments we have made in recent years, we have successfully realigned our portfolio with these megatrends and our strategy of combining sustainability leadership with market-leading innovation is unchanged.

In line with our Purpose of using Smart science to improve lives™, we enable customers to realise their sustainability ambitions through the application of our innovation and the creation of sustainable ingredients. 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 leadership delivers benefits that are increasingly valued by our customers; for example, we can now provide cradle-to-gate product-level carbon footprint data for approximately 1,300 of our ingredients so that customers can quantify the benefits associated with using them in their products. We are continuing to expand this data set to cover more of our ingredient portfolio and a broader range of sustainability factors.

Innovation is at the heart of what we do, creating new market and technology niches. We filed more than 100 new patents in 2023 and have stepped up our rate of innovation through more external partnerships, for example with Amyris and BSI for sustainable vaccine adjuvants. Even in the unprecedented market conditions that we have seen this year, customers are continuing to invest in new product development, drawing on Croda's deep scientific expertise and application-focused innovation. 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. Our R&D teams now report directly into Consumer Care and Life Sciences, ensuring that our priorities are customer driven. This is complemented by 'big bet' projects often delivered with partners from our open innovation network which provides access to universities and SMEs, helping develop new intellectual property.

Strategic priorities

We are implementing specific strategic priorities to ensure our refocused portfolio delivers consistent top and bottom-line growth. Alongside our sector strategies we are (1) *scaling biotech*, (2) exploring *acquisition opportunities* to supplement organic capital deployment, (3) investing *in fast growth in Asia*, and (4) improving our customer and employee experience through our *'doing the basics brilliantly'* programme.

'Scaling biotech' will transform our approach to sustainability, particularly in reducing customers' scope 3 carbon emissions. Projects are underway to develop bio-based fragrance ingredients, prioritising aroma chemicals which are used in a high proportion of our fragrance references. Our Beauty Care business is adding biotech-derived surfactants to our existing ECO range, and Beauty Actives is launching novel anti-ageing actives developed through collaboration between our biotech and high throughput screening centres in the UK, France and Canada. This is one example of how Croda is reinforcing its leadership in biotechnology, established over more than a decade in plant cell cultures and fermentation, and now being enhanced by investment in processing for scale up, biocatalysis and synthetic biology.

We are supplementing our organic investment with '*acquisitions'*, where our global scouting network identifies potential adjacent technology opportunities in Consumer Care and Life Sciences with the acquisition of Solus Biotech in South Korea completed in the year.

There are significant emerging opportunities for Croda across Asia particularly in consumer care and pharmaceutical markets. We are driving '*fast growth in Asia'*, by investing in innovation and sales resource plus selective expansion in manufacturing.

Our *'doing the basics brilliantly' programme* is simplifying our operating processes to improve employee productivity and driving efficiencies within our well-established customer-centric model including a new online ordering portal complemented by more self-serve data for customers. The programme is delivering good results including a 6% improvement for 'ease of doing business' alongside a further increase in overall net promoter score in our latest customer survey.

Sector strategies

Our sector strategies are to *'strengthen to grow' Consumer Care* and *'expand to grow'* Life Sciences. We are '*strengthening to grow' Consumer Care* to be the most innovative, sustainable and responsive solution provider globally. Even in the current trading environment, demand for innovation remains strong and we are continuing to enhance our portfolio by adding more fermentation-derived ingredients and high-performance replacements for fossil-based products. Similarly, we are broadening our unrivalled ability to substantiate ingredient claims to include product-level carbon footprint data, incorporating the impact of decarbonisation to 2030. Finally, the continued fragmentation of consumer markets plays to our strengths as we partner with customers large and small globally, enabling smaller customers to partner with us to launch their products quickly.

The move to biologics is the key structural driver of growth in both pharmaceutical and agriculture markets over the next decade, and we are *'expanding to grow' Life Sciences* to empower biologics delivery. In agriculture, this move will enable greater targeting of actives and reduced biodiversity impact. In this market we are positioned as an innovation partner for delivery systems, creating new systems specifically for the delivery of biopesticides and meeting the sustainability challenges of conventional pesticide delivery. In pharma markets, the move from chemical to biological active pharmaceutical ingredients is already underway and we have developed a portfolio focused on segments with the highest development and innovation needs. As a result, our pharma portfolio has a well-diversified risk profile and opportunity set, which we are expanding through new technologies from our own innovation pipeline and via partnerships. The competitive positioning of our Pharma business is extremely strong, providing delivery systems that are critical to next-generation drugs and with excellent customer relationships spanning drug discovery through to commercial supply.

Future performance drivers

In Consumer Care, average customer inventory levels have fallen and volume recovery should be an important driver of near-term performance, particularly in Beauty Care which has broad market exposure and is larger than the other business units. Our approach in Beauty Care is to manage sales volumes in those parts of the portfolio where there is less differentiation to underpin consistent plant utilisation while also accelerating portfolio differentiation through innovation, sustainability and biotech. More recent additions to Consumer Care, including ceramides in Beauty Actives – which have significant growth potential, and the F&F business – which is delivering impressive sales growth albeit at margins which are below the average for Consumer Care, can also influence our future performance. Geographically, Asian consumer care markets are likely to grow faster than the rest of the world, particularly in India and China. While our direct sales to China have remained robust, a broad-based recovery in Chinese consumer spending and travel would underpin improved global demand for consumer care products.

In Life Sciences, an end to destocking in Crop Protection markets would be an important driver of improved performance in the near term. However, the timing of this inflection point is uncertain as destocking started later, and customer concentration is higher, so demand can be determined by the buying decisions of four or five major customers. In addition, agriculture markets are seasonal, so a lack of demand can mean that a whole season is missed, but conversely when a recovery comes it is likely to have a more immediate effect. Historically, the market for field crop seeds experiences changes in demand later in the cycle, so the market environment could be tougher in 2024, but for Croda, this risk is mitigated by our focus on vegetable seeds as well as market leadership in microplastic-free seed coatings and the incremental opportunities that are being created by regulation change.

The challenges that faced pharmaceutical markets in 2023, including the reset of demand post Covid-19, destocking and contraction in the availability of early-stage funding, appear to be temporary rather than structural, but their effects could continue into 2024. Over the longer term, accelerating growth and margins will be driven by incremental revenue from our own innovation pipeline and the commercialisation of new biologic drugs. The drivers of future performance in Pharma are therefore the rate of growth of our new delivery systems and vaccine adjuvants that we are bringing to the market, many of which are already generating revenue and have meaningful peak sales projections, and the pace of approval of new mRNA drugs and vaccines, a high proportion of which we are supporting during clinical trials and have invested capital in to be able to produce at scale when launched.

Outlook

Consumer Care has started the year well and we are cautiously optimistic about the improving demand trend we experienced in January. Within Life Sciences, we expect the non-Covid Pharma business to grow but that destocking will continue in Crop Protection. Demand in Industrial Specialties is expected to remain weak.

Given the ongoing uncertainty in our end markets, the recovery trajectory for each of our business units remains difficult to predict and the range of possible outcomes in 2024 is therefore wider than usual at this stage of the year. Overall, however, the Group expects to deliver mid to high single digit percentage sales growth in 2024, excluding the c.$60m of Covid-19 lipid sales in 2023, with higher sales volumes more than offsetting lower price/mix.

We expect 2024 Group adjusted operating margin to be two to three percentage points lower than 2023 due to the following:

- Different business mix effects year-on-year, with no Covid-19 lipid contribution and continued strong growth in Fragrances and Flavours.

- Low overhead recovery is expected to persist as sales volumes remain depressed in Crop Protection and Industrial Specialties, two of the three businesses with the highest production volumes, alongside Beauty Care.

- To support the return to sales growth, the cost base will reset back to a more normalised level from its low point in 2023. This will include the likely unwind in 2024 of the c.£25m benefit we saw in 2023 from a negligible variable remuneration charge. Some of this will be offset by modest cost savings from our recent reorganisation.

- We will continue to invest to support our long-term strategy. Customer interest in innovation and sustainable ingredients remains strong, despite the current destocking cycle.

Using these assumptions and at current exchange rates, we expect Group adjusted profit before tax to be between £260m and £300m in full year 2024.

Croda will report sales performance quarterly during 2024 and we will provide an update on first quarter trading at the AGM on 24 April 2024. Croda expects to return to its normal cycle of half yearly reporting in 2025.

With our strong balance sheet, improving cash flow and consistent investment in our refocused portfolio, Croda is well positioned to take advantage of the demand recovery when it occurs. We expect the Group's performance to accelerate from 2025, generating continued increasing returns for our shareholders.

Non-financial Performance

Delivering our Sustainability Commitment

We use smart science to create high performance ingredients that improve lives and aim to have positive global impacts on climate, nature, and society in line with our commitment to be Climate, Land and People Positive by 2030. We are enabling this by measuring and sharing data about the environmental and social impacts of our products, and developing sustainability competencies across Croda. Our sustainability leadership was recognised by CDP, which awarded us A- across their key Climate, Forest and Water metrics for the first time, complementing our long-standing triple A rating from MSCI. Our sustainability targets have been updated for the divestment of the majority of PTIC.

