

Sustainability Impact
Report 2024

SMART SCIENCE

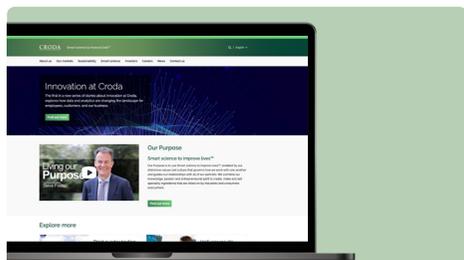


TO IMPROVE LIVES™

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Visit [croda.com/sustainability](https://www.croda.com/sustainability) for updates to our impact work throughout the year

Where we publish on sustainability

	Annual Report	Sustainability Impact Report	Reporting Data Pack	www.croda.com
Sustainability Commitment progress	✓	✓	✓	✓
Non-Financial Sustainability Information Statement	✓			
TCFD	✓			
GRI			✓	
SASB/ISSB review			✓	
Principal Adverse Impact Statement			✓	
Limited Assurance Opinion and Reporting Criteria				✓

2024 reporting parameters

This report covers the sustainability performance of Croda International Plc for the period 1 January 2024 to 31 December 2024. The scope of this report, and data within it, is all operations wholly owned for the full 12-month period, plus those operations where we have significant management influence due to a majority shareholding. As of 31 December 2024, Croda employed 6,027 people across 94 locations in 39 countries.

Re-statements*

We have re-stated results to complete the integration of Iksan site following the acquisition of Solus Biotech mid-2023, impacting our results for GHG emissions, emissions intensity, energy and water. We have also updated values for Land area saved and Carbon emissions avoided through the use of our products, to improve the quality of the assumptions for these metrics and corrected a data gathering error for water withdrawal in 2023. Details are set out on page 21. These updates reflect our commitment to good quality data and meets our policy to recalculate and restate for any changes of 5% or more as set out in the reporting criteria available on www.croda.com/sustainability.

Metrics assured in 2024

- Scope 1 emissions
- Scope 2 emissions (location-based)
- Scope 2 emissions (market-based)
- Scope 3 emissions (upstream)
- Emissions intensity
- Carbon emissions avoided through use of products
- Carbon cover ratio
- Land area saved
- Total energy consumption
- % organic raw materials bio-based
- % leadership roles held by women
- % women in the workforce
- % women on the Board
- % available leadership positions filled by women
- Water withdrawal

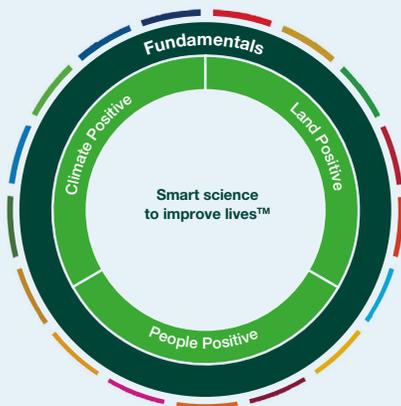
Limited Assurance^Δ

^Δ indicates where metrics have been assured (limited assurance) under ISAE (UK) 3000 and ISAE 3410 by KPMG, our independent assurance provider and reflects the position for the year ending 31 December 2024. The limited assurance opinion and reporting criteria are available on www.croda.com/sustainability



Our impact at a glance

Five years ago, Croda launched our Commitment to be Climate, Land and People Positive by 2030. Halfway through this decade of action, we have already delivered on many of our milestones, and even some 2030 objectives early.



Croda is the name behind some of the world's most successful brands. We use Smart Science to Improve Lives™: creating, making and selling innovative ingredients that are relied on by industries and consumers around the world.

This report provides a balanced view of the progress made, how we have approached the challenges and with whom we have worked.

Progress highlights 2020-2024...

...in our supply chains

- >90% of key suppliers assessed for sustainability progress via EcoVadis and meet our minimum requirements.
- 66% of our key suppliers have made public commitments to decarbonisation, with more than 45% following SBTi methodologies.
- We have obtained and validated supplier-specific GHG emission data covering 23% of our raw materials.
- We are a founder member and have contributed to the Action for Sustainable Derivatives Impact Project, restoring ecosystems in Indonesia and improving socioeconomic outcomes for smallholder farmers.
- We have significantly increased transparency in our complex palm derivative supply chains with 94.3% of our volumes traceable to mill.

...where we operate

- Decarbonising heat for our manufacturing sites, we remain on track with our Scope 1 and 2 Science-Based Target trajectory.
- All Croda employees globally are paid a Living Wage. We are in the final stages of receiving certification from the Fair Wage Network (FWN) for the work we have done to date.
- Zero process waste sent to landfill from our manufacturing sites with >99% of process waste diverted from landfill in 2024¹.
- Our four major manufacturing sites in water-stressed locations have reduced their water use impact by more than 25% since 2018.
- We have completed a peer-led review of process safety risks for our 31 high-hazard processes.

...in our markets

- Our sunscreen actives have protected an estimated total of 278 million people² globally from the potentially damaging effects of UV radiation.
- Our adjuvant technologies are now included in 16 commercial vaccines for four of the most challenging communicative diseases.³
- Croda Agriculture solutions have saved 291,321 hectares of land.²
- Micro-plastic free seed coatings are reducing plastic pollution in the soil across all regions of the world.
- Product-level carbon footprint data, aligned with industry standards, has been made available for more than 2,000 products across all markets.
- All palm-derived ingredients for our Consumer Care customers are now produced using RSPO-certified raw materials.⁴

... across our society

Croda Foundation has invested more than £5m of Croda's profits into projects that have been shown to sustainably improve the lives of more than 22 million people.

1. Aligned with the Carbon Trust definition of 'Zero Waste to Landfill' 2. cumulative data 2020-2024 3. as defined by WHO Vaccine Pipeline in 2019 4. on a mass-balanced (MB) basis

2024 Highlights

Scope 3 upstream emissions (TCO_{2e})

830,763^Δ

2023: 690,722*

Adjusted profit before tax (PBT)

£260.0m

2023: £308.8m

Ordinary full-year dividend

110.0p

2023: 109.0p

Sales

£1,628.1m

2023: £1,694.5m

Lives sustainably improved by Croda Foundation

22.8m

Land area saved (hectares)

163,402^Δ

2023: 183,123*

Scope 1 & 2 emissions (TCO_{2e})

111,831

2023: 104,463*

Total Recordable Injury Rate

0.47

2023: 0.72

Sales growth (constant currency)

(0.8)%

2023: (18.5)%

CEO statement



“One of our core philosophies is to take a leadership position in sustainability and innovation in our chosen markets: we see the biggest opportunities for improving impacts at the intersection of these agendas.”

