Press Release

29 July 2022

Results for the six months ended 30 June 2022

Excellent first half performance driving profit growth

Croda International Plc ("Croda" or the "Group") announces its half year results for the six months ended 30 June 2022.

Highlights

	Statutory results (IFRS)						
Half year ended 30 June	2022	2021	change	2022	2021	change	change constant currency
Sales (£m)	1,127.3	934.0	20.7%	1,127.3	934.0	20.7%	18.3%
Operating profit (£m)	288.6	218.5	32.1%	300.4	242.1	24.1%	21.8%
Return on sales (%)				26.6	25.9	70bps	
Profit before tax (£m)	636.5	204.1	211.9%	288.8	229.5	25.8%	23.6%
Basic earnings per share (p)	389.6	110.0	254.2%	155.2	124.0	25.2%	22.8%
Ordinary dividend per share (p)	47.0	43.5	8.0%				
Free cash flow (£m)				21.1	42.7	(50.6)%	

Excellent first half performance

- Delivered record sales, margin and profit
 - Sales up 21%, driven by pricing and improved mix
 - Adjusted profit before tax up 26%, reflecting sales growth and higher return on sales, up 70 bps to 26.6% (2021: 25.9%)
 - o IFRS profit before tax of £636.5m (2021: £204.1m), including £360.6m profit on strategic divestment
 - o Lower free cash flow reflecting investment in working capital to support sales growth
- Strong operating model underpinning strategic progress
 - o Strength and depth of portfolio growth in adjusted profit delivered across Croda businesses
 - o Continued recovery of unprecedented raw material and cost inflation
- Transition to pure-play Consumer Care and Life Sciences business
 - Divestment of majority of Performance Technologies and Industrial Chemicals ("PTIC"; excludes Sipo in China in which Croda has a 65% shareholding)
 - o Creates stronger margin, higher return, less cyclical and lower carbon intensive business
 - o Increases proportion of sales from New and Protected Products ("NPP")
 - Redeployment of divestment proceeds underway enhanced organic investment programme to drive future growth, supported by up to £75m of government co-investment to expand capabilities in pharmaceutical delivery systems

Growth across all sectors and regions

- Strong Consumer Care performance, with sales up 24% and adjusted operating profit 34% higher
 - Sales growth across all four businesses, led by recovery in Beauty Care over last 18 months
 - F&F synergy delivery underway to meet 2025 target, with new geographic presence added
 - Margin expansion return on sales of 26.6% (2021: 24.6%)

- Life Sciences building on exceptional prior year, with sales up a further 14% and adjusted operating profit 4% higher
 - Strong Crop Protection performance, supported by robust market conditions
 - o Good growth of speciality excipients and vaccine adjuvants in Health Care
 - o COVID demand in lipid systems moderating; encouraging pipeline of non-COVID applications
 - Continued best in class margin return on sales of 36.0% (2021: 39.3%)
- Good result in Performance Technologies, with price/mix driving sales 23% higher and return on sales of 18.3% (2021: 15.6%)

	Half year ended 30 June								
Sales	2022						2021		
Galos	£m	Price/mix	Volume	Acquisition	Currency	Change	£m		
Consumer Care	454.9	22.3%	(4.7)%	3.1%	3.3%	24.0%	367.0		
Life Sciences	329.7	0.9%	10.6%	-	2.0%	13.5%	290.4		
Performance Technologies	274.4	32.4%	(11.3)%	-	1.6%	22.7%	223.7		
Industrial Chemicals	68.3	34.5%	(6.5)%	-	1.1%	29.1%	52.9		
Group	1,127.3	22.2%	(5.1)%	1.2%	2.4%	20.7%	934.0		

	Half year ended 30 June						
Adjusted profit	2022 £m	Underlying growth £m	Acquisition impact £m	Currency impact £m	2021 £m	Change	
Consumer Care	121.1	28.7	0.7	1.3	90.4	34.0%	
Life Sciences	118.8	0.9	-	3.7	114.2	4.0%	
Performance Technologies	50.2	15.0	-	0.4	34.8	44.3%	
Industrial Chemicals	10.3	7.5	-	0.1	2.7	281.5%	
Operating profit	300.4	52.1	0.7	5.5	242.1	24.1%	
Net interest	(11.6)				(12.6)	7.9%	
Profit before tax	288.8				229.5	25.8%	

Steve Foots, Chief Executive Officer, commented:

"This is an excellent first half performance, with record sales, margin and profit driven by the strength of our operating model, which enabled continued recovery of unprecedented cost inflation, and the ongoing successful implementation of our strategy.

"A strong Consumer Care performance saw expanded sales of our sustainable technologies, increased geographic coverage in fragrances and margin expansion. The increasing depth and diversity of our Life Sciences portfolio was evident in a strong result in Crop Protection, whilst Health Care built on an exceptional 2021 performance and is developing an exciting pipeline of non-COVID applications.

"With the successful divestment of the majority of our industrials business, our transition to a pure-play Consumer Care and Life Sciences business continues. Croda is becoming a stronger margin, higher return, less cyclical and lower carbon intensive business. Our focused platform and strategy are enhancing both our full year expectations and our medium-term growth prospects."

Outlook

Croda has delivered strong growth in the first half year, with profit ahead of expectations. As a result, we expect full year adjusted profit before tax to be modestly ahead of previous expectations. Growth in the second half year is expected to moderate in consumer markets, together with lower sales in lipid systems on reduced COVID vaccine demand, with full year total lipid sales now expected to be US\$150m, compared with US\$230m in 2021. The improved full year outlook reflects the enhanced strength and breadth of Croda's portfolio, including a more resilient Consumer Care growth platform, strong ongoing demand in Crop Care, albeit against a tougher second half comparator, and Health Care enjoying good growth overall. Growth beyond 2022 is further supported by a strong innovation pipeline, notably in non-COVID Health Care applications, and our targeted capital investment programme.

Croda will host an investor seminar on its Health Care business on 5 October 2022.

Further information:

An analyst presentation will be available via webcast at 1000 BST on 29 July 2022 at <u>www.croda.com/investors</u>.

FOI Eliquites C	Unidul.	
Investors:	David Bishop, Croda	+44 7823 874428
Press:	Charlie Armitstead, Teneo	+44 7703 330269

Notes:

All comparisons are with the 2021 first half year, unless otherwise stated.

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

The measures used in this statement include:

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

Croda International Plc

Group Performance Review

We use a number of APMs to assist in presenting information in this statement in an easily analysable and comparable form (see page 3 for definitions).

Excellent first half performance driven by successful strategy implementation

Croda delivered an excellent performance in the first half year, with record sales, margin and profit. This demonstrates the power of our operating model and the strength and depth of the business portfolio, delivering growth across Croda's businesses, together with continued recovery of unprecedented cost inflation.

The sale of the majority of the Performance Technologies and Industrial Chemicals ("PTIC") business on 30 June continues Croda's transition to a pure-play Consumer Care and Life Sciences company. This is creating a stronger margin, higher return, less cyclical, more knowledge intensive and lower carbon intensive business.

The divestment releases more capital to invest in future growth, with capital redeployment already underway. We have eight growth businesses, four in Consumer Care and four in Life Sciences, supported by a new Industrial Specialties business to manage the retained part of the PTIC business. All eight businesses target growth of at least one and a half times global GDP across the cycle, focusing on developing trends in existing and emerging markets, notably greater demand for sustainable solutions and reliable delivery systems.

The strength and depth of these eight businesses was seen in the first half year performance. Consumer Care saw sales up 24% and adjusted operating profit 34% higher. Encouragingly, Beauty Care has continued to lead this growth over the last 18 months. Life Sciences built on an exceptional prior year, when COVID treatments peaked, with 14% sales growth and a 4% adjusted operating profit increase in the first half year. A strong Crop Protection performance was supplemented by good growth in speciality excipients and vaccine adjuvants, delivering a best-in-class margin for the sector.

As a pure play Consumer Care and Life Sciences company, our capabilities in sustainability and innovation will translate into consistent top line growth and increased margins, delivering consistent, superior returns.

Strong pricing and resilient volume

The Group achieved robust sales in all sectors and regions. Group sales grew by 21% to £1,127.3m (2021: £934.0m). Underlying sales rose by 17%, with price/mix 22% higher and volume 5% lower. Global supply chain challenges intensified, partly due to the conflict in Ukraine, leading to significant cost inflation which we continued to recover, demonstrating the strength of Croda's business model. In addition, price/mix benefitted from an improved product mix and de-marketing of lower margin products in light of capacity constraints, which eased as the first half year progressed. After strong consumer demand and customer restocking in 2021, volume moderated as customers normalised inventory levels as service levels improved and with our selective de-marketing programme.

Profit before tax (on an IFRS basis) increased by £432.4m to £636.5m (2021: £204.1m), including a profit of £360.6m on the divestment of the majority of PTIC. Adjusting for this one-off benefit and other similar items itemised in the Finance Review, adjusted profit before tax rose by 26% to a record first half year result of £288.8m (2021: £229.5m). Return on sales was 70 basis points higher than the prior year period at 26.6% (2021: 25.9%). This included a benefit of around 1.5 percentage points from a lower charge for variable remuneration, reflecting the impact of a reduction in the Group's share price versus the prior period, partly offset by the formulaic impact of the higher sales prices to recover cost inflation.

Free cash flow reduced to £21.1m (2021: £42.7m), with working capital increasing principally from the impact of significantly higher prices on inventories and receivables.

Reinvesting the proceeds of divestment

On 30 June 2022, Croda divested the majority of its PTIC businesses to Cargill for gross proceeds of €775m (£665m). This divestment included four manufacturing sites, and laboratories and sales offices in 14 countries. It excluded the potential sale of Croda Sipo in China in which we have a 65% shareholding. We continue to explore with our partner the acquisition of their 35% stake in Sipo to enable a subsequent sale to Cargill of 100% of Sipo for €140m.