To be *Climate Positive*, the use of our ingredients will enable consumers to avoid more carbon than is associated with our operations and supply chain. Delivering on our carbon emission reduction targets will ensure we contribute to limiting the global temperature rise to no more than 1.5°C above pre-industrial levels. In line with our verified science-based target (SBT), we will reduce operational greenhouse gas emissions by 46.2% between 2018 and 2030. In 2023, our scope 1 and 2 emissions were 101,246 tonnes CO_2e (2022: 121,122 tonnes CO_2e), tracking well below our SBT principally due to low sales volumes. Although volumes are expected to recover in 2024, we remain confident in achieving our SBT. We are focused on implementing our externally validated decarbonisation roadmaps for every Croda location, supported by a higher internal carbon price of £124/tonne (previously £55/tonne) to ensure investment decisions align with our sustainability ambitions. We are also targeting material upstream supply chain emissions reductions, introducing a new Scope 3 dashboard, proactively managing our product portfolio, and prioritising work with like-minded key suppliers, 83% of whom (by raw material volume) now meet our prescribed Ecovadis standard (2022: 72%).

We are already *Land Positive*, saving more land through the use of our crop protection, biostimulant and seed enhancement technologies, than is used to grow our bio-based raw materials, and have challenged ourselves to go further. Our target now is to save at least 200,000 hectares more land per year in 2030 than in our 2019 baseline; at the end of 2023, we are on track to meet our 2024 interim target of 80,000 hectares. We announced in 2022 our aspiration to build on our Land Positive Commitment to contribute to a Nature Positive world. Our focus has been on understanding our impacts and dependencies on nature, where we have identified and started taking action on land use change and freshwater as priorities in our supply chains and operations.

Our *People Positive* objective covers both our employees and wider society. We focus on using our smart science to improve more lives globally, with the Croda Foundation sustainably improving the lives of more than 22m people worldwide since it was founded as a charity in 2021. Internally, our Purpose and Sustainability Commitment (PSC) score generated from an all-employee survey was maintained at 68% in the recent survey despite the tough trading environment which led to greater challenges for our teams. With a target to achieve gender balance in Croda leadership roles by 2030, we have maintained a gender balanced Board and increased the number of women in leadership roles to 39% (2022: 38%), a leading position in our sector.

The *Fundamentals* element of our Commitment represents the 2030 license to operate for a multinational company such as Croda. Reflecting our absolute commitment to be a safe company for our communities and our employees, we have set a stronger safety target to reduce our Total Recordable Incident Rate (“TRIR”) to 0.3 by 2025. The 2023 rate fell to 0.72 (2022: 0.74), excluding Covid-19 cases. In line with our commitment to embed safety as a value, safety practices were incorporated into the annual bonus scheme metric for the first time and more than 4,500 hours of training were delivered to over 500 leaders.

Driving innovation

Growth of new and protected product (NPP) sales is our principal established measure for innovation with NPP sales defined as sales protected by virtue of being newly launched, protected by intellectual property or by unique quality characteristics.

NPP as a proportion of total sales was 34% (2022: 35%), as the benefit of the divestment of the majority of PTIC was offset by lower Covid-19 lipid sales. By sector, NPP as a proportion of total sales improved to 42% in Consumer Care (2022: 41%), reflecting continued customer demand for innovation. It fell from 41% in 2022 to 29% in Life Sciences or by one percentage point from 32% in 2022 to 31% excluding the impact from Covid-19 lipid sales.

NPP growth is a key performance indicator that is used for remuneration. In the year, Group NPP sales fell by 4%, excluding the impact of Covid-19 lipid sales and the PTIC divestment, a less significant decline than for Group sales as a whole.

Our innovation strategy combines our own R&D with external technology investments and partnerships to augment Croda’s innovation centres globally. We continue to work with over 500 academic and SME partners, on more than 100 innovation projects.

Financial Performance

Focused on profit protection and active cash management

Given the challenging trading conditions in 2023, we took some immediate actions to address costs, at the same time as driving incremental sales growth by increasing customer sales activity and using quieter time during 2023 to bring forward maintenance and focus on other capital projects. Prioritising customer-facing activities will help ensure we can take advantage of the demand recovery when it occurs.

Tight cost control measures were implemented from the second quarter of 2023 to maximise profitability. A refreshed operational dashboard was also introduced to provide up-to-date performance data to leaders. As we saw volumes reset downwards, we optimised production to match the lower demand through plant shutdowns, reduced shift patterns, and introducing more ‘make to order’ contracts with customers. This helped us avoid costs, with energy and freight costs falling through the year and second half costs 12% lower than the first half. Outside of production, our main focus was on budgeted cost avoidance such as restricting travel, curtailing headcount and other common-sense measures.

Annual salary increases were granted at the start of 2023 but a hiring freeze from Q2 onwards meant underlying employee headcount fell. In addition, a negligible charge for variable remuneration versus 2022 benefitted operating profit margin. A new organisational structure has been in place since the start of 2024, with all regional teams now reporting into Consumer Care and Life Sciences. This will ensure we deliver more effectively for our customers and should result in annual cost savings of £9m from 2025. A £5.4m exceptional restructuring charge was recognised in the 2023 accounts associated with the introduction of this simpler operating model and we expect a charge of low single-digit millions in 2024 as further benefits are realised. In addition, we regularly review our site footprint and closed a site at Cikarang in Indonesia which principally served industrial customers.

There are further opportunities to drive efficiency savings by simplifying our business processes and driving improvements to the way we work that will deliver sustained benefits to our operational effectiveness over the longer term. A number of workstreams are already underway under our ‘doing the basics brilliantly’ programme, including through the use of artificial intelligence, data analytics, an online ordering tool that is saving hundreds of employee hours, and a multi-year SAP upgrade.

We have actively managed our cash flow, encouraging all employees to focus on generating cash, managing down our own inventories and collecting payments promptly. This delivered excellent results with improved free cash flow due to a working capital inflow and a significant reduction in inventory days which fell by around 20%. We expect our finished goods inventories to be back to pre-pandemic levels from a high point at the end of 2022 by the end of the first quarter of 2024, mitigating the risk that selling from stock (manufactured from higher cost raw materials) has a detrimental impact on profit margins. Enhanced by this improved free cash flow, our balance sheet remains strong with our debt leverage ratio within our target range of one to two times.

During the year we reviewed the pace of all in-flight capital expenditure projects, as well as every new proposal for non-safety-critical projects. This ensured that we maintained strong capital discipline whilst continuing to invest through the downturn in our refocused portfolio to drive profitable growth.

A balanced approach to capital allocation

Our continued capital deployment was executed within our consistent capital allocation policy which is 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;

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 Consumer Care and expanding in Life Sciences and a particular emphasis on pharma technologies; 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.

The Board is keeping the Company’s future capital requirements under close review.

In addition to continued organic capital expenditure to support significant opportunities for growth across Consumer Care and Life Sciences, on 4 July 2023, we completed the acquisition of Solus Biotech from Solus Advanced Materials for a total consideration of £227.4m, funded from cash and debt facilities. This brings biotechnology-derived ingredients into our portfolio including ceramides and phospholipids.

With a track record of more than 30 years unbroken dividend progression, consistent distribution to shareholders is a key consideration for the Board. We have proposed a small increase in the full year dividend at 109p a share (2022: 108p).

Currency translation

The US Dollar and the Euro together represent approximately 65% of the Group's currency translation exposure. Sterling was broadly flat against the US Dollar at an average for the year of US$1.243 (2022: US$1.237) and weakened slightly against the Euro to €1.149 (2022: €1.174) on a similar basis. The impact of changes in exchange rates for other smaller currencies, which represent 35% of the exposure, was more significant. Overall, the negative impact from currency translation was £9.1m on sales and £10.3m on adjusted operating profit. The disproportionate impact on adjusted operating profit reflected a £6m adverse effect from the application of IAS 29 ('Financial Reporting in Hyperinflationary Economies') to reporting in Argentina and Turkey, and a £2m foreign exchange loss from the devaluation of the Argentine peso, with the balance from the net effect of other currency movements. The transactional impact of foreign currency exchange was not material.

Impact of PTIC divestment

The Group successfully completed the divestment of the majority of the Performance Technologies and Industrial Chemicals (PTIC) business on 30 June 2022, with the retained industrials business, including the SIPO joint venture in China, becoming Industrial Specialties (IS). Given the divested business did not meet the requirements for classification as a discontinued operation, the first half of 2022 included the full PTIC business and the second half year only the retained business. It is estimated that, had the divestment occurred at the start of 2022, sales in 2022 would have been approximately £191m lower at £318m and 2022 adjusted operating profit would have been approximately £39m lower at £42m. Pro forma 2022 results have been adjusted for the divestment. On this basis, IS sales fell 35% to £206.1m and adjusted operating profit fell 78% to £9.4m.