As I reflect on the last five years since launching our 2030 Commitment, it is clear we and our stakeholders are operating in a very different context today. The world has been experiencing increased geopolitical uncertainty, persistent pressures on personal and corporate incomes, the real-life consequences of the climate crisis, as well as the emergence of AI. We now face different, more systemic challenges, often completely outside our direct control, requiring deeper understanding and thoughtful collaboration to begin to transform, even disrupt, existing ways of working across our markets and supply chains.

We understand more of the interconnectivity of the multiple sustainability crises, from the potential impacts on nature of alternative feedstocks and fuels, to the links between climate change adaptation, poverty and our future consumers. While corporate targets set the tone and our

priorities, we must continue to translate corporate-level information to the product-level, combining data and progress so that our employees, customers and suppliers can make informed choices to maximise impact, minimise risk and create value.

In this environment, excellent execution is leadership. Despite the pandemic and volatile trading conditions, I am pleased to see that Croda has lived its Purpose, Smart science to improve lives™ in delivering against many of our milestones on the journey to becoming Climate, Land and People Positive, even delivering a few 2030 targets well ahead of schedule.

On track with decarbonisation, understanding our nature impacts while benefitting our employees and wider society

Since verifying our Science Based Targets in 2021, we have focused our investments and business decisions on our Scope 1 and 2 GHG emissions. These are a challenge for our industry as many chemical reactions require high heat. We have maintained emission reductions in line with a 1.5°C trajectory by designing decarbonisation into our capital investment decisions and reassessing how we procure energy. We are disconnecting GHG emissions from value growth, and our internal carbon price has helped build the business cases for this work.

Over this period, we also committed significant effort to understanding GHG emissions in our value chain, our Scope 3. These are out of our direct control and we have been “learning as we go” with customers, suppliers and industry collaborations. We are following a similar journey towards understanding our impacts and dependencies on nature, recognising that our most important work needs to be across our value chains.

From a standing start four years ago, Croda Foundation has efficiently invested more than £5m of Croda profits into a range of inspirational and impactful projects. These have already sustainably

improved more than 22m lives around the world, engaging Croda employees and technology to increase impact where possible. We are paying our employees a Living Wage globally and are seeing the benefits of including an increasingly diverse population in decision making at all levels, in particular the result of increasing women in leadership positions. At the heart of this work, we have embraced safety as a value across our entire organisation and are observing good progress in the declining number of injuries at work. Living our purpose and values continues to make Croda a safer, more inclusive and rewarding place to work.

Preparing for a Net Zero, Nature Positive economy: Innovating Sustainably at the heart of Croda's strategy

While maintaining focus on execution, we have also started the work to explore what our technology portfolio could be and where Croda will help customers win in a Net Zero and Nature Positive world. One of our core philosophies is to take a leadership position in sustainability and innovation in our chosen markets: we see the biggest opportunities for improving impacts at the intersection of these agendas. I believe meeting the sustainability challenges of our sector represents a major opportunity for a company like Croda. Over the next strategy cycle we will make clear choices on the impacts we will deliver, connecting them to value creation, and we will focus on stretching but deliverable objectives.

Through our passion for this work, I want to inspire our leaders, attract future leaders to join us, and engage everyone on this journey. It will be our people who will make this happen, so I thank everyone at Croda and our partners for their commitment, hard work and positive approach to delivering against our impact goals, we achieve more together.

Steve Foots
Group CEO

Navigating the Future of Chemicals

The next 25 years will see significant shifts in consumer care, pharmaceuticals, and agriculture – the main markets Croda serves. Driven by the rise of artificial intelligence, the demand for sustainability, and advances in biologics and biotechnology, the speciality chemicals industry will undergo a transformation that will fundamentally alter how we develop, manufacture and supply chemical ingredients. Please look out for our new report, Navigating the Future of Chemicals, due to be released later in 2025 at www.croda.com, for more on our thinking about the industry in 2050.



Safety as a value

The safety of our employees is at the heart of our Fundamental targets, part of our Commitment to be a leader in sustainability. We are aiming for our personal safety performance to be in the top 10% of the global chemical industry by 2030.



Small improvements make a big difference to safety in Thane, India

At our Thane site, cross-functional human performance teams have identified 688 improvements in just 12 months that will enhance personal and process safety as well as more efficient operations. One process improved through this approach is the handling of a hazardous raw material. The material is received in large plastic containers that need immediate cleaning out once emptied. The task was time-consuming, uncomfortable and physically demanding. Recognising these risks, our human performance team discussed and developed a low-cost, effective mechanism to make the work environment safer, that required minimal investment.

This decontamination station was trialed in one plant, where the operators noted significant improvements in workplace safety. The concept was then installed site-wide. *"Previously, contaminated containers were cleaned individually in a difficult location,"* said Anil Jadhav, an experienced operator. *"Now, we have installed a self-contained water flushing system for multiple containers, and configured it to make it easier to use with lower safety risks. This change also helps reduce the time required to clean each container."*



Image: Anil Jadhav, Croda India employee, empowered to make changes to improve safety

Human Performance programme: a global initiative to embed safety as a value

The improvements at Thane are part of our broader Human Performance (HP) programme, which aims to enhance safety, health, and environmental (SHE) leadership across Croda. The programme focuses on understanding people, promoting empathetic engagement, and developing trust. Since its inception in February 2022 with pilot training courses at our Rawcliffe Bridge site in the UK, the programme has gained momentum, with training delivered across all regions and all leadership levels within the Group.

More than 60 champions have been recognised. These champions are tasked with training leaders within their part of the organisation, encouraging and coaching them to drive improvement. By the end of 2024, champions training has been completed in all four regions, ensuring that every operating site across Croda has at least one trained champion. This rapid development and deployment of champions has strengthened the programme, fostering meaningful engagement through the cross-functional, local learning teams approach to drive improvements in our work practices.