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

The first half year saw investment in organic capital expenditure of £61.8m (2021: £81.6m), which included £6m to conclude our expansion of a UK PTIC site which has now been divested. This spend reflects our typical capital investment of around 6% of sales, around £100m annually, which includes delivering our carbon reduction roadmaps as part of our sustainability Commitment. In addition, within the Life Sciences Health Care business, drug delivery offers a significant opportunity for faster growth by investing in new manufacturing capacity to serve global pharmaceutical markets. We are investing an extra £160m over the period 2021 to 2024 to broaden our footprint and capabilities in lipid systems and drug delivery. Alongside our investment, the US and UK governments are co-investing up to £75m, recognising the importance of new generation delivery systems to global pandemic preparedness and drug discovery.

We expect to supplement our organic plan with selective acquisitions to add adjacent and complementary technologies, particularly those which can accelerate our transition to greater use of natural raw materials or build our platforms in Health Care, enhancing future growth. All of this will be completed within our clear capital allocation policy, to provide a regular dividend to shareholders and to operate with an appropriate balance sheet. The Board has increased the interim ordinary dividend by 8% per share to 47.0p (2021: 43.5p). Debt leverage reduced to 0.6x (2021: 1.7x) and the Board will monitor the Group's ongoing capital requirements, alongside any surplus capital, in line with our policy.

Growth across the businesses

Most encouraging was that the first half year growth in sales and profit was delivered across almost all of Croda's businesses, reflecting the strength of Croda's portfolio. Continuing the strong regional recovery of the last eighteen months, Asia first half sales grew by over 30%. Sales in China reached a record level during the first quarter and remained above the prior period in April, despite local COVID lockdowns, before recovering strongly in May. North America continued its strong growth, up over 20%. Excellent regional crop demand contributed to over 30% growth in Latin America sales. Europe delivered a double-digit percentage sales increase, despite the adverse impact of the conflict in Ukraine.

Strong Consumer Care performance

Consumer Care was the stand-out performer in the first half year, growing sales by 24% to £454.9m (2021: £367.0m), increasing adjusted operating profit by over £30m to £121.1m (2021: £90.4m) and IFRS operating profit by 40%. Return on sales reached 26.6% (2021: 24.6%). On an underlying basis, price/mix increased by 22%, driven by cost inflation recovery, while volume was 5% lower, reflecting selective de-marketing of lower margin business and the strong comparator in 2021 that included the benefit of customer restocking on top of robust consumer demand. Acquisitions added 3% to overall sales growth, as did the impact of currency translation.

Delivery of our Strengthen to Grow strategy is progressing well, positioning Consumer Care as an even more resilient growth platform. Of the four businesses, Beauty Care, which comprises the majority of personal care sales, had experienced a variable performance from 2018 to 2020, with a good margin but inconsistent sales growth. The last 18 months has seen consistent growth, focused on skin care, hair care and solar protection, driven by a structural shift in behaviour by customers and consumers towards sustainable ingredients. Greater innovation by Croda is being delivered as part of an enhanced formulation capability, with the US ECO range of bio-based surfactants and an exciting pipeline in biotech particularly noteworthy. Alongside this, Beauty Actives continues to lead the market in prestige skin ingredients and its recent acquisition of Alban Muller has brought complementary natural actives to this innovative area.

Home Care was the only Consumer Care business not to deliver profit growth, as we invested in expanded manufacturing capacity to accelerate the roll out of its high value protein ingredients for fabric care. The Fragrances & Flavours (F&F) business saw some recovery in emerging market growth, alongside benefits from the integration of fine fragrances from the Parfex acquisition. Delivery of sales synergies from the Iberchem acquisition in 2020 is underway to meet our 2025 target, with new geographic presence and the development of formulation centres to leverage cross-selling opportunities between Croda's ingredients and fragrances.

Life Sciences building on exceptional prior year

Following an outstanding year for Life Sciences in 2021, with the rapid expansion of Health Care following the Avanti acquisition and related COVID vaccine delivery sales, the first half of 2022 has seen further progress, this time driven by an excellent performance in Crop Protection. Sector sales increased by 14% to £329.7m (2021: £290.4m), increasing adjusted operating profit by 4% to £118.8m (2021: £114.2m) and IFRS operating profit by 12%. With Crop Protection a larger proportion of the sales mix, return on sales reduced to 36.0% (2021: 39.3%). Price/mix grew by 1%, while volume was 11% higher. Currency translation added 2% to overall sales growth.

Our strategy to Expand Life Sciences continues to be effective, focusing on building out our crop science and pharmaceutical platforms. Crop Protection was the standout business, building on a strong performance in the second half of last year, with a combination of high demand and significant commodity inflation. Working collaboratively with its crop science customers, innovation to improve yields sustainably is a key driver of growth. Syngenta awarded Croda its "Reduction in Carbon" supplier award, recognising the carbon benefits in use of Croda's products and the customer benefits delivered by our sustainability strategy. We also saw continued growth in the Seed Enhancement business.

Building on success in 2021, Health Care also delivered sales growth across all of its platforms other than the lipid systems business, which experienced peak COVID sales in the prior period. Alongside a good performance in Consumer Health, recent investment in capacity expansion in Patient Health platforms enabled a continued strong sales growth in vaccine adjuvants and speciality excipients.

2020 saw the fast-track approval of COVID-19 vaccines using the new mRNA technology. Croda was the first company to supply clinical and commercial quantities of critical lipid systems to support the roll-out of COVID-19 vaccines globally. COVID-19 sales from lipid systems peaked in 2021 at US\$190m and are expected to decline steadily through to 2024, with a regular demand thereafter. Progressively offsetting this will be an encouraging pipeline of R&D projects using lipids for non-COVID applications, based on the Avanti lipid R&D business.

First half total sales of lipid systems for COVID and non-COVID applications were US\$90m, with full year sales expected to be around US\$150m (2021: US\$230m). We expect total lipid sales to be around US\$120m in 2023 and 2024, returning to growth from 2025 as clinical opportunities in mRNA and nucleic acids develop and convert into commercial scale projects, leveraging Croda's wider scale-up capability, driving medium term expansion in line with the Avanti acquisition plan.

The Health Care business has had outstanding early success with its involvement in COVID-19 vaccines, but, more importantly, we have built a foundation for Croda in biological drug delivery. We are investing to expand our capability across our three Patient Health platforms, and secured 30 new customers and 80 new clinical and pre-clinical programmes in the first half of 2022, bringing the total to 330. More than three quarters of these programmes are for non-COVID applications, up from two thirds just six months ago. In lipid systems, all of the new programmes are for non-COVID applications, and we are now involved in more oncology and gene editing trials than we are for COVID. These include supplying lipids to a customer which recently completed the world's first ever dosing of a patient with a gene editing therapy, as part of a phase one clinical trial for the treatment of heart disease.

Industrial Specialties established

Following the recovery of Performance Technologies during 2021, sector sales grew by 23% in the first half of 2022 to £274.4m (2021: £223.7m), increasing adjusted operating profit by 44% to £50.2m (2021: £34.8m). Cost inflation was most significant in this sector, with sales/price mix up 32% but volume 11% lower, compared with a strong comparator. IFRS profit was £49.2m (2021: £31.3m).

Following the divestment, Croda's retained business within PTIC will form a new Industrial Specialties ("IS") sector. IS will play a critical role in Croda's integrated model, supporting the efficiency of the Consumer Care and Life Sciences sectors.

Delivering our strategy as a pure-play Consumer Care and Life Sciences company Strategy overview

Through our strategy implementation, including the Avanti and Iberchem acquisitions and the divestment of most of our industrial business, Croda is becoming a pure-play company, focused on life science and consumer markets. These markets have reduced cyclicality, are faster growth, more capital and carbon light, and value innovation, delivering higher margins.

Our strategy combines leadership in *sustainability* with market-leading *innovation* to deliver *profitable growth*. Sustainability trends are developing rapidly in our markets, as consumers look to make a positive contribution to living more sustainably through the products they buy. This is helping Croda to win market share as customers look for sustainable alternatives that existing supply chains cannot offer. We are reinforcing our sustainability leadership in four ways; firstly, increasing the level of bio-based ingredients, in response to customer demands to 'de-fossil' their ingredients; secondly, innovating to meet the future sustainability demands of consumers; thirdly, decarbonising our manufacturing processes and supply chains – by achieving our Science Based Target by 2030, Croda will provide every customer with an average 35% reduction in Scope 3 (supply chain) carbon emissions associated with those purchases; and fourthly, ensuring our sourcing activities have a positive impact on the communities and environments involved in our supply chains.

Alongside sustainability, our innovation engine enables us to both create new market niches through novel product offerings and win business in existing markets by providing sustainable alternatives to incumbent petrochemical derived supply. Through innovation, we deliver our strategic objective of consistent top and bottom line growth, with profit growing ahead of sales, ahead of volume. This supports our purpose, Smart science to improve lives[™].

Delivering our sustainability Commitment

Our Commitment is to be the world's most sustainable supplier of innovative ingredients. In 2022 we are progressing execution of our plan, working in partnership to become Climate, Land and People Positive by 2030.

To be Climate Positive, our verified carbon reduction target will ensure we contribute to limiting the global temperature rise to no more than 1.5°C above the pre-industrial level. To achieve this, we are investing in decarbonisation roadmaps for all our sites, funded within our existing capital budget. Projects in 2022 include approved expenditure on a new biogas boiler to help decarbonise our Delaware site in the USA. We are expanding the scope of our Land Positive Commitment, joining the World Business Council for Sustainable Development and its Nature programmes, with the aim of being an early adopter of the future Science-Based Targets for Nature when published. Our People Positive objective covers both our communities and our people. We focus on using our smart science to improve lives globally and have committed a further £1m to the Croda Foundation this year. Projects already benefiting from the Foundation include the British Asian Trust, which is supporting vaccine infrastructure in India, and Instituto Amazonia, which supports remote indigenous communities in Brazil. We are also committed to improving the experience of the people we employ, achieving Board gender parity in 2022 and making progress on our workforce diversity targets.