Sales

Sales	**2023 £m**	Price/mix	Volume	Acquisition	Currency	Change	2022 £m
Consumer Care	886.1	1.9%	(3.6)%	1.0%	(0.6)%	(1.3)%	897.8
Life Sciences	602.3	3.2%	(15.4)%	0.7%	(0.2)%	(11.7)%	682.3
Industrial Specialties	206.1	(3.9)%	(55.1)%	0.0%	(0.5)%	(59.5)%	509.2
Group	1,694.5	10.9%	(30.0)%	0.6%	(0.4)%	(18.9)%	2,089.3
Estimated pro forma sales							
Group	1,695	11%	(30)%	1%	(1)%	(19)%	2,089
Pro forma adjustment							(191)
Group (pro forma)	1,695	5%	(16)%	1%	(1)%	(11)%	1,898

Reported sales were down 18.9% to £1,694.5m (2022: £2,089.3m). On a pro forma basis they were down 11%. Within this, price/mix improved by 5%, supported by positive mix in Consumer Care and weaker IS sales. Group volumes reduced by 16% pro forma, with a weaker macroeconomic environment and continued customer destocking across consumer, crop and industrial markets having a significant impact. While sales volumes remain significantly lower than 2022, they are slowly improving in Consumer Care and were 9% higher in the second half of 2023 than they were in the second half of 2022. Sales of ceramides and phospholipids contributed 1% following completion of the Solus Biotech acquisition in July, with a 1% headwind from currency translation mainly due to movements in smaller currencies to which the Group has less exposure.

Profit and margin

	2023			2022		
	IFRS £m	Adjustments £m	Adjusted £m	IFRS £m	Adjustments £m	Adjusted £m
Sales	1,694.5	-	1,694.5	2,089.3	-	2.089.3
Cost of sales	(964.5)	-	(964.5)	(1,103.7)	-	(1,103.7)
Gross profit	730.0	-	730.0	985.6	-	985.6
Operating costs	(482.5)	(72.5)	(410.0)	(540.9)	(70.4)	(470.5)
Operating profit	247.5	(72.5)	320.0	444.7	(70.4)	515.1
Gain on business disposal	-	-	-	356.0	356.0	-
Net interest charge	(11.2)	-	(11.2)	(20.7)	(1.7)	(19.0)
Profit before tax	236.3	(72.5)	308.8	780.0	283.9	496.1
Tax	(64.2)	9.5	(73.7)	(126.7)	(13.8)	(112.9)
Profit after tax	172.1	(63.0)	235.1	653.3	270.1	383.2

	2023			2022		
Operating profit	IFRS £m	Adjustments £m	Adjusted £m	IFRS £m	Adjustments £m	Adjusted £m
Consumer Care	127.8	(32.5)	160.3	144.5	(60.2)	204.7
Life Sciences	131.7	(18.6)	150.3	220.3	(9.1)	229.4
Industrial Specialties	(12.0)	(21.4)	9.4	79.9	(1.1)	81.0
Group	247.5	(72.5)	320.0	444.7	(70.4)	515.1

Adjustments excluding gain on business disposal	2023 £m	2022 £m
Business acquisition costs	(9.6)	–
Restructuring costs	(5.4)	–
Impairments	(20.8)	(42.2)
Fair value movement on contingent consideration	–	6.1
Unwind of discount on contingent consideration (net interest)	–	(1.7)
Amortisation of intangible assets arising on acquisition	(36.7)	(34.3)
Total adjustments	(72.5)	(72.1)

	Full year ended 31 December					
Adjusted profit	2023 £m	Underlying growth £m	Acquisition impact £m	Currency impact £m	2022 £m	Change
Consumer Care	160.3	(41.3)	0.4	(3.5)	204.7	(21.7)%
Life Sciences	150.3	(73.9)	0.0	(5.2)	229.4	(34.5)%
Industrial Specialties	9.4	(70.0)	0.0	(1.6)	81.0	(88.4)%
Operating profit	320.0	(185.2)	0.4	(10.3)	515.1	(37.9)%
Net interest	(11.2)				(19.0)	(41.1)%
Profit before tax	308.8				496.1	(37.8)%

Estimated pro forma profit	2023 £m	2022 £m	Change
Adjusted operating profit	320	515	(38)%
Pro forma adjustment	-	(39)	
Adjusted operating profit (pro forma)	320	476	(33)%
Net interest	(11)	(13)	15%
Adjusted profit before tax (pro forma)	309	463	(33)%

Cost of sales benefitted from a 12% reduction in raw material costs in 2023, with freight and energy costs also reducing as we progressed through the year. In addition, underlying employee costs were broadly flat as a hiring freeze and natural attrition offset inflation-based salary increases.

Significant volume declines across most of our markets at a similar time led to low levels of capacity utilisation at our manufacturing sites, with negative operating leverage impacting profit margins. IFRS operating profit was £247.5m (2022: £444.7m) and profit before tax £236.3m (2022: £780.0m), the prior period having included the gain on the PTIC divestment of £356.0m. IFRS profit before tax included a charge for adjusting items of £72.5m (2022: £72.1m charge excluding the gain on business disposal), comprising a goodwill impairment of £20.8m to the carrying value of the Chinese SIPO joint venture in Industrial Specialties, a charge for amortisation of acquired intangible assets of £36.7m (2022: £34.3m), acquisition costs of £9.6m (2022: £nil) and restructuring costs associated with changes to the Group's operating model of £5.4m (2022: £nil). Prior year adjusting items included 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 and a £7.6m write-off of unusable manufacturing equipment in Japan. The adjusting charge within net interest related to unwind of the discount on contingent consideration of £1.7m.

Group adjusted operating profit reduced by 33% on a pro forma basis to £320.0m (2022 pf: £476m), with an adjusted operating margin of 18.9% (2022 pf: 25%). With a large reduction in sales volumes, the biggest impact on margin was operating leverage, with reduced fixed overhead coverage, accounting for a reduction in operating margin of around five percentage points. Adverse mix, principally lower Covid-19 lipid sales, also had an impact, reducing operating margin by around three percentage points.

There were a number of non-trading impacts that benefitted the adjusted operating margin by a total of approximately two percentage points. The most significant of these was a one and a half percentage point benefit from a negligible variable remuneration charge due to the impact of a lower share price on share scheme costs and because the annual bonus for 2023 was not triggered. Consumer Care also benefitted from the release of an accrual for an earn out associated with the Iberchem acquisition. Following the PTIC divestment, associated dis-synergy costs that were previously allocated to the divested business have been reallocated across the Consumer Care and Life Sciences sectors. This benefitted Industrial Specialties but reduced the operating margin in Consumer Care and Life Sciences by approximately half a percentage point each.

Whilst there are likely to be some bounce-back costs in 2024 as trading normalises, including a higher charge for variable remuneration and higher employee costs, there are also opportunities for margin expansion from higher sales volumes and improved mix, particularly if volume recovery is broad-based across all markets.

Net finance costs were £11.2m (2022: £19.0m), with receipt of £665.0m proceeds from the PTIC divestment on 30 June 2022 and payment of the £227.4m consideration for Solus Biotech on 4 July 2023 being the main drivers of changes over recent periods, as well as higher interest rates. Net finance costs are expected to be £15-20m in 2024. Adjusted profit before tax was £308.8m (2022 pf: £463m). The effective tax rate on adjusted profit was 23.9% (2022: 22.8%) and the effective tax rate on IFRS profit was 27.2% (2022: 16.2%). The 2023 IFRS tax rate was higher than the effective tax rate on adjusted profit as the exceptional costs were mainly capital in nature and therefore not tax deductible. The prior year IFRS tax rate was lower than the effective tax rate on adjusted profit having benefitted from corporate tax exemptions available on the PTIC divestment. Releases of prior year tax provisions benefitted the Group's adjusted effective tax rate by approximately two percentage points, otherwise there were no significant adjustments between the Group's expected and reported adjusted tax charge based on its accounting profit. IFRS basic earnings per share (EPS) were 122.5p (2022: 465.8p) and adjusted basic EPS were 167.6p (2022: 272.0p).

Improving free cash flow

As a result of active cash management during 2023, free cash flow improved to £165.5m (2022 restated: £157.4m), with a working capital inflow of £29.1m (2022: £133.8m outflow). The working capital inflow was principally driven by lower inventory with stock days falling by approximately 20%. The improvement in working capital was despite the impact on receivables of approximately $60m of lipid sales shipped to our principal Covid-19 vaccine customers during the final quarter.

Net capital expenditure was £170.1m (2022: £138.5m), driving future growth opportunities and supported by government funding grants in the Pharma business.