Our Human Performance programme continues to evolve, driving positive change and reinforcing our commitment to safety and operational excellence across the organisation.



Image: Croda's Human Performance Programme champions, Asia Pacific region

Materiality

We want to ensure that our sustainability strategy and actions align with the expectations of our stakeholders. In 2024 we conducted our fifth materiality assessment, first completed in 2011. For the first time, we completed a Double Materiality Assessment (DMA), considering Croda's impacts on planet and society, as well as the financial risks and opportunities for Croda associated with the sustainability agenda.

A: Desktop Analysis and Stakeholder Identification:

We developed an initial list of topics, called Impacts, Risks and Opportunities (IROs), which was used as input into stakeholder workshops.

B: Stakeholder Engagement and Impact:

For the first time we completed a Double Materiality Assessment (DMA) supported by EY. We also worked with Bramble, a specialist in stakeholder engagement, to facilitate six live, interactive workshops with regional, internal and external groups of stakeholders.

C: Financial Materiality Assessment:

We ran a financial materiality workshop with Croda business, finance and risk teams. This enabled ranking and scoring of the IROs to create a draft Double Materiality matrix in advance of the Validation Workshop.

D: Validation Workshop:

The Executive Sustainability Committee is responsible for monitoring and approving our material IROs. It met twice in 2024 to review the draft materiality matrix and approve the final version. This process and approval was overseen by the Board Sustainability Oversight Committee.

[Please visit here for more information on double materiality.](#)

Double Materiality Assessment

We followed the methodology laid out by the European Sustainability Reporting Standards (ESRS) to complete our DMA, to ensure we are able to use it as the basis for our compliance with these new corporate ESG disclosure standards. We also wanted to gain as much rich information from the stakeholder engagement as possible and develop better two-way relationships with those stakeholders (customers, employees, local community, suppliers and investors). The output of the assessment is a list of impacts, risks and opportunities (IROs) meeting the materiality threshold and approved by our Executive Committee and Board. The financially material risks identified by the assessment are in the process of being incorporated into our ERM system (see Risk report p29), and all the material outcomes are informing the review and development of our sustainability strategy.

Material IROs

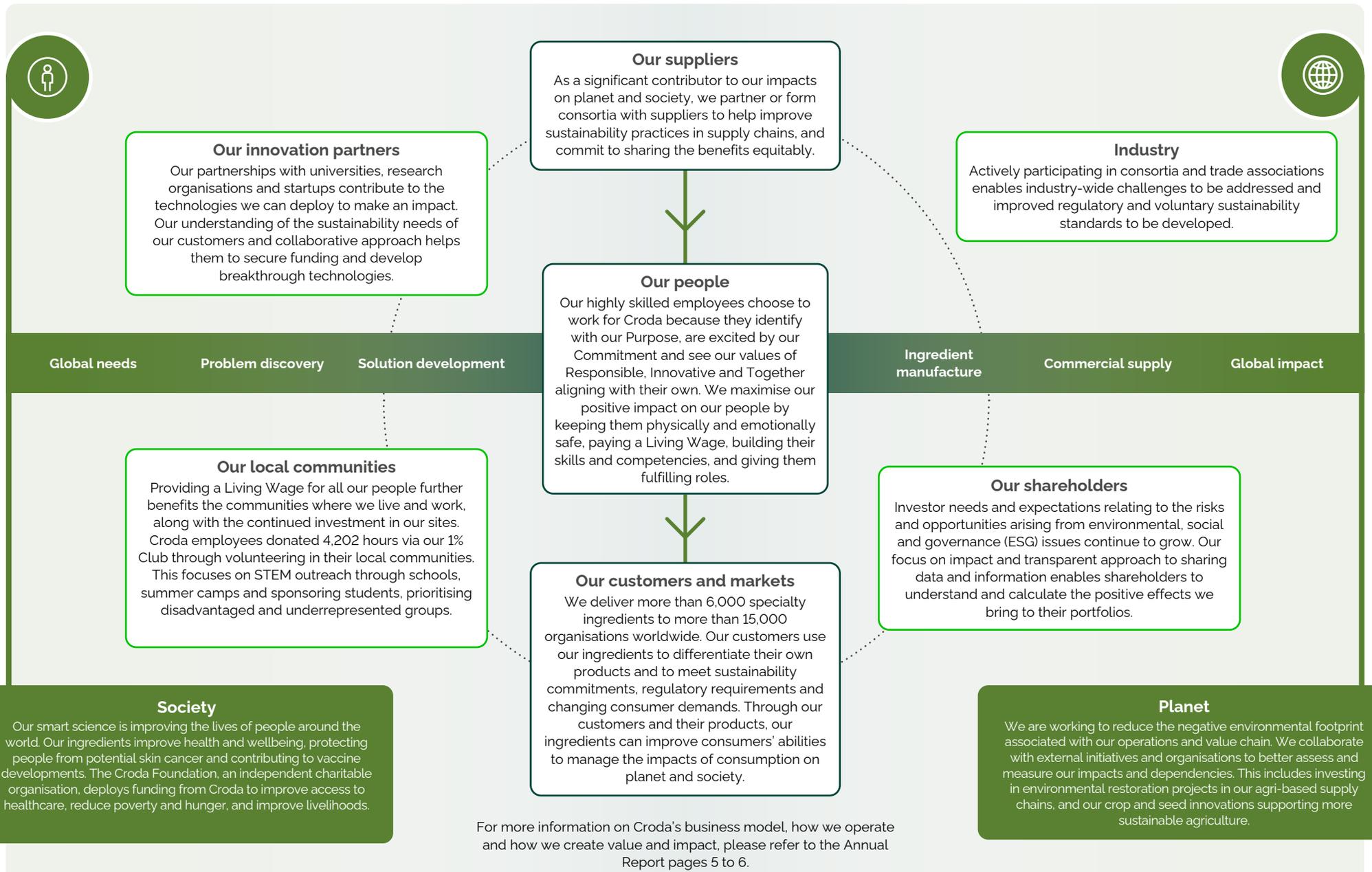
ESRS numbers	Impacts, Risks and Opportunities	Financial materiality	Impact materiality
ESRS E1	Climate change adaptation	●	●
ESRS E1	Climate change mitigation	● ●	●
ESRS E2	Pollution of air	●	●
ESRS E2	Pollution of living organisms and food resources	●	●
ESRS E3	Water	●	●
ESRS E4	Direct impact drivers of biodiversity loss	●	●
ESRS E4	Impacts and dependencies on ecosystem services	●	●
ESRS E5	Resource inflows, including resource use	●	●
ESRS S1	Working conditions – Own workforce	●	●
ESRS S1	Equal treatment and opportunities for all – Own workforce	●	●
ESRS S4	Social inclusion of consumers and end-users	● ●	●
ESRS G1	Corporate culture	●	●
ESRS G1	Responsible procurement practices	●	●