Supporting our sustainability Commitment, we are committed to being a safe company. In 2022, we have set a stronger safety target, with an objective to reduce our Total Recordable Incident Rate ("TRIR") to 0.3 by 2025, which requires us to more than halve the 2021 rate of 0.73. Our Senior Leadership team met in May to commit to the actions to deliver this.

We are reflecting the impact of the divestment of the majority of PTIC in our sustainability targets. Scope 1 and 2 emissions reduced by 26% as a result of the divestment and we are less carbon intensive; however, we are re-baselining our decarbonisation target to maintain the original challenge. By contrast, PTIC was a significant user of bio-based organic raw materials and the divestment has reduced this proportion from 64% to 55%. However, we will retain our bio-based target of 75% by 2030 and are developing bolder plans, including a global ambition to move away from fossil-derived ethylene oxide ("EO") as a surfactant feedstock, building on our US transition to biobased EO and enabling us to deliver a lower carbon footprint to customers globally. The divestment has also reduced our land use footprint by 47% but we will retain our existing target to save 200,000 hectares more land than we did in 2019, through the application of our crop science technologies.

Driving innovation

Our innovation programme is fuelling future growth at Croda and we are stepping up innovation with more resource investment, more external partnerships and a focus on "big bet" projects. This is supporting higher growth, improved mix and better margin as we position as a more knowledge-intensive company.

Our innovation strategy combines our own R&D with external technology investments and partnerships, augmenting Croda's innovation centres globally with a network of over 500 academic and SME partners, working on more than 100 innovation projects. Our big bet projects aim to deliver significant incremental sales. These are harnessing the potential of biotechnology, alongside our traditional chemical technologies, and reinforcing our leadership position in formulation science. *Scaling biotech* will transform our approach to sustainability, particularly in reducing customer Scope 3 carbon emissions and includes projects to develop more sustainable actives and bio-based fragrance ingredients. Early-stage research is led by our five biotech laboratories, established through technology acquisitions over the last decade. Candidate technologies are then scaled up at application laboratories in Paris and two UK facilities, before being taken to market by existing business units. For example, Beauty Actives is launching novel anti-ageing and anti-dandruff ingredients derived from biotechnology and our Beauty Care business is adding biotech-derived surfactants to our existing ECO range to meet customers' needs.

In the first half year, NPP as a proportion of total sales was 33% (2021: 38%), the reduction due to the strong performance of the Beauty Care and Crop Protection businesses where NPP sales are lower. The divestment of the majority of PTIC, with a relatively low proportion of NPP sales, results in the proportion of Group NPP sales increasing to 37%.

Sector strategies to deliver consistent growth and even stronger margins

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

Our vision for *Consumer Care* is to be the global leader in sustainable solutions in premium markets. Our strategy is to *Strengthen to Grow* Consumer Care, to deliver mid-single digit percentage annual sales growth, together with the synergies from the Iberchem acquisition, at a margin of over 25%. Within Consumer Care's four businesses, this strategy is being achieved by:

- Scaling our market leadership in *Beauty Actives* in peptides, botanicals and biotechnology;
- Strengthening Beauty Care, with sustainable ingredients and full service formulation capabilities;
- Driving integration synergies in F&F by expanding Croda's presence in emerging markets and providing Iberchem
 with access to Croda's developed market presence, while supporting one-stop-shop formulations and developing
 more sustainable fragrances; and
- Accelerating Home Care in sustainable cleaning and fabric care technologies.

Our vision for *Life Sciences* is to become the global leader in biological drug delivery in Health Care, alongside our leadership in sustainable delivery systems for Crop Care. Our strategy is to *Expand to Grow* Life Sciences to deliver high single digit percentage sales growth with a strong return on sales, above 30%. Within the four Life Sciences businesses, this strategy is being achieved by:

- Expanding our platforms in *Patient Health* by identifying and acquiring new platforms, and growing them organically through targeted investment;
- Continuing to grow in Consumer and Veterinary Health;
- Innovating in *Crop Protection* to expand our industry-leading range of sustainable delivery systems, and develop systems for next generation biopesticide delivery; and
- Creating long-term partnerships in Seed Enhancement, including providing seed coatings that are free from microplastics.

Supporting our strategies in *Consumer Care* and *Life Sciences* and in *scaling Biotech*, we are investing to *Fast Grow China*, where we are creating a combined Beauty Actives and F&F manufacturing facility to grow domestic sales; deliver *proactive acquisitions*, where we are exploring acquisition opportunities to supplement our organic capital redeployment; and *improve our customer and employee experience*, where we are expanding our customer insight and measuring our Net Promotor Score ("NPS"), whilst developing more digital connectivity and self-serve data for customers.

2022 Outlook

Croda has delivered strong growth in the first half year, with profit ahead of expectations. As a result, we expect full year adjusted profit before tax to be modestly ahead of previous expectations. Growth in the second half year is expected to moderate in consumer markets, together with lower sales in lipid systems on reduced COVID vaccine demand, with full year total lipid sales now expected to be US\$150m, compared with US\$230m in 2021. The improved full year outlook reflects the enhanced strength and breadth of Croda's portfolio, including a more resilient Consumer Care growth platform, strong ongoing demand in Crop Care, albeit against a tougher second half comparator, and Health Care enjoying good growth overall. Growth beyond 2022 is further supported by a strong innovation pipeline, notably in non-COVID Health Care applications, and our targeted capital investment programme.

Finance Review

Currency translation

Sterling weakened during the period against the US Dollar (US\$1.301 (2021: US\$1.388)) but was slightly stronger against the Euro (€1.189 (2021: €1.152)). Currency translation benefitted sales by £22.2m and adjusted operating profit by £5.5m. Transactional currency impact is correlated with translation, given that the UK and EU are meaningful centres of production for the Group, with the weakness of Sterling and the Euro positively impacting margins, particularly from Europe into US Dollar priced markets.

Strong sales from organic growth

Sales grew by 20.7% to £1,127.3m (2021: £934.0m), driven by underlying growth of 17.1%. Acquisitions added 1.2% and currency translation 2.4%. Within underlying growth, sales/price mix improved by 22.2%, with the successful recovery of cost inflation estimated to have added 20 percentage points and mix 2%. Group volume reduced by 5.1%, with demarketing of lower margin products in light of capacity constraints and an end to the customer restocking seen in 2021 when supply chain worries were significant. Consumer Care volume reduced by 4.7% against a strong comparator in 2021 that included the benefit of customer restocking on top of robust consumer demand. Life Sciences volume grew on strong crop demand by 10.6% and the largest volume decline, of 11.3%, was seen in Performance Technologies, again against a strong comparator.

	Hair year ended 30 June						
Sales	2022 £m	Price/mix	Volume	Acquisition	Currency	Change	2021 £m
Consumer Care	454.9	22.3%	(4.7)%	3.1%	3.3%	24.0%	367.0
Life Sciences	329.7	0.9%	10.6%	-	2.0%	13.5%	290.4
Performance Technologies	274.4	32.4%	(11.3)%	-	1.6%	22.7%	223.7
Industrial Chemicals	68.3	34.5%	(6.5)%	-	1.1%	29.1%	52.9
Group	1,127.3	22.2%	(5.1)%	1.2%	2.4%	20.7%	934.0

Helf week ended 20 lune

Record profit and margin

The first half year saw an acceleration in raw material inflation, with constrained supply chains accentuated by the conflict in Ukraine, and our average basket of raw materials was up 25% between December 2021 and June 2022. Inflation in operating costs also accelerated, most notably in energy, logistics and salary costs. Croda's powerful business model enabled continued recovery of this significant inflation, with absolute profit protected and margin enhanced through selective de-marketing of lower margin products, in light of capacity constraints, and product mix. In addition, the impact of higher inflation and bond yields on the Group's share price resulted in a lower charge for variable remuneration, benefitting Group return on sales by approximately 1.5 percentage points.

		2022				
	IFRS	Adjustments	Adjusted	IFRS A	Adjustments	Adjusted
	£m	£m	£m	£m	£m	£m
Sales	1,127.3	-	1,127.3	934.0	-	934.0
Cost of sales	(591.3)	-	(591.3)	(463.5)	-	(463.5)
Gross profit	536.0	-	536.0	470.5	-	470.5
Operating costs	(247.4)	(11.8)	(235.6)	(252.0)	(23.6)	(228.4)
Operating profit	288.6	(11.8)	300.4	218.5	(23.6)	242.1
Gain on business disposal	360.6	360.6	-	-	-	-
Net interest charge	(12.7)	(1.1)	(11.6)	(14.4)	(1.8)	(12.6)
Profit before tax	636.5	347.7	288.8	204.1	(25.4)	229.5
Тах	(90.1)	(20.7)	(69.4)	(50.0)	6.0	(56.0)
Profit after tax	546.4	327.0	219.4	154.1	(19.4)	173.5

IFRS operating profit was £288.6m (2021: £218.5m) and profit before tax £636.5m (2021: £204.1m). IFRS profit before tax included a profit on the PTIC divestment of £360.6m and a charge for other adjusting items of £12.9m (2021: £25.4m), of which the charge for amortisation of intangible assets was £17.3m (2021: £16.8m), a gain on contingent consideration of £5.5m (2021: £3.1m charge) and interest on discount unwind of contingent consideration £1.1m (2021: £1.8m). Exceptional items in the prior half year also included business acquisition and disposal costs of £3.7m.

Adjusted operating profit, measured excluding the adjusting items above, increased by 24.1% to £300.4m (2021: £242.1m), reflecting the higher sales and improved margin. Return on sales improved to 26.6% (2021: 25.9%). Adjusted profit before tax increased by 25.8% to £288.8m (2021: £229.5m).

The effective tax rate on adjusted profit was 24.0% (2021: 24.4%). The effective tax rate on IFRS profit was 14.2% (2021: 24.5%) as the Group utilised eligible corporate tax exemptions on its profit from the PTIC divestment. There were no significant adjustments between the Group's expected and reported tax charge based on its accounting profit. IFRS basic earnings per share (EPS) were 389.6p (2021: 110.0p) and adjusted basic EPS increased by 25.2% to 155.2p (2021: 124.0p).