Cash flow	Full year ended 31 December 2023 £m	Restated 2022 £m
Adjusted operating profit	320.0	515.1
Depreciation and amortisation	89.5	86.4
EBITDA	409.5	601.5
Working capital	29.1	(133.8)
Interest & tax paid	(93.5)	(154.0)
Non-cash pension expense	(4.4)	4.5
Share-based payments	(4.2)	(11.0)
Other cash movements	1.0	1.0
Net cash generated from operating activities	337.5	308.2
Net capital expenditure	(170.1)	(138.5)
Interest received	8.3	5.1
Payment of lease liabilities	(17.0)	(17.4)
Exceptional items cash outflow add back	6.8	-
Free cash flow	165.5	157.4
Dividends	(150.7)	(144.4)
Acquisitions	(241.8)	(21.2)
Business disposal net of cash in disposed business	(4.6)	579.0
Exceptional items cash outflow	(7.9)	(1.0)
Other cash movements	(10.3)	(7.5)
Net cash flow	(249.8)	562.3
Net movement in borrowings	125.1	(381.8)
Net movement in cash and cash equivalents	(124.7)	180.5

Closing net debt was £537.6m (2022: £295.2m), including payment of the £227.4m consideration for the Solus Biotech acquisition that was funded from cash and debt facilities. The balance sheet remains strong with a leverage ratio of 1.3x EBITDA (2022: 0.5x), within our 1-2x target range. As at 31 December 2023, the Group had committed funding in place of £1,050.0m, with undrawn committed facilities of £381.2m and £172.5m in cash. We received the most favourable rate of interest on our sustainable banking facility as our emissions reductions met the specified targets.

Retirement benefits

The post-tax asset on retirement benefit plans at 31 December 2023, measured on an accounting valuation basis under IAS 19, was £64.9m (2022: £75.2m). Cash funding of the various plans is driven by the schemes' ongoing actuarial valuations. The Trustee and Company are working on the 30 September 2023 triennial actuarial valuation for the largest pension plan, the UK Croda Pension Scheme. Initial results shared with the Company show that the funding position has improved and that the cost of providing benefits has fallen.

Sector Performance

Consumer Care

Strategy – positively contributing to everyday life

Croda creates critical Consumer Care ingredients 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 anticipates and responds to the megatrends influencing consumer behaviour and shaping our customers' needs. In an era defined by rapid global economic shifts and evolving consumer desires, our strategy positions us at the forefront of the market, ready to meet the demands of an increasingly discerning consumer base. Consumers 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. We 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 completed the acquisition of Solus BioTech, a global leader in premium, biotechnology-derived materials located in South Korea. With over 30 years of expertise in the development of naturally derived ceramides, the acquisition broadens Croda's offering of high performance, natural ingredients for luxury beauty customers in Asia and globally.

Consumer Care comprises four business units (with sales percentages rounded to the nearest 5%):

- **Beauty Actives** (c.15% of sector sales) operates in the highest premium part of the market, offering customers scientific expertise for unparalleled product efficacy. Croda is a market-leader with a large actives portfolio across two ranges: Sederma Actives for high efficacy skin actives derived from peptides and biotech; and Croda Botanicals for natural plant-based actives.

- **Beauty Care** (c.50% of sector sales) delivers differentiated ingredients across skin, hair and solar care. 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)** (c.30% of sector sales) is a preeminent emerging market provider, with global reach and innovative technologies that meet customer needs with agility and quality. 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 technology and customer bases.

- **Home Care** (c.5% 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 biopolymers that increase the lifetime of clothes; and household care, with sustainable alternatives to fossil-based surfactants.

Performance summary – leadership in innovation and sustainability driving demand

Consumer Care sales fell 1% to £886.1m (2022: £897.8m) with strong double-digit percentage sales growth in F&F but lower underlying sales in Beauty Actives, Beauty Care and Home Care. Price/mix was 2% mainly due to a positive mix impact from Beauty Actives, with pricing broadly flat. Sales volumes were down 4% year-on-year but were up 9% in the second half compared with the second half of 2022. Acquisitions added 1% due to sales of ceramides following the Solus Biotech acquisition, with foreign currency translation a small headwind particularly in the second half year.

IFRS operating profit was £127.8m (2022: £144.5m) and adjusted operating profit was £160.3m (2022: £204.7m), resulting in adjusted operating margin reducing to 18.1% (2022: 22.8%). Four and a half percentage points of the margin decline was due to the operating gearing effect of continued weak volumes in Consumer Care, compounded by lower volumes in Life Sciences and Industrial Specialties which share the same manufacturing assets. Two percentage points of the margin decline was due to weaker mix as a result of strong growth of lower margin F&F sales, with the negligible variable remuneration charge and provision release associated with an earn-out on the Iberchem acquisition providing a partial offset.

In Consumer Care, our leadership in sustainability and innovation continues to drive demand for Croda's differentiated ingredient portfolio. Sales of New and Protected Products (NPP) improved to 42% of total sales (2022: 41%) and sales of sustainable ingredients such as ECO surfactants and biotech-derived ingredients were stronger than other ingredients in our portfolio. We can now provide product-level carbon footprint data to our customers so that they can quantify the benefits associated with using around 1,300 of our ingredients in their products, supporting a structural shift in behaviour by customers and consumers towards sustainable ingredients. The focus of our work has been on Beauty Care where Product Carbon Footprints are now available for three quarters of our portfolio.

Sales to Asia exceeded sales to North America for the first time with significant potential for further growth, particularly for premium products driven by the increasing number of middle-class consumers. To maximise fast growth in Asia, we have prioritised investment in R&D, sales and production in China and India in particular where underlying sales grew 12% in 2023. While our performance in China has remained robust, owing to strong relationships with regional brands built on our innovation expertise, a broad-based recovery in Chinese consumer spending and travel would underpin improved global demand for consumer care products.

The stand-out performer in 2023 was **Fragrances and Flavours (F&F)** which delivered 18% underlying sales growth, benefitting from its distinctive positioning in fast-growing markets and agile, cost competitive model. F&F sales were up in all product categories and established regions, with the Middle East particularly strong. This excellent sales growth principally reflects F&F's high exposure to local and regional customers outside North America and Europe as well as sales synergies that are being realised under Croda's ownership. These include a new multi-million pound a year sales opportunity to supply fragrances to a multinational company in regions where F&F has local production. Projects are also underway to further increase the proportion of bio-based fragrance ingredients, to continue the move towards lower carbon and a more natural footprint. Approved R&D and manufacturing investment programmes are underway in China, Indonesia, France and Spain to continue the growth momentum.

In **Beauty Actives**, reported sales were up 4% but down 1% on an underlying basis (i.e. excluding the Solus Biotech acquisition.) Positive mix helped offset weaker volumes as Sederma active ingredients grew, particularly in China, whereas sales of lower-value botanicals fell. The business supported new customer products with peptides for the new Boots No7 Future Renew range and for a new Deciem product that repairs scars caused by acne. Our ingredients are increasingly derived from biotechnology, both plant stem cells and fermentation, and we recently launched Luceane™, an anti-ageing active with its origins in marine biotechnology, and an active ingredient that fades age spots caused by the sun. Having completed the Solus Biotech acquisition in July 2023, we are excited about the opportunities that the addition of further fermentation-derived active ingredients to our portfolio are starting to open up, with strong customer demand already evident for ceramides. We will drive rapid sales growth of Solus ingredients by leveraging Croda's global selling network and formulation science expertise.

Performance remained weakest in **Beauty Care,** which has broad market exposure and is larger than the other business units, with sales down 11% driven by lower volumes. Our approach in Beauty Care is to manage sales volumes in the less differentiated parts of the portfolio to underpin consistent plant utilisation and cover fixed costs. We are also working to win back business in North America which we lost in 2022 through our inability to supply. In parallel, we are accelerating the differentiation of the Beauty Care portfolio by driving innovation, enhancing the sustainability profile of our ingredients, and transitioning our manufacturing processes to biotech and other low carbon technologies. Already a sustainability leader, the business is adding further high-performance replacements for fossil-based products, such as biotech-derived surfactants to reinforce a number one position in sustainable surfactants. In hair care, our focus is on biodegradable hair care ingredients and non-animal alternatives for hair conditioning. In sun protection, we specialise in mineral sunscreens that deliver superior SPF protection, are 'reef safe' and appear clear on the skin. The continued fragmentation of beauty care markets plays to our strengths as we partner with customers large and small enabling them to launch their products quickly. We are leveraging this position as go-to-market partner at our innovation centres globally where we offer to co-create customer products.

The recovery of sales volumes in **Home Care** accelerated as the year progressed, with underlying sales down 1% year-on-year but up 12% in the second half compared with the second half of 2022. Once again it was sales of two technology platforms that are differentiated by sustainability that led the way – bio-based ECO surfactants for household care and biopolymers which extend the life of fabrics. We also agreed a long-term contract with a key customer that underpins future sales of our biopolymer range.

Alongside investments that help deliver the carbon reduction roadmaps that we have put in place for all sites, Consumer Care investment is focused on Asia to support continued growth momentum. In China, we opened a new laboratory in Shanghai and started work on £30m combined Beauty Actives and F&F manufacturing facility in Guangzhou to grow domestic sales. In India, we commenced construction of a new surfactants plant at a greenfield site in Dahej. The acquisition of Solus Biotech in South Korea has also given us another state-of-the-art plant in the region and strengthened our presence across Asia.

Life Sciences

Strategy – empowering 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 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 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 our Agriculture business, we are reinforcing our leadership with sustainable solutions and leveraging our expertise to accelerate the transition to biopesticides, 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, the first to deliver a commercial Covid-19 mRNA delivery system and widely utilised within the fast-evolving gene editing market.