● ● ● Scale of impact ● Financial risk ● Financial opportunity ● Negative impact ● Positive impact

ESRS numbers	Other strategic IROs ¹
ESRS E1	Energy
ESRS E2	Pollution of water
ESRS E2	Pollution of soil
ESRS E2	Microplastics
ESRS E3	Marine resources
ESRS E4	Impact on the extent and conditions of ecosystem services
ESRS E5	Resource outflows related to products and services
ESRS E5	Waste
ESRS S1	Other work related rights – Own workforce
ESRS S2	Working conditions – workers in value chain
ESRS S2	Equal treatment and opportunities for all – Workers in value chain
ESRS S2	Other work related rights – Workers in value chain
ESRS S3	Communities' economic, social, and cultural rights
ESRS S3	Communities' civil and political rights
ESRS S3	Rights of indigenous peoples
ESRS S4	Information related impacts for consumers
ESRS S4	Personal safety of consumers and/or end-users
ESRS G1	Corruption and bribery
ESRS G1	Protection of whistleblowers
ESRS G1	Animal welfare
ESRS G1	Political engagement
ESRS G1	Management of relationships with suppliers, including payment practices

¹ Important to Croda now or in the future, but did not meet the materiality thresholds

How our business model creates impact through our stakeholders



Sustainability Strategy

Our Commitment to be Climate, Land and People Positive by 2030 is ambitious, broad-based and supports restoration, not only reduction. It relies on our businesses living our Purpose, Smart science to improve lives™, embedding sustainability in their strategies and working practices.

Climate Impact

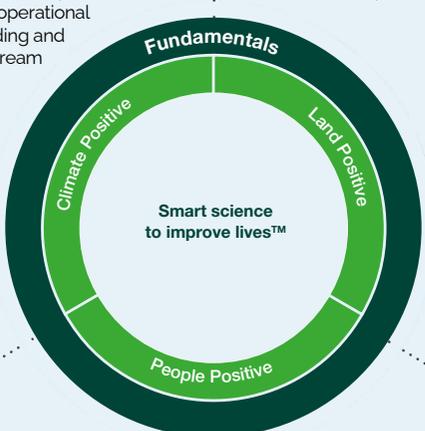


Our investments and actions across Croda are driving GHG emission reductions, in line with our Science-Based Targets (SBTs). As we work towards becoming Climate Positive by 2030, our activities will increasingly focus on key areas such as sustainable sourcing, efficiency improvements to reduce operational emissions and understanding and responding to the downstream impacts of our products.

Nature Impact



Our Commitment to be Land Positive has enabled Croda to develop sector-leading understanding of our impacts on nature. Our long history of using bio-based raw materials means we have a great responsibility to address issues around nature, biodiversity and dependencies on ecosystems.



Social Impact



Our efforts to have a positive effect on employees globally, on workers in our supply chains, on people in the communities where we live and work, and on the most disadvantaged in society. We aspire to be in a position where our impacts on people and society can be measured and reported in the same meaningful ways as with climate and nature.

Where our businesses have an impact on the UN SDGs



Our priority areas for action, building on our partnerships with customers, are:

- **Sustainable Supply Chains:** targeting material upstream Scope 3 reductions while minimising our impacts on nature.
- **Transformational Sustainable Innovation:** creating a product portfolio ready to support our customers as they deliver on their Net Zero and Nature Positive goals.
- **Positive Impacts:** ingredients that help our customers to provide solutions to the world's greatest challenges, from accessible health to regenerative agriculture.

To help deliver this, we make available product-level sustainability data, from traceability of our raw materials through to biodegradability at end of life (see Life Cycle Assessment p11). We continually engage employees and build relevant competencies. In 2024, we piloted our Sustainability Academy to help employees acquire the skills they will need to operate in a rapidly changing context, help Croda deliver our Commitment and further their career development. This will be extended globally in 2025.

Part of our strategy to reduce our negative impacts and increase our positive impacts on climate, nature and society includes our Fundamental targets. These represent the social licence required for a multinational manufacturing company, such as Croda, to operate in 2030. In setting them, we considered all stakeholders in our ecosystem and strive to adopt best practices in environmental protection, labour and human rights, ethics and sustainable procurement. These are now aligned with our climate, nature and society impacts and are reported together.

- Beauty Care
- Seed Enhancement
- Beauty Actives
- Crop Protection
- Home Care
- Pharma
- Fragrances & Flavours

Consumer Care

Consumers' experience of climate change drives their commitment to sustainable products

Consumer demand for sustainable products began with a desire for natural ingredients. This simple approach evolved, incorporating larger environmental and social issues, i.e., support for human and animal rights and deforestation-free products.

Personal experiences drive purchasing behaviours, so it is not surprising that experiences of climate change can be part of our decision-making process. A recent PWC report (2024) found 85% of consumers are making sustainability a priority, attributing this to their own experiences of the disrupting effects of climate change.

From concerns on climate change, the geoskincare trend emerged in 2024, offering sustainable products tailored to the skin's needs due to a changing climate.

"Clean Beauty" products continue to gain market share. Often including natural or naturally-derived synthetic ingredients, these products feature environmentally friendly packaging and information on transparent, ethical supply chains.

Consumer demand for sustainable products continues even in the face of inflationary pressures. Future success will combine performance and price expectations along with sustainability to win the hearts and wallet share of consumers.

Sustainable partnerships: building low-carbon, Nature Positive ingredients of the future

Croda Consumer Care has been a key partner for brands, addressing the sustainable consumer market for decades, demonstrating early leadership in bio-based raw materials and sustainable sourcing practices (e.g., our sustainable palm-based ingredients).

Product-level data transparency enables our customers to make informed ingredient choices for their formulations, delivering consumer performance and sustainability expectations, while supporting their corporate goals. To reduce our climate impact in 2022, we implemented decarbonisation roadmaps at all sites and offer GHG emissions data at the product level.