Profit performance was strong across all sectors. In Consumer Care, the successful recovery of inflation and selective demarketing resulted in adjusted operating profit up 34.0%. In Life Sciences, adjusted operating profit grew by 4.0%, despite a prior year comparator buoyed by demand for COVID-19 vaccines, with the first half year driven by strong growth in Crop Protection. Performance Technologies and Industrial Chemicals also delivered good profit performances, with adjusted operating profit increasing by 44% and 281% respectively.

	2022				2021		
Operating profit	IFRS	Adjustments	Adjusted		Adjustments	Adjusted	
Operating profit	£m	£m	£m	£m	£m	£m	
Consumer Care	110.9	(10.2)	121.1	79.4	(11.0)	90.4	
Life Sciences	118.2	(0.6)	118.8	105.1	(9.1)	114.2	
Performance Technologies	49.2	(1.0)	50.2	31.3	(3.5)	34.8	
Industrial Chemicals	10.3	-	10.3	2.7	-	2.7	
Group	288.6	(11.8)	300.4	218.5	(23.6)	242.1	

This profit growth primarily reflected an improvement in underlying growth across the sectors, with no material benefit from acquisitions (covering the first 12 months of ownership) and a £5.5m benefit from currency translation against prior year.

		Half year ended 30 June						
Adjusted profit	2022 £m	Underlying growth £m	Acquisition impact £m	Currency impact £m	2021 £m	Change		
Consumer Care	121.1	28.7	0.7	1.3	90.4	Change 34.0%		
Life Sciences	118.8	0.9	-	3.7	114.2	4.0%		
Performance Technologies	50.2	15.0	-	0.4	34.8	44.3%		
Industrial Chemicals	10.3	7.5	-	0.1	2.7	281.5%		
Operating profit	300.4	52.1	0.7	5.5	242.1	24.1%		
Net interest	(11.6)				(12.6)	7.9%		
Profit before tax	288.8				229.5	25.8%		

Impact of PTIC divestment

On 22 December 2021, the Group announced an agreement to divest the majority of the PTIC business. The separation process continued through the first half year and the principal divestment completed on 30 June 2022 for gross proceeds of €775m (£665m), subject to customary adjustments for separation costs and cash/debt-like items. This divestment excluded the sale of Croda Sipo in China in which we have a 65% stake; subject to reaching agreement with our partner to allow Croda to first acquire 100% of Sipo, subsequent sale proceeds from Cargill of €140m for 100% of the equity have been agreed. A profit before tax on the first disposal of £360.6m has been recognised in these results. The completion accounts process will be finalised in the second half of the year.

The divested business was not defined as a discontinued operation in the period as Croda is not exiting a geographical area of operation and we are retaining a proportion of PTIC which will be reported as Industrial Specialties. In the first half of 2022, PTIC revenue totalled £342.7m and adjusted operating profit was £60.5m. Taking account of the sales and profit to be retained by Croda under future supply agreements for products manufactured at Croda retained sites and supplied to the acquirer, together with dis-synergy costs remaining with Croda which were previously allocated to the divested business, the estimated impact of the divestment on these results, had it occurred on 1 January 2022, would have been to reduce revenue by £191m and adjusted operating profit by £39m.

Lower free cash flow reflecting investment in working capital

Free cash flow reduced to £21.1m (2021: £42.7m), primarily due to a £183.8m increase in working capital. Of this increase in working capital, approximately £121m reflected the impact of increased sales and raw material costs, at a constant "days cover". The Group did not experience any deterioration in debt collection, with the remaining £63m primarily reflecting higher accounts receivables to support sales growth and a change in business mix in the period. Second half year working capital is expected to improve, particularly if recent inflation moderates.

	Half year ended 3	30 June
	2022	2021
Cash flow	£m	£m
Adjusted operating profit	300.4	242.1
Depreciation and amortisation	43.5	38.2
EBITDA	343.9	280.3
Working capital	(183.8)	(98.4)
Net capital expenditure	(61.8)	(81.6)
Payment of lease liabilities	(8.8)	(6.8)
Non-cash pension expense	5.0	6.1
Interest & tax	(73.4)	(56.9)
Free cash flow	21.1	42.7
Dividends	(78.8)	(71.8)
Acquisitions	(14.2)	(55.5)
Business disposal net of cash in disposed businesses	613.4	-
Other cash movements	(22.1)	5.4
Net cash flow	519.4	(79.2)
Net movement in borrowings	154.3	77.5
Net movement in cash and cash equivalents	673.7	(1.7)

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

- Reinvest for growth invest in organic capital expenditure to drive shareholder value creation through new capacity, product innovation and expansion in attractive geographic markets to drive sales and profit growth. Net capital expenditure in the first half year was £61.8m (2021: £81.6m) as we access faster growth market opportunities;
- 2. **Provide regular returns to shareholders** pay a regular dividend to shareholders, representing 40 to 50% of adjusted earnings over the business cycle. The interim dividend has been raised by 8% to 47.0p (2021: 43.5p);
- Acquire disruptive technologies to supplement organic growth, target a number of exciting technology acquisitions in existing and adjacent markets, with a focus on strengthening our Consumer Care business and expanding in Life Sciences; and
- 4. Maintain an appropriate balance sheet and return excess capital maintain an appropriate balance sheet to meet future investment and trading requirements, targeting a leverage ratio of 1 to 2x over the medium-term cycle. We consider returning excess capital to shareholders when leverage falls below our target range and sufficient capital is available to meet our investment opportunities. With the receipt of the divestment proceeds on 30 June 2022, closing net debt was £331.3m (31 December 2021: £823.2m) and the leverage ratio reduced to 0.6x (31 December 2021: 1.4x).

As at 30 June 2022, the Group had committed funding in place of £1,337.8m, with undrawn long-term committed facilities of £263.4m and £786.4m in cash. Post period end, a proportion of the proceeds was used to pay down outstanding Sterling and Euro balances on the Group's revolving credit facility and to pay off and cancel a term loan associated with a previous acquisition.

Retirement benefits

The post-tax asset on retirement benefit plans at 30 June 2022, measured on an accounting valuation basis under IAS19, improved to £80.9m (31 December 2021: £5.8m), primarily due to higher discount rates. Cash funding of the various plans is driven by the schemes' ongoing actuarial valuations. The triennial actuarial valuation of the largest pension plan, the UK Croda Pension Scheme, was performed as at 30 September 2020 and indicated that the scheme was 101% funded on a technical provisions basis. Consequently, no deficit recovery plan is required.

Sector Performance Review

Strong Consumer Care performance

Consumer Care was the stand-out performer in the first half year, growing sales by 24% and adjusted operating profit by over £30m. Delivery of our Strengthen to Grow strategy is progressing well, ensuring Consumer Care is an even more resilient growth platform. Of the four businesses, Beauty Care led the way, completing 18 months of consistent sales growth, driven by customer and consumer demand for sustainable ingredients, supported by an enhanced formulation capability. Beauty Actives continues to lead the market in prestige skin ingredients and the recent acquisition of Alban Muller has added complementary natural actives to the portfolio. Home Care is rolling out high value protein ingredients and the F&F business continued to build sales synergies, alongside benefits from the integration of last year's Parfex acquisition.

Sales reached £454.9m (2021: £367.0m), adjusted operating profit was £121.1m (2021: £90.4m) and IFRS operating profit £110.9m (2021: £79.4m). Price/mix increased by 22%, driven by cost inflation recovery. Volume was 5% lower, reflecting a strong prior year comparator, which had benefited from a post-COVID resurgence in consumer demand and customer restocking, together with selective de-marketing of lower margin business in the first half of 2022. Acquisitions added 3% to overall sales growth, as did currency translation.

The successful recovery of inflation ensured that profit was protected. A positive business mix, which benefited from selective de-marketing supplemented by a lower variable remuneration charge, resulted in return on sales increasing by 200 basis points to 26.6% (2021: 24.6%). This drove adjusted operating profit 34% higher.

Our strategic vision for Consumer Care is to be the global leader in sustainable solutions in premium markets. Our strategy is to Strengthen to Grow Consumer Care, delivering annual sales growth of mid-single digit percentage, supplemented by synergies from the F&F acquisitions. The target is to deliver a return on sales in excess of 25%.

2022 has seen the continued implementation of our strategy. Beauty Actives has clear market and innovation leadership. We are expanding our range of skin active technologies, from Sederma's high performance peptide chemistry, based around the Matrixyl range, to botanicals and natural actives. Recent launches have included Silverfree, a peptide that reduces grey hair, and BB-Biont, designed to enhance consumer wellbeing by minimising acne-related disorders and promoting a healthy skin microbiome. Within the biotech pipeline, opportunities include novel anti-ageing and anti-dandruff ingredients derived from "blue" biotechnology, which will be taken to market by Sederma. 2022 also sees the launch of a differentiated retinol anti-aging active; by encapsulating the active, we have improved skin penetration by more than nine times, while creating the most sustainable retinol-containing complex on the market, by ensuring its effects last twice as long. As part of our Fast Grow China strategic initiative, and with China forecast to be the fastest growing consumer care market over the next five years, a site has been acquired to build a botanicals and fragrance plant, in partnership with the F&F business.

Beauty Care is being strengthened to deliver more consistent top line growth, through sustainable ingredients and an expanded full service formulation capability, giving smaller customers greater access to formulations containing Croda's high performance ingredients. We are seeing a structural shift in behaviour by customers and consumers towards sustainable ingredients and Croda is exceptionally placed to deliver this, with future growth driven by bio-based and milder surfactants, supported by an exciting pipeline of biotech-based ingredients. Sales of ECO bio-based surfactants in North America continue to accelerate, alongside the development of biotech-derived surfactants to provide a wider range of sustainable options for customers. These aim to deliver an increase in the bio-based portfolio of the business, with an ambition to eliminate petrochemical derived surfactants globally by 2030. Beauty Care is also focused on higher value add capabilities in solar protection and hair care, the fastest growing parts of the portfolio. Consumer preference for innovative mineral-based sunscreens saw sales of UV filters grow strongly in North America and Asia.