Life Sciences comprises three business units (with sales percentages rounded to the nearest 5%):

- **Crop Protection** (c.30% 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 biopesticides and contributing to food security.

- **Seed Enhancement** (c.15% of sector sales) leverages our leadership in seed coating systems and enhancement technologies to improve germination, stimulate healthy development of seeds and increase crop yield. Our strategy is to be the leader in sustainable seed enhancement solutions for both field and vegetable crops.

- **Pharma** (c.55% of sector sales) targets leadership in biologics drug delivery, delivering drug and vaccine systems through synthesis, system formulation and application technology know-how. Our innovation portfolio is designed to selectively support customers, large and small, who are driving emerging pharma technologies, and to unlock value from our technology strengths. Pharma comprises three technology platforms:

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

    - Adjuvant Systems is the most advanced third-party supplier of adjuvants (immune response boosters) for vaccines. There is a large, recognised need for innovation in vaccine adjuvant systems as a result of the development of novel therapeutic vaccines that cure diseases previously only treatable with symptomatic treatments. Croda is well-positioned with the broadest range of vaccine adjuvant systems and is embedded within vaccine pipelines across many indications. Our strategy is to accelerate use of innovative adjuvant systems, comprising multiple building blocks, supporting WHO vaccine programmes and the development of future preventative and therapeutic vaccines.

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

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

Performance summary– continued progress building industry-leading positions in high-growth markets

Life Sciences sales were down 12% to £602.3m (2022: £682.3m), with approximately seven percentage points of the reduction due to lower sales of lipid systems for Covid-19 vaccine applications. On a reported basis, positive price/mix of 3% partly offset a 15% decline in volume, the majority of which was due to destocking by Crop Protection customers with a small effect from similar trends in consumer health. There was also a contribution from phospholipid sales following completion of the Solus Biotech acquisition in July 2023 and a small foreign currency headwind. Sales of New and Protected Products (NPP) as a percentage of total sector sales fell to 29% (2022: 42%) or by one percentage point to 31% (2022: 32%) excluding the impact from Covid-19 lipid sales.

IFRS operating profit was £131.7m (2022: £220.3m) and adjusted operating profit was £150.3m (2022: £229.4.m), resulting in an adjusted operating margin of 25.0% (2022: 33.6%). Six percentage points of the margin reduction was the result of adverse price/mix mainly due to lower Covid lipid sales, and four percentage points was the result of the negative operating leverage effect of lower volumes mainly in Crop Protection, partly offset by the benefit from a negligible variable remuneration charge. Shipments of c.$60m of lipid systems to our principal Covid vaccine customers occurred as planned at the end of the year benefitting second half operating profit margin.

Crop Protection is meeting the 'innovation gap' created by regulatory pressure to reduce pesticide use by developing sustainable crop care solutions as well as delivery systems for crop biologics that are enabling customers to transition to biopesticides. We recently launched our first delivery system specially designed for biopesticides, which has secured sales in all regions, and a new product that meets the growing demand for drone application particularly in Asia. Following an exceptional 2022, when Crop Protection delivered both strong double-digit percentage volume growth and price/mix, the business started the year with good momentum, but began to experience rapid customer destocking in the second quarter, with Q2 volumes down more than 30% compared with Q1. Volume weakness continued throughout the second half year, to fall 21% year-on-year with a small offset from positive price/mix, resulting in sales falling 19% overall. An end to destocking in Crop Protection markets would be an important driver of improved Life Sciences performance in the near term but the timing of this inflection point is uncertain as destocking started later than in other markets, and customer concentration is higher, so demand can be determined by the buying decisions of four or five major customers. In addition, agriculture markets are seasonal, so a lack of demand can mean that a whole season is missed, but conversely when a recovery comes it is likely to have a more immediate effect.

In **Seed Enhancement**, a significant proportion of sales are derived from providing just-in-time enhancement services for vegetable seeds. As such, the business only sees a limited impact from stocking cycles and delivered a 9% sales increase, driven by strong structural growth trends. Seed Enhancement is winning market share through its leadership in microplastic-free seed coatings which are in high demand globally following the European Union's recent adoption of measures that will ban the use of microplastics in agriculture in the next five years. Historically, the market for field crop seeds experiences changes in demand later in the cycle, so the market environment could be tougher in 2024, but for Croda, this risk is mitigated by our focus on vegetable seeds, our sustainability leadership and the incremental opportunities that are being created by regulation change.

Pharma continued to make good progress with its industry-leading position in biologics drug delivery as well as recent partnerships and new product launches further strengthening the pipeline of opportunities. Pharma sales fell 11% but grew 3% on an underlying basis excluding lipid sales for Covid-19 vaccine applications. The period also saw the first sales of phospholipids for drug delivery and intravenous nutrition following the completion of the Solus Biotech acquisition in July 2023. Whilst we were not immune from the challenges impacting the market, including customers reducing inventory levels, Covid normalisation and funding constraints for early-stage biotech companies, the breadth and diversification of our pharma portfolio enabled the business to deliver a resilient performance. Destocking primarily affected our heritage, consumer health ingredients for over-the-counter medicines, with lower Covid-19 demand adversely impacting Adjuvant Systems sales as well as lipids for Covid-19 mRNA vaccines. These challenges appear to be temporary rather than structural, but their effects could continue into 2024. By contrast, drug delivery technologies for Small Molecule, Protein and Nucleic Acid applications continued to grow.

Over the longer term, accelerating growth and margins will be driven by the commercialisation of new biologic drugs, many of which we are supporting during clinical trials, augmented by incremental revenue from our own innovation pipeline.

Protein/Small Molecule Delivery provides delivery systems for both the more mature small molecule drugs and the higher growth protein and monoclonal antibody (mAb) applications. Through the Solus Biotech acquisition, we have added naturally derived phospholipids to our portfolio which can be used as delivery systems for protein and small molecule actives, and for intravenous nutrition. In line with our strategy, we also expanded into bioprocessing aids, a target adjacency, launching Virodex as an aid for biopharma manufacturing and a superior alternative to a competitor product that is now banned in Europe. The first sales of Virodex were secured within three months of launch.

Adjuvant Systems is the leading independent supplier of adjuvants which are used as immune response boosters in both commercialised vaccines and those in development. It will benefit from two new adjuvant partnerships agreed during the year with Amyris and BSI. One of these is a sustainable squalene adjuvant that is produced by fermentation and is free from shark-derived material that forms the basis of competing adjuvants, and is already being qualified by three major vaccine companies. We have also expanded our adjuvants portfolio through new launches from our own innovation pipeline including PHAD, a new proprietary lipid-based adjuvant already sampled into over 20 vaccine projects.

The growth of *Nucleic Acid Delivery* will be driven by the commercialisation of new nucleic acid drugs with the number in development continuing to grow, and Croda supporting the majority of those that specify a lipid delivery system. Clinical trials of nucleic acid-based drugs have increased rapidly over the last 12 months as pharma industry pipelines continue to grow. The strong medium-term growth trajectory for our *Nucleic Acid Delivery* platform is likely to be realised in three phases: firstly, mRNA vaccines for infectious diseases which are expected to come to the market from 2025, where we are working closely with the Big Pharma companies driving this development; secondly, oncology applications which require more targeted delivery systems; and thirdly, gene editing therapies such as a CRISPR treatment for sickle cell anaemia which we are supporting and was recently approved by the US FDA.

During the year, we opened an applications centre in ‘Genome Valley’, Hyderabad, India to support growing demand for protein and small molecule delivery. With our Pharma business a top priority for capital allocation, we also opened an adjuvant systems lab in Denmark and are due to expand our R&D capabilities for nucleic acid delivery at Alabaster in the USA and in Singapore in 2024. We are investing an extra £175m over the period 2021 to 2024 to scale up Pharma production, particularly to meet forecast market demand for new nucleic acid drugs which are widely expected to come to the market from 2025, with the US and UK Governments co-investing up to an additional £75m combined. We have invested over £110m in the programme to date.

Industrial Specialties – contributing to the efficiency of our manufacturing assets

With the divestment of the majority of Croda’s Performance Technologies and Industrial Chemicals (PTIC) business on 30 June 2022, the retained industrials business, including the SIPO joint venture in China, became Industrial Specialties (IS). IS leverages investments in Consumer Care and Life Sciences, our core sectors, and plays a critical role in our shared manufacturing site model. This includes contributing sales volumes to our production assets and thereby enhancing overall asset utilisation, cost absorption, and ultimately profitability, as well as monetising co-streams so that we maximise the value of all our products. The business is regionally led, to enable flexible optimisation of manufacturing capacity matched against local demand, with global leadership from an Executive Committee member. It also operates a medium-term supply contract to Cargill, the new owner of the divested business.