We collaborate with organisations that are driving high supply chain standards, such as the Union for Ethical BioTrade (at our Beauty Actives Le Perray site in France) and Action for Sustainable Derivatives, to ensure our business is operating responsibly and ethically up our value chain. Partnerships with our suppliers enable opportunities for value chain transformation.

Sustainability plus innovation is key to our growth, with sustainability success criteria a part of our product development cycle, and cooperative customer and industry relationships helping us identify highly sustainable, best-performing new innovation candidates.

Product-level climate data supporting customer decarbonisation efforts

Since 2023, our Product Carbon Footprint (PCF) statements offer GHG emissions information at a product code level for approximately 1,500 Croda Beauty and 600 Home Care ingredients. Supporting our customers in understanding their own Scope 3 upstream emissions, we will continually improve the quality of our data while introducing PCF statements for even more products.

Preventing premature skin ageing while respecting marine biodiversity

Luceane™, a bio-fermentation-based active, boosts cell energy to combat hypoxiaging™ increased by pollution. Respecting marine biodiversity, a unique sampling approach obtained the "wild" starting material, preserving natural resources with full traceability. Luceane acts to reinforce barrier function, reducing premature skin ageing by 5 years in 1 month, immediately decreasing skin fatigue for an oxygenated, smooth radiant skin.

Restorative partnership improving cardamom value chain

Our fragrance division has been working with essential oil producer, NELIXIA, to transform the cardamom value chain in Guatemala in the 'Restore Together' project. Working with 20 farmers (with a goal of 40), we are seeking to educate producers; empowering them to implement agroforestry practices and an improved, more price resilient supply chain. After year one, eight training sessions took place, committing over 25 hectares of land to agroforestry with 1,075 trees planted.

[Visit 1PWC Report 2024](#)

[Visit The geoskincare trend](#)

Life Sciences

Our Life Sciences business drives sustainable outcomes by collaborating with partners and pioneering innovative approaches to enhance our value chain.

Agriculture plays a critical role in helping society transition to a low-carbon, Nature Positive world while ensuring that a growing global population has access to affordable, healthy food. The need for a transformative approach by the sector has been understood for years. It requires disruptive innovations, essential to improve the sustainability of our food production systems and enable a more regenerative approach to agriculture.

Our customers are at the forefront of developing new technologies that will improve yields with reduced environmental and worker health impacts.

In parallel, the pharmaceutical industry has started to take action on its environmental footprint, while striving to enable the availability of lifesaving vaccines and medicines to all. In response to Net Zero targets for national health systems set by over 40 countries (for example UK, Indonesia, Canada and Peru), the industry has aligned on the need for decarbonisation of its products and delivery systems, while recognising its impacts and dependencies on land, water and biodiversity. As most of these impacts are

upstream in the industry's supply chains the role of suppliers, such as Croda, is critical to delivering the required change.

To help our customers deliver these positive outcomes, Croda has invested to make novel, more sustainable technologies available, while also taking action to reduce the environmental footprints of our existing technologies. This is being enabled by sharing high quality product-level sustainability data with our customers.

More specifically in our agricultural markets, we offer targeted solutions, protecting seeds and crops from pests and diseases while increasing their tolerance to environmental stresses.

In our Pharma business commercial opportunities focused on vaccines for diseases affecting the world's most vulnerable populations have been prioritised, with 16 commercial vaccines for four priority diseases (Hepatitis B, Meningitis, Pneumococcal infections and Malaria) containing our technologies. Further partnerships are expanding our ability to offer a comprehensive portfolio of adjuvants for the vaccines of tomorrow including a new partnership with BSI (Botanical Solution Inc), USA to scale innovative adjuvant systems. Looking ahead, Croda is uniquely placed to deliver maximum impact from sustainably sourced and manufactured innovative vaccine adjuvant systems, working in collaboration to enable Open Access for all communities.

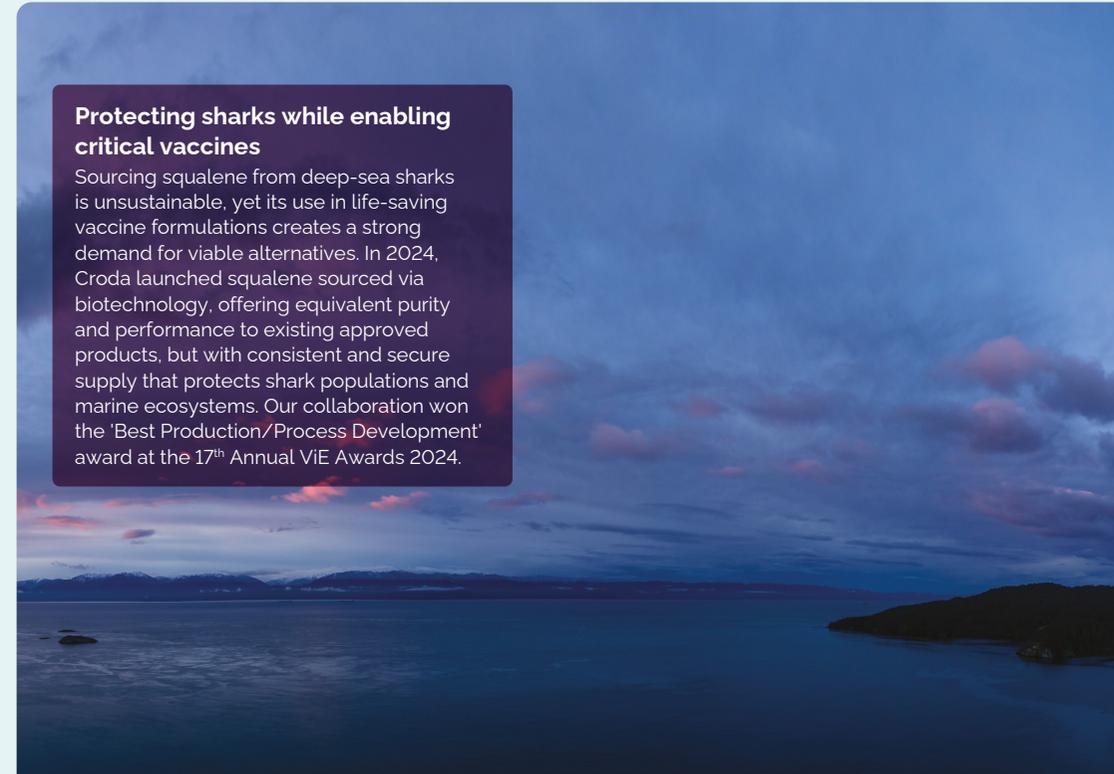
Building regional impact with customers in LATAM

Following a sustainable agriculture event organised by Croda Brazil in 2023 and the launch of product carbon footprint statements, customer engagement on sustainability has increased, identifying actions which support Croda and our customers' sustainability priorities to deliver a positive impact for the region. As a result we have jointly developed a decarbonisation roadmap for a major ingredient, reduced emissions associated with packaging and transport to a local customer, and engaged in multiple joint social equity and inclusion actions.