Eighteen months following acquisition, F&F is driving integration synergies, targeting delivery of almost €50m of additional annual sales synergies by 2025. We are expanding Croda's presence in emerging markets, where Iberchem is already focused, while providing Iberchem with access to Croda's developed market presence. In 2022, we have expanded our presence in Indonesia and South Africa, and launched F&F in Brazil, leveraging Croda's personal care strength. The 2021 acquisition of Parfex has expanded our presence in fine fragrances and built our market position in France. Beauty Care and F&F are combining to build Formulation Centres across the world, supporting a "one stop shop" formulation capability for smaller and "indie" customers. 2022 saw the launch of VernovaCaps, a biodegradable fragrance capsule, only the second encapsulated product on the market and the only technology which meets the OECD's definition of being readily biodegradable. The technology has been taken up in fabric conditioners and will be extended to other customer applications over time.

Home Care is accelerating the growth of sustainable, high value technologies for cleaning and fabric care, supporting a multinational relaunch in fabric conditioners. Manufacturing capacity for specialist proteins that extend the life of fabrics is being added.

Investments in organic expansion form part of the redeployment of capital from the PTIC divestment into innovative, fast growth markets. Investment is focused on expanding sustainable technologies and increasing geographic coverage, particularly in China. This will be supplemented by targeted acquisition of adjacent technology bolt-ons, particularly those which can accelerate the transition to greater use of natural raw materials and higher value-add applications. The sector is also benefiting from Croda's biotech investment, leveraging past technology acquisitions, such as Nautilus' marine ingredients, to bring new innovative ingredients to market. NPP remains strong at 40% (2021: 44%) of total sector sales, with the decline in the first half year reflecting strong growth in lower NPP businesses, including a greater inflationary/sales price impact in non-NPP product areas.

Life Sciences building on exceptional performance in 2021

Following an outstanding year for Life Sciences in 2021, with the rapid expansion of Health Care following the Avanti acquisition and related COVID vaccine delivery sales, the first half of 2022 has seen further progress. Sales increased by 14% and adjusted operating profit by 4%. Implementation of our strategy to expand Life Sciences continues apace. Across the four businesses, Crop Protection led the way, with strong sales growth supported by favourable market conditions. We also saw steady growth in Seed Enhancement, with its innovative microplastic-free product innovation. Consumer Health delivered robust sales, whilst Patient Health consolidated on its stellar growth in 2021, with continued expansion in its speciality excipient and vaccine adjuvant platforms helping offset lower demand in lipid systems, as COVID vaccine sales declined from peak 2021 demand.

Sales increased to £329.7m (2021: £290.4m), adjusted operating profit was £118.8m (2021: £114.2m) and IFRS operating profit was £118.2m (2021: £105.1m). Volume was 11% higher and price/mix grew by 1% with the benefit from inflation cost recovery largely offset by the higher proportion of Crop Protection sales. Currency translation added 2%. With the increased crop mix, return on sales reduced to 36.0% (2021: 39.3%), with the lower variable remuneration charge also benefitting margin. We continue to expand our innovation capability, with NPP 43% (2021: 51%) of total sector sales, the first half decline reflecting the lower proportion of lipid system sales and the mix impact of stronger crop sales with less NPP content.

Our strategic vision for Life Sciences is to become the global leader in biological drug delivery in Health Care, alongside our existing leadership in sustainable delivery systems for Crop Care. Our strategy is to Expand Life Sciences, delivering annual sales growth of high single digit percentage at a target return on sales in excess of 30%.

2022 sees the continued implementation of this strategy, building out our crop science and pharmaceutical platforms. Crop Protection was the standout business, building on a strong performance in the second half of last year, as global markets have responded to a combination of high global demand and significant commodity inflation. Working collaboratively in partnership with its crop science customers, innovation to improve yields sustainably is a key driver of growth. Syngenta awarded Croda its "Reduction in Carbon" supplier award, recognising the carbon benefits in use of Croda's products and the customer benefits delivered by our sustainability strategy. We are investing in Life Sciences to develop innovative sustainable solutions in Crop Care, focused on developing systems for next generation biopesticide delivery that use microbials and RNA.

Crop Protection was supported by continued growth in the Seed Enhancement business, with field crop demand particularly strong. As an innovation partner to leading crop science companies, our range of seed coatings that are free from microplastics have now been proven in field trials across a variety of vegetable seeds and field crops, opening up a significant medium-term sales pipeline. Future R&D projects include the development of drought-resistant seed coatings to combat abiotic stress and a collaborative project to grow potatoes from pelleted seeds, rather the tubers, to reduce their susceptibility to disease.

Building on its success in 2021, Health Care delivered sales growth across all of its platforms other than lipid systems, progressing its vision to become a global leader in biological drug delivery. The strategy is to identify and acquire new technology platforms, then grow them organically through organic investment. The Patient Health platform develops and supplies high purity delivery systems for pharmaceutical formulations, including vaccine adjuvants, speciality excipients for protein delivery and lipid systems for nucleic acid applications. This is supplemented by a vibrant Consumer and Animal Health business. Our first Patient Health platform, speciality excipients, has been established for over 10 years. Growth is being driven by demand for high-value delivery systems to enable the latest biologic drug therapeutics, with a strong pipeline of new opportunities for monoclonal antibody delivery. A recent doubling in manufacturing capacity at the US facility has unlocked further growth. In addition, following its acquisition in 2018, investment in rapid expansion of vaccine adjuvants is also driving strong growth. Adjuvant demand is being driven by new vaccines, greater adjuvant use to enhance the body's reaction to vaccine protection and WHO programmes to expand vaccine take up in developing countries, together with

industry interest in sourcing from independent manufacturers, such as Croda. Vaccines are also increasingly being used to trigger an immune response to an already contracted disease, such as HIV, with 1,500 clinical trials of therapeutic vaccines underway globally.

Croda entered its third Patient Health platform, lipid systems, through its 2020 US acquisition of Avanti Polar Lipids. Alongside this additional technology platform, Avanti strengthened Croda's access to clinical stage drug and vaccine development through Avanti's service to 3,000 pharmaceutical R&D customers. Avanti combined a well established R&D business model with access to the novel area of nucleic acid delivery. Lipid systems offer significant potential as the delivery system for a wide range of nucleic acid applications, including novel mRNA-based therapeutics, such as flu vaccines and cancer treatments. Given the scale of the current clinical development pipeline, the market for lipid systems is expected to grow significantly over the next ten years.

2020 saw the fast-track approval of COVID-19 vaccines using the new mRNA technology. Croda was the first company to supply clinical and commercial quantities of critical lipid systems to support the roll-out of COVID vaccines globally. COVID sales from lipid systems peaked in 2021 at US\$190m and are currently expected to decline steadily through to 2024, with a regular demand thereafter. Progressively offsetting this will be an encouraging pipeline of R&D projects using lipids for non-COVID applications, based on the Avanti lipid R&D business.

First half total sales of lipid systems were US\$90m, with full year sales expected to be around US\$150m (2021: US\$230m). We expect total lipid sales to be around US\$120m in 2023 and 2024, returning to growth from 2025 as clinical opportunities in mRNA and nucleic acids develop and convert into commercial scale projects, leveraging Croda's wider scale-up capability, driving medium term expansion in line with the Avanti acquisition plan.

Our Health Care business has had outstanding early success with its involvement in COVID vaccines, but, more importantly, we have built a foundation for Croda in biological drug delivery. In the first half, we secured 30 new customers and 80 new clinical and pre-clinical programmes, bringing the total to 330. More than three quarters of these programmes are for non-COVID applications, up from two thirds just six months ago. In lipid systems, all of the new programmes were for non-COVID applications, bringing the pipeline to over 50, including supporting a customer which recently completed the world's first ever dosing of a patient with a gene editing therapy, as part of a phase one clinical trial for the treatment heart disease.

We are investing £160m over the period 2021 to 2024 to broaden our footprint and capabilities in lipid systems and drug delivery. This capital investment includes the expansion of the Avanti site in Alabama, USA into a full cGMP R&D facility, the expansion of Croda's UK lipid scale-up facility and establishing a second scale up plant in Pennsylvania, USA, as part of a new multi-purpose cGMP Health Care facility. The latter two sites have secured up to £75m of funding from the UK and US governments respectively, as part of their pandemic preparedness plans.

Performance Technologies and Industrial Chemicals (PTIC)

Following the recovery of demand in Performance Technologies during 2021, sales grew 23% in the first half of 2022. This reflected a 32% increase in price/mix, reflecting successful recovery of significant inflation across most raw materials. Volume declined by 11%, reflecting strong demand in the prior year comparator, when customers increased supply chain inventories to meet the rapid recovery in consumer demand, and with the higher prices leading to some customer reformulation in lower value products. Currency translation added 2%.

Across the two principal businesses, Energy Technologies performed well as post-pandemic demand returned, particularly in the automotive market. Smart Materials also built on a strong performance in 2021, to deliver further growth across packaging, circular plastics and other polymer applications.

Sales in the first half were £274.4m (2021: £223.7m) with NPP 17% (2021: 18%) of total sector sales. Adjusted operating profit increased by 44% to £50.2m (2021: £34.8m) and IFRS profit was £49.2m (2021: £31.3m). Return on sales improved to 18.3% (2021: 15.6%), reflecting the benefit of operating leverage.