The 2022 comparator year comprised the full PTIC business in the first half year and the retained business in the second half year. It is estimated that, had the divestment occurred at the start of 2022, sales in 2022 would have been £191m lower at £318m and 2022 adjusted operating profit would have been £39m lower at £42m. On this pro forma basis, sales fell 35% to £206.1m principally due to lower volumes, reflecting destocking and weak industrial demand globally. The effect of weak demand was similar on both sales direct from Croda and to Cargill as part of the supply agreement and limited the ability of IS to help optimise site utilisation. Pro forma adjusted operating profit fell 78% to £9.4m as negative operating leverage compounded the impact of lower volumes. The impact of these adverse market conditions on the SIPO joint venture in China resulted in a goodwill impairment charge of £20.8m taken at the 30 June 2023 balance sheet date. Including the impairment charge, the reported IFRS loss was £12.0m (2022: £79.9m profit), with the prior period including the full contribution from the divested business.

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.

During our periodic risk reviews, we confirmed that all principal risks reported in 2022 remain relevant and no new principal risks were identified.

Revenue generation risk increased during 2023 as the risk of continuous escalation of geopolitical conflicts may exert further downward force on demand, consequently impacting revenue. Despite a difficult year with significant revenue and profit reductions, Croda's business model has remained resilient as evidenced by strong cash generation.

Security of business information and networks risk also heightened in likelihood during 2023 because of evolving technologies and increasingly sophisticated malicious activities worldwide.

The rapid evolution and transformative potential of artificial intelligence present a significant emerging risk with associated potential opportunity, demanding close monitoring and proactive management.

Croda International Plc
Summary Financial Statements for the Year Ended 31 December 2023

Group Income Statement

for the year ended 31 December 2023

	Note	2023 Adjusted £m	2023 Adjustments £m	2023 Reported Total £m	2022 Adjusted £m	2022 Adjustments £m	2022 Reported Total £m
Revenue	2	1,694.5	–	1,694.5	2,089.3	–	2,089.3
Cost of sales		(964.5)	–	(964.5)	(1,103.7)	–	(1,103.7)
Gross profit		730.0	–	730.0	985.6	–	985.6
Operating costs		(410.0)	(72.5)	(482.5)	(470.5)	(70.4)	(540.9)
Operating profit	2	320.0	(72.5)	247.5	515.1	(70.4)	444.7
Gain on business disposal	13	–	–	–	–	356.0	356.0
Financial costs	3	(26.0)	–	(26.0)	(24.1)	(1.7)	(25.8)
Financial income	3	14.8	–	14.8	5.1	–	5.1
Profit before tax		308.8	(72.5)	236.3	496.1	283.9	780.0
Tax	4	(73.7)	9.5	(64.2)	(112.9)	(13.8)	(126.7)
Profit after tax for the year		235.1	(63.0)	172.1	383.2	270.1	653.3
Attributable to:							
Non-controlling interests		1.1	–	1.1	4.0	–	4.0
Owners of the parent		234.0	(63.0)	171.0	379.2	270.1	649.3
		235.1	(63.0)	172.1	383.2	270.1	653.3

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	167.6	122.5	272.0	465.8
Diluted		167.4	122.3	271.4	464.8
Ordinary dividends paid in the year					
Interim	6		47.0		47.0
Final	6		61.0		56.5

Group Statement of Comprehensive Income

for the year ended 31 December 2023

	2023 £m	2022 £m
Profit after tax for the year	172.1	653.3
Other comprehensive (expense)/income:		
Items that will not be reclassified subsequently to profit or loss:		
Remeasurements of post-retirement benefit obligations	(23.3)	88.9
Tax on items that will not be reclassified	5.5	(22.4)
	(17.8)	66.5
Items that have been or may be reclassified subsequently to profit or loss:		
Currency translation	(58.4)	104.2
Reclassification of currency translation	–	(14.8)
Cash flow hedging	(19.3)	2.8
Reclassification of cash flow hedging	–	(6.5)
Reclassification of cost of hedging reserve	–	6.0
Tax on items that may be reclassified	–	(0.4)
	(77.7)	91.3
Other comprehensive (expense)/income for the year	(95.5)	157.8
Total comprehensive income for the year	76.6	811.1
Attributable to:		
Non-controlling interests	0.1	4.4
Owners of the parent	76.5	806.7
	76.6	811.1
Arising from:		
Continuing operations	76.6	811.1

Group Balance Sheet

at 31 December 2023

	Note	**2023 £m**	2022 £m
Assets			
Non-current assets			
Intangible assets	7	1,408.5	1,253.2
Property, plant and equipment	8	1,044.0	964.5
Right of use assets		87.5	96.9
Investments		1.9	3.4
Deferred tax assets		14.4	10.3
Retirement benefit assets	9	113.5	123.2
		2,669.8	2,451.5
Current assets			
Inventories		341.2	464.0
Trade and other receivables		395.7	375.8
Cash and cash equivalents		172.5	320.6
		909.4	1,160.4
Liabilities			
Current liabilities			
Trade and other payables		(252.0)	(320.0)
Borrowings and other financial liabilities		(36.7)	(121.9)
Lease liabilities		(13.7)	(12.9)
Provisions	9	(8.6)	(6.1)
Current tax liabilities		(9.2)	(26.9)
		(320.2)	(487.8)
Net current assets		589.2	672.6
Non-current liabilities			
Borrowings and other financial liabilities		(588.4)	(401.8)
Lease liabilities		(71.3)	(79.2)
Other payables		(1.1)	(4.5)
Retirement benefit liabilities	9	(26.8)	(23.1)
Provisions	9	(10.5)	(11.5)
Deferred tax liabilities		(192.8)	(172.9)
		(890.9)	(693.0)
Net assets		2,368.1	2,431.1
Equity			
Ordinary share capital		15.1	15.1
Share premium account		707.7	707.7
Reserves		1,629.7	1,692.8
Equity attributable to owners of the parent		2,352.5	2,415.6
Non-controlling interests in equity		15.6	15.5
Total equity		2,368.1	2,431.1

Group Statement of Changes in Equity

for the year ended 31 December 2023

	Note	Share capital £m	Share premium account £m	Other reserves £m	Retained earnings £m	Non controlling interests £m	Total equity £m
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
At 1 January 2023		15.1	707.7	47.1	1,645.7	15.5	2,431.1
Profit after tax for the year		–	–	–	171.0	1.1	172.1
Other comprehensive expense		–	–	(76.7)	(17.8)	(1.0)	(95.5)
Total comprehensive (expense)/income for the year		–	–	(76.7)	153.2	0.1	76.6
Hedging losses transferred to goodwill		–	–	19.3	–	–	19.3
Transactions with owners:							
Dividends on equity shares	6	–	–	–	(150.7)	–	(150.7)
Share-based payments		–	–	–	1.6	–	1.6
Transactions in own shares		–	–	–	(9.8)	–	(9.8)
Total transactions with owners		–	–	–	(158.9)	–	(158.9)
Total equity at 31 December 2023		15.1	707.7	(10.3)	1,640.0	15.6	2,368.1

Other reserves include the Capital Redemption Reserve of £0.9m (2022: £0.9m) and the Translation Reserve of £(11.2)m (2022: £46.2m).

Group Statement of Cash Flows

for the year ended 31 December 2023

	Note	2023 £m	2022 £m
Cash generated by operations			
Adjusted operating profit		320.0	515.1
Exceptional items	2	(35.8)	(36.1)
Amortisation of intangible assets arising on acquisition		(36.7)	(34.3)
Operating profit		247.5	444.7
Adjustments for:			
Depreciation and amortisation		126.2	120.7
Fair value movement on contingent consideration		–	(6.1)
Impairments on intangible assets and property, plant and equipment		22.0	42.2
Impairment of investment		1.5	–
Loss on derivatives		4.6	–
Loss on disposal and write-offs of intangible assets and property, plant and equipment		0.2	0.2
Net provisions charged		5.6	1.6
Share-based payments		(4.2)	(11.0)
Non-cash pension expense		(4.4)	4.5
Net-monetary adjustment		6.3	–
Cash paid against operating provisions		(3.4)	(0.8)
Movement in inventories		117.8	(98.1)
Movement in receivables		(19.0)	(43.3)
Movement in payables		(69.7)	7.6
Cash generated by operations		431.0	462.2
Interest paid		(24.2)	(23.2)
Tax paid		(69.3)	(130.8)
Net cash generated from operating activities		337.5	308.2
Cash flows from investing activities			
Acquisition of subsidiaries, net of cash acquired		(204.3)	–
Payment of contingent consideration		(9.6)	(13.7)
Purchase of property, plant and equipment		(180.4)	(141.2)
Receipt of government grants		10.9	6.1
Purchase of other intangible assets		(8.6)	(11.2)
Proceeds from sale of property, plant and equipment		4.0	1.7
Proceeds from business disposal, net of cash in disposed business		–	583.6
Tax paid on business disposals		(4.6)	(4.6)
Settlement of acquisition-related FX derivatives		(23.9)	–
Cash paid against non-operating provisions		(1.6)	(1.2)
Interest received		8.3	5.1
Net cash (used in)/generated from investing activities		(409.8)	424.6
Cash flows from financing activities			
New borrowings		336.0	232.6
Repayment of borrowings		(210.9)	(614.4)
Payment of lease liabilities		(17.0)	(17.4)
Acquisition of non-controlling interests		–	(1.4)
Net transactions in own shares		(9.8)	(7.3)
Dividends paid to equity shareholders	6	(150.7)	(144.4)
Net cash used in financing activities		(52.4)	(552.3)
Net movement in cash and cash equivalents		(124.7)	180.5
Cash and cash equivalents brought forward		281.6	94.3
Exchange differences		(6.7)	6.8
Cash and cash equivalents carried forward		150.2	281.6
Cash and cash equivalents carried forward comprise:			
Cash at bank and in hand		172.5	320.6
Bank overdrafts		(22.3)	(39.0)
		150.2	281.6