Protecting sharks while enabling critical vaccines

Sourcing squalene from deep-sea sharks is unsustainable, yet its use in life-saving vaccine formulations creates a strong demand for viable alternatives. In 2024, Croda launched squalene sourced via biotechnology, offering equivalent purity and performance to existing approved products, but with consistent and secure supply that protects shark populations and marine ecosystems. Our collaboration won the 'Best Production/Process Development' award at the 17th Annual VIE Awards 2024.



Impactful innovation and thought leadership driving sustainable change

Croda has helped customers get ahead of the regulations, educating them on the transition to micro-plastic free (MPF) technology and delivering an expanded portfolio of microplastic compliant seed coatings.



First to market...

In 2021, Incotec, Croda's seed enhancement business, pioneered the first innovative MPF film coat offerings for field crops and vegetables. Seed treatment is used in agriculture to improve the yield of vegetable and field crop seeds and to increase their resistance to disease and pests. These new products built readiness ahead of current and anticipated regulatory changes: meeting or exceeding the industry standards while being safe for seed, safe for the environment and safe for those who handle them.

..and a thought leader

Over the past five years, Incotec has played a leading role within the International Seed Federation (ISF) providing expertise and insights towards industry statements¹, webinars and conference panel discussions. To cater to industry needs, Incotec also publicised an industry-facing newsletter on this topic; answering questions, staying abreast of regulation developments and showcasing its market and technical knowledge². More recently, these newsletters have extended to whitepaper publications, setting out recommendations for the seed industry to transition to microplastic-free treatments.³

- [1. The Transition to Microplastic-Free Seed Coatings - Experiences and Lessons Shared by Incotec and Croda | Incotec](#)
- [2. Seed Industry Newsletter on Microplastics | Incotec](#)
- [3. Seed Industry Transition Microplastic Free - Legislation Microplastics Seed Industry | Incotec](#)



Image: Rob Pronk,
Head of Marketing, Incotec



Image: Melon seed with
microplastic-free coating

Taking responsibility for the environmental impacts

There is growing concern all over the world on the topic of microplastics accumulating in the environment and ending up in water and food systems. Agricultural activity accounts for about 10% of the total microplastic release. While seed treatment accounts for only a small part of that, Croda recognised that early adoption and transition to avoid the use of microplastic would enhance the contribution of our industry in reducing the environmental impact of microplastics.

Enabling legislation to be effective

The restriction on intentionally added microplastics to seed was adopted in Europe in autumn 2023, with a total ban on sales coming into effect in 2028 for film coatings. Customers in Europe will be affected first, but a similar course of action will likely be seen elsewhere. Incotec's early engagement in understanding the context and impact of developing regulation and their innovative solutions has ensured the industry is both ready and capable of adopting microplastic technologies. The need for microplastic seed treatments has never been greater.

“The seed industry is committed to effective and harmonised global practices, recognising the urgent need to address microplastics in agriculture. Collaboration and commitment from key industry stakeholders, such as Incotec, continues to be essential to driving (next generation) sustainable solutions”

Michael Keller,
International Seed Federation

Industrial Specialties

Our Industrial Specialties business provides solutions to customers allowing them to reduce energy and water consumption, reduce emissions of VOC's and to provide efficient thermal control to prevent wastage and minimise energy consumption. The business also ensures efficient use of our operations and resource efficiency by managing co-streams.

Our Industrial Specialties business supports a diverse range of industrial markets including coatings, textiles, water treatment and thermal management. For example we provide value adding solutions to reduce energy and water

consumption in textile manufacturing, enable our customers to manufacture high performing, low VOC, durable paints and our biobased, reusable phase change materials enable passive control of temperatures to extend the shelf life and distribution times for a variety of products with minimal energy input.

Many of Croda's manufacturing processes use naturally derived raw materials which generate co-streams after separation of the target ingredients. We contribute to a circular economy by finding value for these materials as feedstocks into new applications.

As Industrial Specialties offers products from Croda's major multipurpose manufacturing sites we also maximise the efficiency of manufacturing, lowering the per unit footprints of all our ingredients.



Reducing pharmaceutical waste during transport

When temperature-controlled pharmaceuticals are transported, specially designed CrodaTherm™ phase change materials are an integral part of containers which maintain the right temperature throughout the supply chain. Our CrodaTherm's are biodegradable and non-hazardous which benefits both the safety of users and the environment.

Recognition

As we strive to improve our impacts, we also receive external recognition from independent sources. This helps to confirm our direction of travel.



Awards



Mello|stem™ awarded Most Significant Skincare Active at the Allē Awards, presented by Cosmetics and Toiletries.



Incotec awarded prize for Most Educational Booth at ASC 2024 in the APSA awards



Vaccine Industry Excellence award for Best Production / Process Development for innovative ingredients



Second place in BBIA Demeter Collaboration Award for partnership with Amyri



Silver award in Sustainable Leadership at the Sustainable Beauty Awards



Ameyezing 4.0™ awarded silver for Best New Sustainable Innovation at the Pure Beauty Awards

Taking a holistic approach to the climate, nature and social crises

Our Commitment to be Climate, Land and People Positive recognises that we must consider the full spectrum of sustainability issues when we compare supply chains, prioritise our innovation efforts, and take significant business decisions.