Industrial Chemicals benefitted from stronger commodity prices, with sales up 29%, driven by a 35% increase in price/mix. Adjusted operating profit was £10.3m (2021: £2.7m) and return on sales improved on the better pricing and operating leverage to 15.1% (2021: 5.1%). IFRS operating profit was £10.3m (2021: £2.7m)

Following the divestment, Croda's retained industrial business will form a new Industrial Specialties sector. This will play a critical role in Croda's integrated model, supporting the efficiency of the Consumer Care and Life Sciences sectors. In addition to supplying ingredients for water treatment, fibres and fabrics, emulsion technologies, low emission coatings, display technologies and electronics, it will also generate revenue from new long-term supply agreements with the acquirer.

Other matters

Principal risks

The principal risks and uncertainties facing the Group were set out on pages 50 to 55 of the Group's financial statements for the year ended 31 December 2021. There have been no changes in the Group's principal risks and uncertainties, risk management processes or policies since the year end. The Group's principal risks as reported in the financial statements for the year ended 31 December 2021 were 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. Within revenue generation risk, significant inflation has continued which we have successfully recovered. After a period of strong market growth, there are some signs of macro-economic slowdown amid a consumer cost of living squeeze. Our powerful business model has allowed us to continue to manage this risk effectively.

Related party transactions during the period are set out in note 10.

Statement of Directors' Responsibilities

The Directors confirm that this condensed interim financial information has been prepared in accordance with IAS 34 as adopted for use in the UK and that the interim management report includes a fair review of the information required by DTR 4.2.7 and DTR 4.2.8, namely:

- an indication of important events that have occurred during the first six months and their impact on the condensed set of financial statements, and a description of the principal risks and uncertainties for the remaining six months of the financial year; and
- material related party transactions in the first six months and any material changes in the related party transactions
 described in the last Annual Report.

The Directors of Croda International Plc at 30 June 2022 were as follows (a list of current Directors is maintained on the Croda website: <u>www.croda.com</u>):

Anita Frew (Chair) Steve Foots (Group Chief Executive) Roberto Cirillo Jacqui Ferguson Dr Helena Ganczakowski Professor Keith Layden Jez Maiden John Ramsay Julie Kim Nawal Ouzren

By order of the Board

Steve Foots Group Chief Executive Jez Maiden Group Finance Director

Independent Review Report to Croda International Plc

Conclusion

We have been engaged by the company to review the condensed set of financial statements in the half-yearly financial report for the six months ended 30 June 2022 which comprises the Group condensed interim balance sheet, Group condensed interim statement of changes in equity, Group condensed interim statement of cash flows and the related explanatory notes. Based on our review, nothing has come to our attention that causes us to believe that the condensed set of financial statements in the half-yearly financial report for the six months ended 30 June 2022 is not prepared, in all material respects, in accordance with IAS 34 Interim Financial Reporting as adopted for use in the UK and the Disclosure Guidance and Transparency Rules ("the DTR") of the UK's Financial Conduct Authority ("the UK FCA").

Basis for conclusion

We conducted our review in accordance with International Standard on Review Engagements (UK) 2410 Review of Interim Financial Information Performed by the Independent Auditor of the Entity ("ISRE (UK) 2410") issued for use in the UK. A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. We read the other information contained in the half-yearly financial report and consider whether it contains any apparent misstatements or material inconsistencies with the information in the condensed set of financial statements. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusions relating to going concern

Based on our review procedures, which are less extensive than those performed in an audit as described in the Basis of conclusion section of this report, nothing has come to our attention that causes us to believe that the directors have inappropriately adopted the going concern basis of accounting, or that the directors have identified material uncertainties relating to going concern that have not been appropriately disclosed. This conclusion is based on the review procedures performed in accordance with ISRE (UK) 2410. However, future events or conditions may cause the group to cease to continue as a going concern, and the above conclusions are not a guarantee that the group will continue in operation.

Directors' responsibilities

The half-yearly financial report is the responsibility of, and has been approved by, the directors. The directors are responsible for preparing the half-yearly financial report in accordance with the DTR of the UK FCA. As disclosed in note 1, the annual financial statements of the group are prepared in accordance with UK-adopted international accounting standards. The directors are responsible for preparing the condensed set of financial statements included in the half-yearly financial report in accordance with IAS 34 as adopted for use in the UK. In preparing the condensed set of financial statements, the directors are responsible for assessing the group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or to cease operations, or have no realistic alternative but to do so.

Our responsibility

Our responsibility is to express to the company a conclusion on the condensed set of financial statements in the half-yearly financial report based on our review. Our conclusion, including our conclusions relating to going concern, are based on procedures that are less extensive than audit procedures, as described in the Basis for conclusion section of this report.

The purpose of our review and to whom we owe our responsibilities

This report is made solely to the company in accordance with the terms of our engagement to assist the company in meeting the requirements of the DTR of the UK FCA. Our review has been undertaken so that we might state to the company those matters we are required to state to it in this report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company for our review work, for this report, or for the conclusions we have reached.

lan Griffiths for and on behalf of KPMG LLP *Chartered Accountants* 15 Canada Square London E14 5GL

28 July 2022

Croda International PIc Interim announcement of trading results for the six months ended 30 June 2022 Group Condensed Interim Income Statement

154.9

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Diluted

Interim

Final

Ordinary dividends paid in the period

	First half 2022			First half 2021			Full year 2021		
Note	Adjusted £m	Adjustments £m	Reported Total £m	Adjusted £m	Adjustments £m	Reported Total £m	Adjusted £m	Adjustments £m	Reported Total £m
Revenue 2	1,127.3	_	1,127.3	934.0	_	934.0	1,889.6	_	1,889.6
Cost of sales	(591.3)	_	(591.3)	(463.5)	-	(463.5)	(950.7)	_	(950.7)
Gross profit	536.0	_	536.0	470.5	-	470.5	938.9	_	938.9
Operating costs	(235.6)	(11.8)	(247.4)	(228.4)	(23.6)	(252.0)	(470.3)	(30.4)	(500.7)
Operating profit 2	300.4	(11.8)	288.6	242.1	(23.6)	218.5	468.6	(30.4)	438.2
Gain on business disposal 11	_	360.6	360.6	-	-	-	-	_	
Financial costs 3	(12.4)	(1.1)	(13.5)	(12.9)	(1.8)	(14.7)	(24.9)	(3.3)	(28.2)
Financial income 3	0.8	-	0.8	0.3	-	0.3	1.5	-	1.5
Profit before tax	288.8	347.7	636.5	229.5	(25.4)	204.1	445.2	(33.7)	411.5
Тах	(69.4)	(20.7)	(90.1)	(56.0)	6.0	(50.0)	(94.4)	5.7	(88.7)
Profit after tax for the period	219.4	327.0	546.4	173.5	(19.4)	154.1	350.8	(28.0)	322.8
Attributable to:									
Non-controlling interests	2.9	_	2.9	0.7	_	0.7	2.0	_	2.0
Owners of the parent	216.5	327.0	543.5	172.8	(19.4)	153.4	348.8	(28.0)	320.8
· · · · · ·	219.4	327.0	546.4	173.5	(19.4)	154.1	350.8	(28.0)	322.8
Adjustments relate to exceptional items, amortisation of intangible assets arising on acquisition and the tax	thereon. Details are c	lisclosed in note 2.						· · ·	
	Pence		Pence Reported	Pence		Pence Reported	Pence		Pence Reported
	Adjusted		Total	Adjusted		Total	Adjusted		Total
Earnings per 10.61p ordinary share									
Basic	155.2		389.6	124.0		110.0	250.0		230.0

388.8

_

56.5

123.7

229.5

43.5

51.5

249.5

109.8

_

51.5

Group Condensed Interim Statement of Comprehensive Income

	2022 First half £m	2021 First half £m	2021 Full year £m
Profit after tax for the period	546.4	154.1	322.8
Other comprehensive income/(expense):			
Items that will not be reclassified subsequently to profit or loss:		10 5	40.0
Remeasurements of post-retirement benefit obligations	99.3	40.5	40.6
Tax on items that will not be reclassified	(24.9)	(8.7)	(8.3)
	74.4	31.8	32.3
Items that have been or may be reclassified subsequently to profit or loss:			
Currency translation	87.8	(48.5)	(61.1)
Reclassification of currency translation	(14.8)	-	-
Cash flow hedging	2.8	-	3.7
Reclassification of cash flow hedging	(6.5)	-	-
Cost of hedging reserve	-	-	(6.0)
Reclassification of cost of hedging reserve	6.0	_	-
Tax on items that may be reclassified	(0.4)	_	0.4
	74.9	(48.5)	(63.0)
Other comprehensive income/(expense) for the period	149.3	(16.7)	(30.7)
Total comprehensive income for the period	695.7	137.4	292.1
Attributable to:			
Non-controlling interests	3.5	0.6	2.1
Owners of the parent	692.2	136.8	290.0
	695.7	137.4	292.1
Arising from:			
Continuing operations	695.7	137.4	292.1

Group Condensed Interim Balance Sheet

	At 30 June	At 31 December
Note	2022 £m	2021 £m
Assets	2111	2.11
Non-current assets		
Intangible assets 5	1,272.6	1,271.6
Property, plant and equipment 6	916.4	988.1
Right of use assets	88.7	87.9
Investments	3.3	3.3
Deferred tax assets	11.9	13.5
Retirement benefit assets 8	131.5	35.3
	2,424.4	2,399.7
Current assets		
Inventories	434.8	443.0
Trade and other receivables	472.6	337.9
Cash and cash equivalents	786.4	112.8
	1,693.8	893.7
Liabilities		
Current liabilities	(·)	(
Trade and other payables	(358.4)	(358.0)
Borrowings and other financial liabilities	(114.2)	(50.9)
Lease liabilities	(12.3)	(12.2)
Provisions	(5.3)	(5.5)
Current tax liabilities	(70.2)	(33.3)
Net current assets	(560.4)	(459.9)
Non-current liabilities	1,133.4	433.8
	(012.2)	(704.6)
Borrowings and other financial liabilities Lease liabilities	(912.2) (79.0)	(794.6) (78.3)
Other payables	(79.0) (3.6)	(12.3)
Retirement benefit liabilities 8	(23.4)	(12.3)
Provisions	(23.4)	(3.6)
Deferred tax liabilities	(162.8)	(151.4)
	(1,184.6)	(1,067.6)
Net assets	2,373.2	1,765.9
	2,0: 012	.,
Equity attributable to owners of the parent	2,358.6	1,753.1
Non-controlling interests in equity	14.6	12.8
Total equity	2,373.2	1,765.9