Group Statement of Cash Flows continued

Reconciliation to net debt

	Note	**2023 £m**	2022 £m
Net movement in cash and cash equivalents		(124.7)	180.5
Net movement in borrowings and other financial liabilities		(108.1)	399.2
Change in net debt from cash flows		(232.8)	579.7
Loans in acquired businesses		(6.1)	–
Non-cash movement in lease liabilities		(12.9)	(13.4)
Non-cash preference shares reclassification		–	(1.1)
Exchange differences		9.4	(37.2)
		(242.4)	528.0
Net debt brought forward		(295.2)	(823.2)
Net debt carried forward		(537.6)	(295.2)

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 2023 or 2022 but is derived from those financial statements. Statutory financial statements for 2022 have been delivered to the Registrar of Companies and those for 2023 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 for the year ended 31 December 2023 have been prepared on a going concern basis which the Directors believe to be appropriate for the following reasons:

At 31 December 2023 the Group had £1,050m of committed debt facilities available from its banking group, USPP bondholders and lease providers, with principal maturities between 2026 and 2030, of which £381.2m (2022: £579.3m) was undrawn, together with cash balances of £172.5m (2022: £320.6m). The Group's debt facilities have funding covenant requirements, principally the leverage covenant with a maximum level of 3.5x net debt to covenant EBITDA, and interest cover.

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. Given the time horizon of these forecasts, the risk of climate change is not expected to have a material impact on these forecasts. 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 74% to trigger an event of default as at 30 June 2025. This scenario includes some mitigating actions to conserve cash, including reducing dividends and capital expenditure. Throughout this scenario, the Group continues to have significant liquidity headroom. The Directors do not consider this a plausible scenario. This is consistent with the bottom-up risk scenario modelling for the long-term viability statement which considered severe but plausible, individual, and combined scenarios, none of which trigger an event of default. 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. None of these risks had a material effect on the consolidated financial statements of the Group. In particular, the Directors have considered the impact of climate change in respect of the following areas:

- Going concern and viability of the Group over the next three years;
- Post-retirement benefit obligations;
- Carrying value and useful economic lives of property, plant and equipment; and
- The discounted cashflows included in the value in use calculation used in the annual goodwill impairment testing.

Whilst there is currently no material impact expected from climate change, the Group is aware of the ever-changing risks related to climate change and will continue to developing its assessment of the impact on the 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 2023 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 2023 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.

A detailed risk assessment was performed in relation to IFRS 17 'Insurance Contracts', including consideration of the captive insurance company, with no material impact identified to the Group financial statements.

(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 2024 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 2024 or 1 January 2025 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.

	2023 £m	2022 £m
Income statement		
Revenue		
Consumer Care	886.1	897.8
Life Sciences	602.3	682.3
Industrial Specialties	206.1	509.2
Total Group revenue	1,694.5	2,089.3
Adjusted operating profit		
Consumer Care	160.3	204.7
Life Sciences	150.3	229.4
Industrial Specialties	9.4	81.0
Total Group operating profit (before exceptional items and amortisation of intangible assets arising on acquisition)	320.0	515.1
Exceptional items and amortisation of intangible assets arising on acquisition	(72.5)	(70.4)
Total Group operating profit	247.5	444.7

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 2023					
Consumer Care	375.1	189.7	89.4	231.9	886.1
Life Sciences	245.9	167.6	87.7	101.1	602.3
Industrial Specialties	69.2	39.3	8.3	89.3	206.1
Total Group revenue	690.2	396.6	185.4	422.3	1,694.5
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

2. Segmental information continued

Adjustments

	2023 £m	2022 £m
Exceptional items – operating profit		
Business acquisition costs (note 12)	(9.6)	–
Restructuring costs	(5.4)	–
Goodwill impairment (note 7)	(20.8)	(34.6)
Property, plant and equipment impairment (note 8)	–	(7.6)
Fair value movement on contingent consideration	–	6.1
Exceptional items – financial costs		
Unwind of discount on contingent consideration	–	(1.7)
Gain on business disposal (note 13)	–	356.0
Exceptional items	(35.8)	318.2
Amortisation of intangible assets arising on acquisition	(36.7)	(34.3)
Total adjustments	(72.5)	283.9

The exceptional items in the current year relate to a goodwill impairment to the carrying value of the Chinese SIPO Cash Generating Unit (CGU) in Industrial Specialties, acquisition costs and restructuring costs associated with changes to the Group's operating model. The goodwill impairment, acquisition costs and restructuring costs have all been presented as exceptional due to their size and one-off nature. The exceptional items in the prior year related to 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 CGU and an impairment relating to the write-off of unusable manufacturing plant in Japan.

3. Net financial costs

	2023 £m	2022 £m
Financial costs		
Interest payable on borrowings	20.2	17.4
Interest on lease liabilities	2.6	2.5
Other bank loans and overdrafts	3.1	2.9
Other interest costs	–	1.2
Unwind of discount on contingent consideration (exceptional)	–	1.7
Preference share dividend	0.1	0.1
	26.0	25.8
Financial income		
Bank interest receivable and similar income	(9.4)	(2.7)
Net interest on post-retirement benefits	(5.4)	(2.4)
	(14.8)	(5.1)
Net financial costs	11.2	20.7

4. Tax

	2023 £m	202 £m
Analysis of tax charge for the year		
United Kingdom current tax	(1.5)	28.1
Overseas current tax	62.1	100.0
Deferred tax	3.6	(1.4)
	64.2	126.7

The effective adjusted corporate tax rate before exceptional items of 23.9% (2022: 22.8%) is slightly higher than the UK's standard tax rate of 23.5%. The reported corporate tax rate after exceptional items is 27.2% (2022: 16.2%).

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 the exposure to these different tax rates that increases the effective tax rate above the UK standard rate and also makes it difficult to forecast the Group's future tax rate with any certainty given the unpredictable nature of exchange rates, individual economies and tax legislators.

Croda's effective corporate tax rate has also increased as a result of incurring expenditure which is deemed capital in nature for tax purposes, including the impairment of goodwill, which is not tax deductible. The factors increasing the effective tax rate are largely offset by the prior year release of tax provisions. Otherwise, there are no significant adjustments between the Group's expected and reported tax charge based on its reported accounting profit. Given the global nature of the Group, and the number of associated cross-border transactions between connected parties, we are exposed to potential adjustments to the price charged for those transactions by tax authorities. However, the Group carries appropriate provisions relating to the level of risk.

5. Earnings per share

	2023 pence	2022 pence
Adjusted earnings per share	167.6	272.0
Impact of exceptional items, amortisation of intangible assets arising on acquisition and the tax thereon	(45.1)	193.8
Basic earnings per share	122.5	465.8

6. Dividends paid

	Pence per share	2023 £m	Pence per share	2022 £m
Ordinary				
Interim				
2022 interim, paid October 2022	–	–	47.0	65.6
2023 interim, paid October 2023	47.0	65.6	–	–
Final				
2021 final, paid June 2022	–	–	56.5	78.8
2022 final, paid May 2023	61.0	85.1	–	–
	108.0	150.7	103.5	144.4

The Directors are recommending a final dividend of 62.0p per share amounting to a total of £86.5m in respect of the financial year ended 31 December 2023. Subject to shareholder approval, the dividend will be paid on 29 May 2024 to shareholders registered on 19 April 2024. The total proposed dividend for the year ended 31 December 2023 will be 109.0p per share amounting to £152.1m.

7. Intangible assets

	2023 £m	2022 £m
Opening net book amount	1,253.2	1,271.6
Exchange differences	(24.7)	62.6
Additions	8.8	11.0
Acquisitions	233.8	–
Disposals and write offs	(1.0)	(20.5)
Reclassifications from property, plant and equipment	0.2	0.4
Amortisation charge for the year	(41.0)	(37.3)
Impairments	(20.8)	(34.6)
Closing net book amount	1,408.5	1,253.2

During the year an impairment of £20.8m was recorded in relation to goodwill arising on the acquisition of Sipo. This impairment principally reflected the decline in the profitability of the business in the period driven by adverse external market conditions, impacting both demand and pricing, which are expected to continue over the medium term. This impairment is recorded in the income statement as an exceptional item within operating costs and is within the Industrial Specialties operating business segment. Intangible asset amortisation is also recorded in operating costs. During the prior year, goodwill was impaired by £34.6m. This impairment was recorded in the income statement as an exceptional item within operating costs and was within the Consumer Care operating business segment.