We have advanced our understanding of the multiple climate, nature and social challenges that comprise sustainability. These range from the potential impacts on nature of alternative fuels or feedstocks, to links between climate change adaptation, poverty, our workforce and consumers. To help our employees, our suppliers and, most importantly, our customers make the right decisions we have prioritised the calculation and sharing of product-level sustainability data. Our new internal Product Information Management system will enable "one source of the truth" product-level information to be collated across our product range, and smarter access to the information for relevant teams. The new system has been successfully piloted and global rollout commences in 2025.

Life Cycle assessment at the heart of our understanding

Working with Ricardo, a global environmental and engineering consultancy, we have developed a bespoke Life Cycle Assessment (LCA) tool that enables us to evaluate the environmental impacts of our products, from raw material source to end of life. To date we have completed full lifecycle assessments of 11 products using this methodology and 50 "cradle-to-gate" LCA, as our customers require this information to include in LCA calculations for their formulations containing Croda ingredients. We are working to scale this output to cover as much of our portfolio as possible in the shortest time, and recognise we need to consider how to include social elements (for example human rights risks, operator safety) in this work in the future.



Image: A smallholder farmer in Tanzania, supported through Croda Foundation's partnership with Treadom.

Using LCA results to collaborate for better outcomes with sunscreen actives

Croda is a market leader in the innovation, production and supply of inorganic sunscreen dispersions used around the world to formulate highly effective, broad-spectrum sunscreens. Our industry-leading Solaveil™ titanium dioxide-based dispersions offer alternative solutions to brands looking to avoid organic UV filters (such as Octocrylene or Oxybenzone) due to their perceived negative environmental impact.

We conducted a cradle-to-grave, full LCA on selected top performers from our industry-leading Solaveil™ dispersions, to understand the environmental impacts of these technologies compared to organic sunscreen actives and gain a broader understanding of the impacts of formulating sunscreens.

Our LCA highlighted several sustainability benefits of our technologies and revealed areas for improvement, while the process of completing the assessment provided further benefits:

- We increased our level of engagement and quality of data-sharing with key suppliers.
- We identified best practices to share across Croda manufacturing sites that are involved in the manufacturing process to minimise negative environmental impacts.
- We worked in partnership with customers to share findings on how identified Solaveil actives, in a given application, can reduce negative environmental impacts downstream of Croda.

Minimising GHG emissions and considering nature impacts in partnership with a local community

Our site in northern France has taken a holistic approach to improving the site's impacts: partnering to maintain low GHG emissions; supporting the local community with low-cost heating; and reducing impacts on nature through investment in water efficiency.



Our Chocques site near Lille is one of the biggest manufacturing sites globally for Croda. It has operated for almost 100 years, producing surfactants and polymers to sell into diverse markets. More recently it has undergone significant investment to enable it to provide technologies for the pharmaceutical industry. The site's collaboration with the local community began many decades ago: water, pre-treated by Croda, is pumped to an incinerator powered by waste from local communities, where it is heated to high-pressure steam and returned to Croda. This steam, required to run our chemical reactions, generates no GHG emissions as we are recovering energy from waste. We may require additional steam from time to time and use our own boilers to generate it, powered currently by natural gas. However, over recent years most of our steam has been provided by recovered energy from waste (see graph).

In addition to heating our reactions, the steam generated by the incinerator is also used by an urban heat network, providing heating and hot water to the local administration and social housing in Bethune, a nearby town. The water formed as this steam cools is treated again on-site by Croda and returned to the local river at equal to or better quality than when we withdrew it.

"We are delighted with this partnership, which contributes, with the help of the Croda Group's industrial reputation, to the area's economic development and which symbolizes our region's plan for a 100% sustainable energy transition."



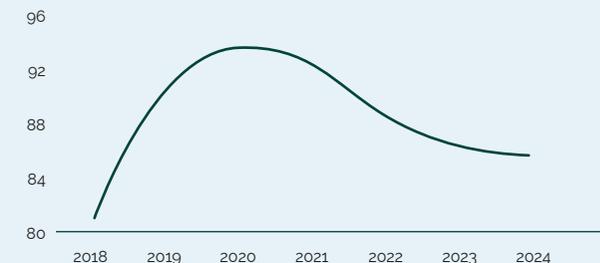
Image: Mr Gilles Hourlier,
Site Director Croda

Image: Olivier Gacquerre,
president of Bethune-Bruay
Artois Lys-Romane municipality

As the incinerator has aged, it has experienced more downtime requiring us to generate more steam ourselves, increasing our GHG emissions. To address this, we have recently signed a memorandum of understanding with the local authority in support of a new incinerator that will more efficiently recover heat. The new equipment will also provide steam at different pressures to Croda, depending on our needs, which will further improve the efficiency of energy use in our manufacturing plants. Construction of the new facility is expected to be finished in 2027.

Recognising that the Chocques site is in a water-stressed region of France, the site has been executing its water roadmap as part of Croda's 2030 objective to halve its water use impact. Following investment in a concentrator the amount of water required to generate the water used for steam generation is expected to fall by 15%, reducing Chocques' overall groundwater demand by 3%. Planned to coincide with the commissioning of the new incinerator, engineering studies were also launched for a "closed water loop" for steam generation and recovery that will significantly reduce the site's water withdrawal.

% of steam demand generated by incinerator



Climate impacts

We remain on track to meet our Science Based Targets (SBTs) aligned with 1.5°C, playing our part in transitioning to a low-carbon global economy. We have reduced our Scope 1 and 2 emissions by 28% since our 2018 baseline.

As we recovered from the challenging business environment of 2023, our output volumes increased, bringing an increase in GHG emissions compared to the previous year (Scope 3 upstream in particular). Please refer to our TCFD report (ARA p37) for more details. This reconfirms the importance of prioritising emission reductions in our supply chain through supplier engagement, raw material innovation, and transitioning to a low-carbon product portfolio.

Deepening supplier engagement

Through continued close collaboration and upskilling of our supply base, we have made great progress in aligning our key suppliers with Croda sustainability commitments. >90% of these suppliers now have EcoVadis scores above our minimum standard of 45. More than 45% of our key suppliers have a public commitment to carbon reduction, including many with SBTs. We have obtained supplier-specific carbon data for 23% of the total volume of materials supplied to Croda, which we will incorporate into the PCF data we provide to customers. As a member of Together for Sustainability (TfS), we have launched the SiGREEN platform to automate collection of carbon data from all suppliers. This data has enabled the global procurement teams to use carbon as a factor in making supplier award decisions.