Group Condensed Interim Statement of Changes in Equity

	Note	Share capital £m	Share premium account £m	Other reserves £m	Retained earnings £m	Non- controlling interests £m	Total equity £m
At 1 January 2021		16.2	707.7	19.3	842.6	9.3	1,595.1
Profit after tax for the period		-	_	_	153.4	0.7	154.1
Other comprehensive (expense)/income		-	-	(48.4)	31.8	(0.1)	(16.7)
Total comprehensive (expense)/income for the period		-	-	(48.4)	185.2	0.6	137.4
Transactions with owners:							
Dividends on equity shares	4	-	_	_	(71.8)	_	(71.8)
Share-based payments		-	-	-	7.0	-	7.0
Transactions in own shares		—	_	_	(4.8)	_	(4.8)
Total transactions with owners		-	-	-	(69.6)	-	(69.6)
Acquisition of a subsidiary with NCI		-	_	_	_	1.6	1.6
Total equity at 30 June 2021		16.2	707.7	(29.1)	958.2	11.5	1,664.5
At 1 January 2022		16.2	707.7	(43.8)	1,073.0	12.8	1,765.9
Profit after tax for the period		_	_	_	543.5	2.9	546.4
Other comprehensive income		-	-	74.3	74.4	0.6	149.3
Total comprehensive income for the period		-	—	74.3	617.9	3.5	695.7
Transactions with owners:							
Dividends on equity shares	4	-	_	_	(78.8)	-	(78.8)
Share-based payments		-	-	-	3.5	-	3.5
Transactions in own shares		_	_	-	(10.6)	_	(10.6)
Total transactions with owners		-	-	-	(85.9)	-	(85.9)
Changes in ownership interests:							
Acquisition of an NCI		_	_	_	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 30 June 2022		15.1	707.7	30.5	1,605.3	14.6	2,373.2

Other reserves include the Capital Redemption Reserve of £0.9m (30 June 2021: £0.9m) and the Translation Reserve of £29.6m (30 June 2021: £(30.0)m). During the period, the Group's preference share capital has been reclassified from equity to borrowings and other financial liabilities.

Group Condensed Interim Statement of Cash Flows

		2022 First half	2021 First half	2021 Full year
	Note	£m	£m	£m
Cash generated by operations				
Operating profit		288.6	218.5	438.2
Adjustments for:				
Depreciation and amortisation		60.8	55.0	113.3
Fair value movement on contingent consideration		(5.5)	3.1	(6.2)
Impairments		-	_	1.1
(Profit)/Loss on disposal and write-offs of intangible assets and property, plant and equipment		(0.1)	0.1	5.8
Net provisions charged		-	0.4	1.6
Share-based payments		(10.4)	13.8	29.1
Non-cash pension expense		5.0	6.1	-
Share of loss of associate		-	1.8	0.7
Cash paid against operating provisions		(0.5)	(1.5)	(2.1)
Movement in inventories		(67.6)	(58.7)	(140.9)
Movement in receivables		(140.3)	(76.5)	(53.2)
Movement in payables		24.1	36.8	91.6
Cash generated by operations		154.1	198.9	479.0
Interest paid		(11.5)	(8.3)	(19.8)
Tax paid		(62.7)	(48.9)	(111.5)
Net cash generated from operating activities		79.9	141.7	347.7
Cash flows from investing activities				
Acquisition of subsidiaries, net of cash acquired		-	(55.5)	(48.9)
Payment of contingent consideration		(12.8)	-	(9.2)
Purchase of property, plant and equipment		(60.9)	(78.7)	(153.0)
Purchase of other intangible assets		(2.8)	(3.1)	(5.7)
Proceeds from sale of property, plant and equipment		1.9	0.2	0.2
Proceeds from business disposal, net of cash in disposed business	11	613.4	-	-
Cash paid against non-operating provisions		(0.5)	(0.7)	(1.1)
Interest received		0.8	0.3	1.5
Net cash generated from investing activities		539.1	(137.5)	(216.2)
Cash flows from financing activities				
New borrowings		207.4	194.4	320.2
Repayment of borrowings		(53.1)	(116.9)	(282.6)
Payment of lease liabilities		(8.8)	(6.8)	(14.4)
Acquisition of non-controlling interest		(1.4)	_	(0.7)
Net transactions in own shares		(10.6)	(4.8)	(2.4)
Dividends paid to equity shareholders	4	(78.8)	(71.8)	(132.5)
Dividends paid to non-controlling interests			_	(0.2)
Net cash generated from financing activities		54.7	(5.9)	(112.6)
		070 7		10.0
Net movement in cash and cash equivalents		673.7	(1.7)	18.9
Cash and cash equivalents brought forward		94.3	77.8	77.8
Exchange differences		6.2	4.4	(2.4)
Cash and cash equivalents carried forward		774.2	80.5	94.3
Cash and cash equivalents carried forward comprise:		700 4	464.6	440.0
Cash at bank and in hand		786.4	104.8	112.8
Bank overdrafts		(12.2)	(24.3)	(18.5)
		774.2	80.5	94.3

A reconciliation of the cash flows above to the movements in net debt is shown in note 7.

Notes to the Interim Financial Statements

1. a. General information

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. This consolidated interim report was approved for issue on 28 July 2022. The financial information included in this interim financial report for the six months ended 30 June 2022 does not constitute statutory accounts as defined in section 434 of the Companies Act 2006 and is unaudited. The comparative information for the six months ended 30 June 2021 is also unaudited. The comparative figures for the year ended 31 December 2021 have been extracted from the Group's financial statements, as filed with the Registrar of Companies, on which the auditors gave an unqualified opinion, did not contain an emphasis of matter paragraph and did not make a statement under section 498 of the Companies Act 2006. These Group condensed interim financial statements have been reviewed, not audited.

b. Basis of preparation

This consolidated interim financial report for the six months ended 30 June 2022 has been prepared in accordance with IAS 34 *Interim Financial Reporting* as adopted for use in the UK.

Tax charged within the six months ended 30 June 2022 has been calculated by applying the effective rate of tax which is expected to apply, on a jurisdiction by jurisdiction basis, to the Group for the period ending 31 December 2022 using rates substantively enacted by 30 June 2022 as required by IAS 34 'Interim Financial Reporting'.

The annual financial statements of the Group for the year ended 31 December 2022 will be prepared in accordance with UK-adopted international accounting standards. As required by the Disclosure Guidance and Transparency Rules of the Financial Conduct Authority, the condensed set of financial statements has been prepared applying the accounting policies and presentation that were applied in the preparation of the company's published consolidated financial statements for the year ended 31 December 2021, which were prepared in accordance with the requirements of the Companies Act 2006 ("Adopted IFRSs") and prepared in accordance with international financial reporting standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union.

Going concern basis

The condensed consolidated financial statements have been prepared on a going concern basis which the Directors believe to be appropriate for the following reasons:

At 30 June 2022 the Group had £1,338m of committed debt facilities available from its banking group, USPP bondholders and lease providers, with principal maturities between 2023 and 2030, of which £263.4m (30 June 2021: £305.5m) was undrawn, together with cash balances of £786.4m (30 June 2021: £104.8m) as a result of the PTIC divestment.

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

A reverse stress testing scenario has been performed which assesses that adjusted operating profit would need to fall by over 90% to trigger an event of default, before consideration of available actions to conserve cash. The Directors do not consider this a plausible scenario. The Directors are therefore satisfied that the Group has sufficient resources to continue in operation for a period of not less than 12 months from the date of approval of the condensed consolidated financial statements. Accordingly, the condensed consolidated financial statements have been prepared on a going concern basis.

c. Accounting policies

The accounting policies applied in these interim financial statements are the same as those applied in the Group's financial statements for the year ended 31 December 2021.

2. Segmental information

The Group's sales, marketing and research activities are organised into four global market sectors, being Consumer Care, Life Sciences, Performance Technologies and Industrial Chemicals. These are the segments for which summary management information is presented to the Group's Executive Committee, which is deemed to be the Group's Chief Operating Decision Maker. Following the completion of the divestment, Croda's retained business within PTIC will form a new Industrial Specialties sector, and summary management information will be updated to reflect the new organisational structure of three global market sectors being Consumer Care, Life Sciences and Industrial Specialties.

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. There are no significant seasonal variations which impact the split of revenue between the first and second half of the financial year.

Adjustments

	2022 First half £m	2021 First half £m	2021 Full year £m
Exceptional items – operating profit			
Business acquisition and disposal costs	_	(3.7)	(13.5)
Pension curtailment gain	-	_	11.2
Fair value movement on contingent consideration	5.5	(3.1)	6.2
Exceptional items – financial costs			
Unwind of discount on contingent consideration	(1.1)	(1.8)	(3.3)
Gain on business disposal	360.6	_	_
Exceptional items	365.0	(8.6)	0.6
Amortisation of intangible assets arising on acquisition	(17.3)	(16.8)	(34.3)
Total adjustments	347.7	(25.4)	(33.7)

The exceptional items in the current year reflect the gain on the PTIC divestment, associated business disposal costs and discount unwind and fair value adjustment both in respect of contingent consideration. Movements in contingent consideration have been presented as exceptional as they are not directly representative of the underlying business performance in the period, and therefore this presentation provides a meaningful basis to make comparisons between reporting periods. Business divestment profit and disposal costs have been presented as exceptional due to their size and one-off nature. The exceptional items in the prior half year related to discount unwind and fair value adjustment both in respect of contingent consideration, acquisition costs and disposal costs in relation to the PTIC divestment. The adjustments to operating profit relate to our segments as follows: Consumer Care £10.2m (30 June 2021: £11.0m), Life Sciences £0.6m (30 June 2021: £9.1m), Performance Technologies £1.0m (30 June 2021: £3.5m) and Industrial Chemicals £Nil (30 June 2021: £Nil).