8. Property, plant and equipment

	2023 £m	2022 £m
Opening net book amount	964.5	988.1
Exchange differences	(37.4)	72.3
Additions	181.1	135.9
Acquisitions	9.2	–
Disposals and write offs	(2.3)	(155.2)
Reclassifications to intangible assets	(0.2)	(0.4)
Depreciation charge for the year	(69.7)	(68.6)
Impairments	(1.2)	(7.6)
Closing net book amount	1,044.0	964.5

During the year the Group recognised government grant funding of £18.3m (2022: £6.1m) relating to the US cGMP scale up project and UK Pharma production capacity expansion project. Grant income is deducted from the cost of the associated asset within the additions line above. Also, during the year plant and equipment was impaired by £1.2m. This impairment is recorded in the income statement as a non-exceptional item within operating costs. During the prior year, plant and equipment was impaired by £7.6m relating to the write-off of unusable manufacturing plant in Japan. This impairment was recorded in the income statement as an exceptional item within operating costs and was within the Consumer Care (£5.0m) and Life Sciences (£2.6m) operating business segments.

9. Significant accounting judgements and estimates

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 significant if it has a significant effect on the amounts recognised in the financial statements or if the estimates have a risk of material adjustment to assets and liabilities within the next financial year.

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

Hedge accounting

On the 6 February 2023 the Group agreed to acquire Solus Biotech Co Ltd ('Solus') for a total consideration of KRW350bn, a highly probable future business combination (hedged item). In line with the Group's currency risk management strategy, the currency exposure for the Group, which has a Sterling functional and presentational currency, was manged through the execution of a deal contingent foreign exchange forward contract (hedging instrument). This instrument was designated as a cash flow hedge and therefore hedge accounting was applied in the Group's consolidated financial statements.

9. Significant accounting judgements and estimates continued

The application of hedge accounting for a deal contingent instrument requires significant judgement to determine whether the underlying transaction was highly probable, which is a requirement for the initial application of hedge accounting. The Group's assessment that the underlying transaction was highly probable, and therefore hedge accounting can be applied, is a key judgement. The primary consideration in forming this conclusion was in relation to the required regulatory approval, which was considered highly probable to be achieved based on an assessment of internal and external evidence. This judgement, and the subsequent application of hedge accounting, resulted in a £19.3m FX loss being deferred in other comprehensive income, and subsequently reclassified to goodwill, rather than being recognised in the income statement. During the year, a hedge ineffectiveness loss of £4.6m was recognised in the income statement within administrative expenses and reported as an exceptional item as part of business acquisition costs. The forward contract was settled during the year resulting in a cash outflow of £23.9m.

The significant accounting estimates required when preparing the Group's accounts are as follows:

Post-retirement benefits

The Group's principal retirement benefit schemes are of the defined benefit type. Year-end recognition of the liabilities under these schemes and the valuation of assets held to fund these liabilities require a number of significant assumptions to be made, relating to key financial market indicators such as inflation and expectations on future salary growth and asset returns. These assumptions are made by the Group in conjunction with the schemes' actuaries and the Directors are of the view that any estimation should be appropriate and in line with consensus opinion. The significant accounting estimate specifically relates to the Group's UK scheme, given the size of the liabilities and their sensitivity to underlying assumptions, including the impact of climate change on life expectancy. Small changes in these assumptions could result in a material adjustment to carrying values in the next financial year.

	2023 £m	2022 £m
Opening net retirement benefit surplus	100.1	7.9
Current service cost	(10.0)	(16.2)
Net interest income	5.4	2.4
Employer contributions	14.2	11.5
Benefits paid	0.2	0.2
Past service cost	–	3.9
Remeasurements	(23.3)	88.9
Acquisitions	(0.4)	–
Business disposal	0.5	1.5
Closing net retirement benefit surplus	86.7	100.1
Total market value of assets	967.1	969.3
Present value of scheme liabilities	(867.3)	(858.4)
Net pension plan asset	99.8	110.9
Post-employment medical benefits	(13.1)	(10.8)
Net retirement benefit surplus	86.7	100.1
Analysed in the balance sheet as:		
Retirement benefit assets	113.5	123.2
Retirement benefit liabilities	(26.8)	(23.1)
Net retirement benefit surplus	86.7	100.1

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%	7.1%
Inflation rate	0.5%	4.4%	-4.5%
Mortality (assumes a one-year change in life expectancy)	1 year	4.0%	-4.1%

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. Significant accounting judgements and estimates 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:

- Cash flow projections - based on management's most recent risk-adjusted view of future trading specific to the individual CGU, with assumptions on term and EBITDA growth (calculated as operating profit before depreciation and amortisation) as a result of fluctuating revenue and operating margins through the ability to pass on future raw material price increases.
- Terminal value growth in EBITDA– 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%.
- Discount rate - set using a weighted average cost of capital adjusted for the specific risk profile of each CGU.

The significant accounting estimate relates to the goodwill impairment review of the Flavours and Croda Korea CGUs. Given the impairment charge reported in the prior year the Flavours CGU has low headroom. The recoverable amount, and therefore level of headroom, is predominantly dependent upon judgements used in arriving at these key assumptions. The assumptions selected and associated sensitivity analysis are disclosed below. Although it is not management’s current expectation, these sensitivities provide the impact on the recoverable amount when applying a reasonably possible change in the assumptions. The goodwill impairment review of Croda Korea CGU represents a further source of significant estimation uncertainty due to the proximity of acquisition and resultant low level of headroom. Post-acquisition trading is in line with expectations. Given the size of the goodwill balances and the carrying values’ sensitivity to the underlying assumptions, small changes could result in a material adjustment to the carrying values in the next financial year.

	Assumption %	Sensitivity %	Increase £m	Decrease £m
Flavours				
Headroom / (Impairment charge): £4m (2022: £(35)m)				
Incremental increase/(decrease) in recoverable amount				
Change in EBITDA compound annual growth rate by:	18.5%	5.0%	44.6	(39.7)
Change in terminal value growth rates by:	3.0%	1.0%	21.7	(16.3)
Change in pre-tax discount rate by:	12.3%	1.0%	(17.7)	22.1

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. The Directors consider these sensitivities to be reasonably possible for Flavours.

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 2023.

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.

In January 2020 the existing US$100m fixed rate 10 year note matured and was repaid, this was replaced with a new US$100m fixed rate 10 year note (27 January 2020). On 27 June 2016, the Group issued £100m (£70m and £30m) and €100m (€70m and €30m) of fixed rate notes. On 6 June 2019, the Group issued a further £65m, €50m and US$60m of fixed rate notes. In June 2023, the existing £30m and €30m fixed rate 7 year notes matured and were repaid.

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

	Book value 2023 £m	**Fair value 2023 £m**	Book value 2022 £m	Fair value 2022 £m
US$100m 3.75% fixed rate 10 year note	(78.5)	(71.5)	(83.0)	(74.4)
€30m 1.08% fixed rate 7 year note	–	–	(26.5)	(26.3)
€70m 1.43% fixed rate 10 year note	(60.8)	(58.2)	(61.9)	(57.8)
£30m 2.54% fixed rate 7 year note	–	–	(30.0)	(29.7)
£70m 2.80% fixed rate 10 year note	(70.0)	(66.1)	(70.0)	(64.8)
€50m 1.18% fixed rate 8 year note	(43.5)	(40.9)	(44.2)	(40.1)
£65m 2.46% fixed rate 8 year note	(65.0)	(59.8)	(65.0)	(58.1)
US$60m 3.70% fixed rate 10 year note	(47.1)	(43.7)	(49.8)	(45.4)

11. Related party transactions

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

12. Business combinations

On 4 July 2023 the Group successfully completed the acquisition of 100% share capital of Solus Biotech Co Ltd 'Solus', a global leader in premium, biotechnology-derived active ingredients for beauty care (Consumer Care sector) and pharmaceuticals (Life Sciences sector) employing 95 people in South Korea. The business was acquired for a total cash consideration of £227.4m. The acquisition provides access to Solus' existing biotech-derived ceramide and phospholipid technologies, and its emerging capabilities in natural retinol. This acquisition will significantly strengthen Croda's Beauty Actives portfolio and increases its exposure to targeted prestige segments. Located in South Korea, Solus expands Croda's Asian manufacturing capability and will create a new biotechnology R&D hub in the region. Post-acquisition the entity has changed its name to Croda Korea Ltd.

Acquisition-related costs of £9.6m have been charged to administrative expenses in the income statement for the year ended 31 December 2023 (2022: £nil). Post-acquisition, Solus contributed revenue of £13.3m and adjusted operating profit of £0.4m. Had the acquisition been made on 1 January 2023, the Group's revenue would have been £1,707.9m with adjusted operating profit of £320.9m.

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

	£m
Cash consideration	227.4
Fair value of assets and liabilities acquired	
Intangible assets	104.3
Property, plant & equipment	9.2
Right of use assets	0.9
Lease liabilities	(1.0)
Cash	3.8
Borrowings	(6.1)
Working capital	8.4
Retirement benefit liabilities	(0.4)
Deferred tax	(21.2)
Total identifiable net assets	97.9
Goodwill	129.5

13. 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. 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
Net assets of the divested business	(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