	2022 First half £m	2021 First half £m	2021 Full year £m
Income statement			
Revenue			
Consumer Care	454.9	367.0	763.0
Life Sciences	329.7	290.4	572.3
Performance Technologies	274.4	223.7	439.5
Industrial Chemicals	68.3	52.9	114.8
Total Group revenue	1,127.3	934.0	1,889.6
Adjusted operating profit Consumer Care	121.1	00.4	100 E
Life Sciences	121.1	90.4 114.2	188.5 208.5
Performance Technologies Industrial Chemicals	50.2 10.3	34.8 2.7	208.5 64.5 7.1
Total Group operating profit (before exceptional items and amortisation of intangible assets	10.0	2.1	7.1
arising on acquisition)	300.4	242.1	468.6
Exceptional items and amortisation of intangible assets arising on acquisition	(11.8)	(23.6)	(30.4)
Total Group operating profit	288.6	218.5	438.2

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 £m	North America £m	Latin America £m	Asia £m	Reported Total £m
Revenue					
First half 2022					
Consumer Care	182.4	123.1	43.8	105.6	454.9
Life Sciences	137.5	93.4	41.7	57.1	329.7
Performance Technologies	133.0	62.1	13.0	66.3	274.4
Industrial Chemicals	29.7	7.6	1.4	29.6	68.3
Total Group revenue	482.6	286.2	99.9	258.6	1,127.3
Revenue First half 2021					
Consumer Care	151.4	96.7	33.0	85.9	367.0
Life Sciences	140.3	83.1	28.8	38.2	290.4
Performance Technologies	110.8	50.3	11.2	51.4	223.7
Industrial Chemicals	24.1	5.9	1.1	21.8	52.9
Total Group revenue	426.6	236.0	74.1	197.3	934.0

3. Net financial costs

	2022 First half £m	2021 First half £m	2021 Full year £m
Financial costs			
Bank interest payable	(11.2)	(9.2)	(19.9)
Net interest on retirement benefit liabilities	-	(0.1)	(0.3)
Interest on lease liabilities	(1.2)	(1.1)	(2.2)
Provision against non-operating loan	_	(2.5)	(2.5)
Unwind of discount on contingent consideration (exceptional)	(1.1)	(1.8)	(3.3)
	(13.5)	(14.7)	(28.2)
Financial income			<u>.</u>
Bank interest receivable and similar income	0.6	0.3	1.5
Net interest on retirement benefit liabilities	0.2	_	_
	0.8	0.3	1.5
Net financial costs	(12.7)	(14.4)	(26.7)

4. Dividends

	Pence per share	2022 First half £m	2021 First half £m	2021 Full year £m
Ordinary				
2020 final, paid June 2021	51.5	-	71.8	71.8
2021 interim, paid October 2021	43.5	-	-	60.6
2021 final, paid June 2022	56.5	78.8	-	_
		78.8	71.8	132.4
Preference (paid June and December)		-	0.0	0.1
		78.8	71.8	132.5

An interim dividend in respect of 2022 of 47.0p per share, amounting to a total dividend of £65.6m, was declared by the Directors at their meeting on 21 July 2022. This interim report does not reflect the 2022 interim dividend payable. The dividend will be paid on 4 October 2022 to shareholders registered on 9 September 2022.

5. Intangible assets

	2022	2021	2021
	First half	First half	Full year
	£m	£m	£m
Opening net book amount	1,271.6	1,311.7	1,311.7
Exchange differences	36.7	(39.7)	(54.6)
Additions	2.8	3.1	5.7
Acquisitions	-	48.2	48.4
Disposals, write offs and reclassifications	(19.8)	(0.2)	(2.6)
Amortisation charge for the period	(18.7)	(18.0)	(37.0)
Closing net book amount	1,272.6	1,305.1	1,271.6

6. Property, plant and equipment

	2022 First half £m	2021 First half £m	2021 Full year £m
Opening net book amount	988.1	900.8	900.8
Exchange differences	57.1	(20.3)	(12.4)
Additions	61.0	78.7	153.0
Acquisitions	-	13.0	13.0
Disposals, write offs and reclassifications	(155.0)	(0.8)	(3.2)
Depreciation charge for the period	(34.8)	(30.7)	(63.1)
Closing net book amount	916.4	940.7	988.1

7. Reconciliation to net debt

	2022	2021	2021
	First half £m	First half £m	Full year £m
Net movement in cash and cash equivalents	673.7	(1.7)	18.9
Net movement in borrowings and other financial liabilities	(145.5)	(70.7)	(23.2)
Change in net debt from cash flows	528.2	(72.4)	(4.3)
Loans in acquired business	_	_	(5.7)
Non-cash movement in lease liabilities	(5.2)	(9.5)	(24.1)
Non-cash preference shares reclassification	(1.1)	_	_
Exchange differences	(30.0)	16.1	11.4
	491.9	(65.8)	(22.7)
Net debt brought forward	(823.2)	(800.5)	(800.5)
Net debt carried forward	(331.3)	(866.3)	(823.2)

8. Critical accounting judgements and key sources of estimation uncertainty

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

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

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

Business disposal

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

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

Croda Sipo in which Croda has a 65% shareholding was excluded from the transaction that completed on 30 June 2022. The Group's assessment that Sipo is not available for sale in its present condition is a key judgement in determining that Sipo is not classified as an asset held for sale at 30 June 2022. Croda continues to discuss options for the future of Croda Sipo with its partner, including a sale to Cargill Inc at an agreed price of €140m.

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

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

Post-retirement benefits

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

The majority of the remeasurement gain in the period relates to the Group's UK pension scheme as a result of a significant rise in corporate bond yields increasing the discount rate to 3.7% (2021: 1.8%). The majority of the Group's retirement benefit asset relates to the Group's UK pension scheme. The UK pension scheme is open to future accrual and therefore the surplus is recognised on the basis that this could be recovered through a reduction in future service contributions. During the period the business divestment resulted in a curtailment gain of £3.9m on cessation of defined benefit accrual, primarily within the Group's UK pension scheme, which has been recognised in the Group Income Statement as part of the gain on business disposal.

	2022 First half £m	2021 Full year £m
Opening net retirement benefit surplus/(deficit)	7.9	(32.3)
Current service cost	(10.5)	(25.1)
Net interest cost	0.2	(0.3)
Employer contributions	5.3	13.6
Benefits paid	0.4	0.3
Past service cost – curtailments	3.9	11.2
Remeasurements	99.3	40.6
Acquisitions	-	(0.9)
Disposals	1.8	-
Exchange movement	(0.2)	0.8
Closing net retirement benefit surplus	108.1	7.9
Total market value of assets	1,107.6	1,340.1
Present value of scheme liabilities	(988.5)	(1,318.7)
Net pension plan asset	119.1	21.4
Post-employment medical benefits	(11.0)	(13.5)
Net retirement benefit surplus	108.1	7.9
Analysed in the balance sheet as:		
Retirement benefit assets	131.5	35.3
Retirement benefit liabilities	(23.4)	(27.4)
Net retirement benefit surplus	108.1	7.9

Goodwill impairment

Management are required to undertake an annual test for impairment of indefinite lived assets such as goodwill. At 30 June 2022, management have performed an assessment for potential impairment triggers and no impairment triggers were identified.

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

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

9. 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 risks. 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.

The condensed interim financial statements do not include all financial risk management information and disclosures required in the annual financial statements; they should be read in conjunction with the Group's financial statements for the year ended 31 December 2021. There have been no changes in the Group's risk management processes or policies since the year end.

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 contingent consideration which is discounted using a risk-adjusted discount rate). Where there are no readily available market values to determine fair values, cash flows relating to the various instruments have been discounted at prevailing interest and exchange rates to give an estimate of fair value.

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

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

	Book value First half 2022 £m	Fair value First half 2022 £m	Book value Full year 2021 £m	Fair value Full year 2021 £m
US\$100m 3.75% fixed rate 10 year note	(81.6)	(78.3)	(74.1)	(78.2)
€30m 1.08% fixed rate 7 year note	(25.7)	(25.7)	(25.2)	(25.5)
€70m 1.43% fixed rate 10 year note	(60.1)	(59.1)	(58.7)	(61.5)
£30m 2.54% fixed rate 7 year note	(30.0)	(29.8)	(30.0)	(30.3)
£70m 2.80% fixed rate 10 year note	(70.0)	(68.7)	(70.0)	(71.9)
€50m 1.18% fixed rate 8 year note	(42.9)	(41.2)	(41.9)	(43.5)
£65m 2.46% fixed rate 8 year note	(65.0)	(62.2)	(65.0)	(65.7)
US\$60m 3.70% fixed rate 10 year note	(48.9)	(47.2)	(44.5)	(47.4)

10. Related party transactions

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

11. 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 £650.7m. 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	650.7
Amounts owed to the divested business	(21.6)
	629.1
Assets and liabilities of the divested business	
Intangible assets	20.0
Property, plant & equipment	154.4
Right of use assets	1.1
Inventories	96.5
Trade and other receivables	24.4
Cash and cash equivalents	9.4
Trade and other payables	(35.2)
Lease liabilities	(1.1)
Current tax payable	(1.5)
Retirement benefit liabilities	(1.8)
Deferred tax	(10.7)
Net assets	255.5
Associated transactions and costs	
Pension curtailment gain	3.9
Disposal and separation costs	(31.7)
Reclassification of currency translation	14.8
Gain on business disposal before tax	360.6
Income tax on business disposal	(22.2)
Gain on business disposal after tax	338.4

The cash consideration received includes a £0.6m gain on associated cash flow hedging and a £4.4m deduction for VAT payable.

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

A completion accounts process remains ongoing to finalise the consideration received and net assets transferred which will be completed in the second half-year. This may result in an adjustment to the final reported gain on business disposal.