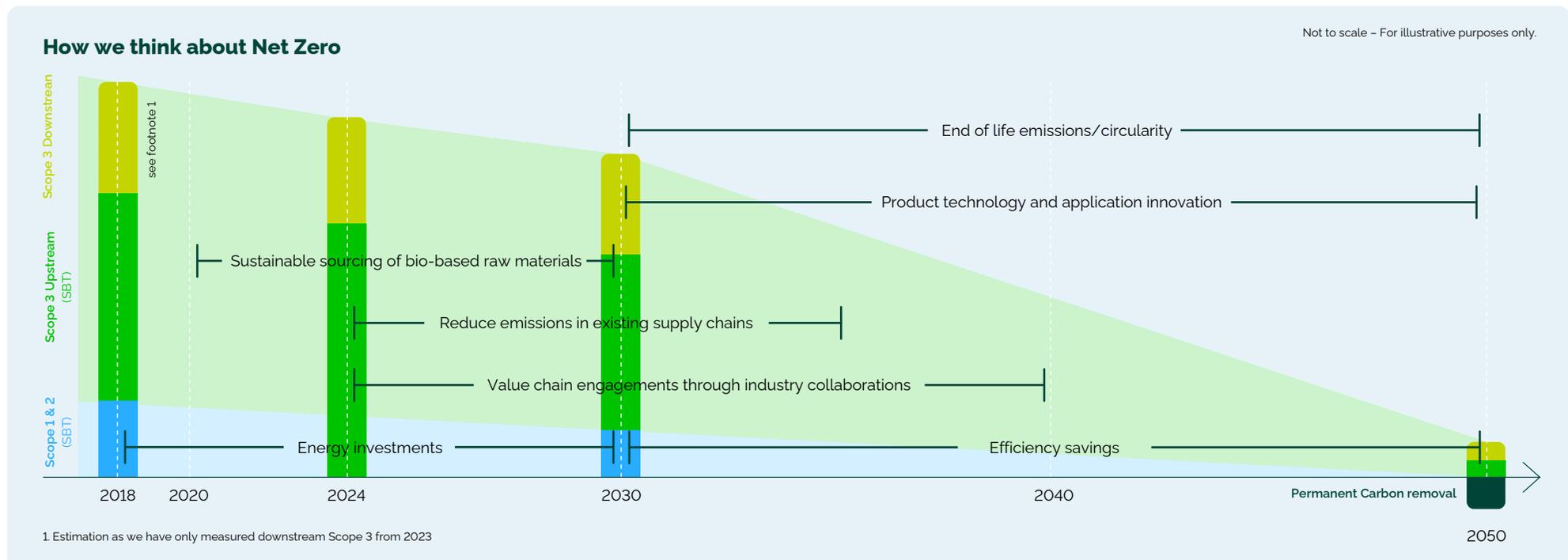
Planning for a net zero economy

We committed in 2024 to building roadmaps to Net Zero for key product groups (accounting for almost half our total Scope 1, 2 and upstream Scope 3 carbon footprint). With the recognition that our markets will be net zero by 2050, cross-functional teams have been exploring how our product portfolio transforms to ensure we continue to deliver the product performance our customers require. While we don't yet have all the answers and will complete further roadmaps during 2025, we do have a better understanding of our levers of change to be ready for a Net Zero and Nature Positive economy (see diagram).

We refined our methodology and assumptions for our downstream Scope 3 inventory to better identify hotspots, prioritising collaboration with customers towards meaningful decarbonisation.

Maturing our thinking beyond primary crop-based feedstocks

Croda is helping the chemical industry and our value chains transform away from chemical feedstocks based on virgin fossil raw materials by offering ingredients that are bio-derived. More than half our carbon-containing raw materials come from bio-based sources, the majority commercial crops. We have missed our original 2024 milestone of more than 70% of our raw materials being bio-derived, primarily because we exited most of our Industrial businesses in 2022 and did not rebaseline the milestone. We are taking the opportunity now to consider the measurable carbon impacts of different non-virgin fossil raw materials, and consider how recycled and waste materials have a significant role to play in our future raw material portfolio.



Nature impacts

Sourcing bio-based raw materials brings a responsibility to address the resulting impacts on nature, biodiversity and ecosystems. We are delivering on many nature-related targets, and working with the WBCSD Nature Preparer's Group to define future science-aligned targets for Croda and other organisations.

Reducing impacts of our bio-based raw material supply chains

We are a founder member of Action for Sustainable Derivatives (ASD), an industry consortium focused on transforming palm derivative supply chains through increasing transparency, monitoring risks, and generating on-the-ground impacts. Working with ASD in 2024, we saw continued high levels of transparency in our palm supply chains with 97.1% of our volumes mapped, of which 95.2% could be traced to refineries, 94.3% to the mills, and 55.5% to plantations. While we continue to use RSPO physically certified Mass Balance as our primary standard for palm-containing products, we are raising this standard through compliance to the EU Deforestation Regulations (EUDR) with a more robust approach to ensuring no deforestation, no human rights abuses and adherence to local laws.

Reducing our impacts in water-stressed regions

We have a particular responsibility to reduce the impacts on nature of our freshwater use at sites in or near water-stressed regions. Six of our manufacturing sites are located in such regions. Of these the top four sites by water withdrawal (in India, Brazil, France and Spain) have achieved our 2024 milestone of a 25% reduction in water use impact from a 2018 baseline. The remaining two, both in Murcia region, Spain, have not achieved this milestone, in part due to the maturity of water management in the Segura basin and resulting water stewardship practices already in place before our baseline year. However, their efforts in recent years have resulted in disconnecting future production volume growth from increased water withdrawal.

Land saved – our first quantified approximation for restoring nature

Our crop technologies and seed treatments help our customers' products improve crop yields, in turn reducing the land area required to grow each tonne of crop. We express this as land area saved and, in 2024, the total land area saved was 163,402 hectares¹, (2023: 183,123 hectares¹), 59,983 hectares above our 2019 baseline. This fell short of our 2024 milestone due to challenging agricultural market conditions in 2024. We were one of the first in our industry to attempt to quantify nature impacts of our technologies in this way. We recognise the need to mature these nature-based targets to become more specific and directly connected to helping contribute to a Nature Positive world.

Breakthrough innovations to lower the negative impacts of agriculture

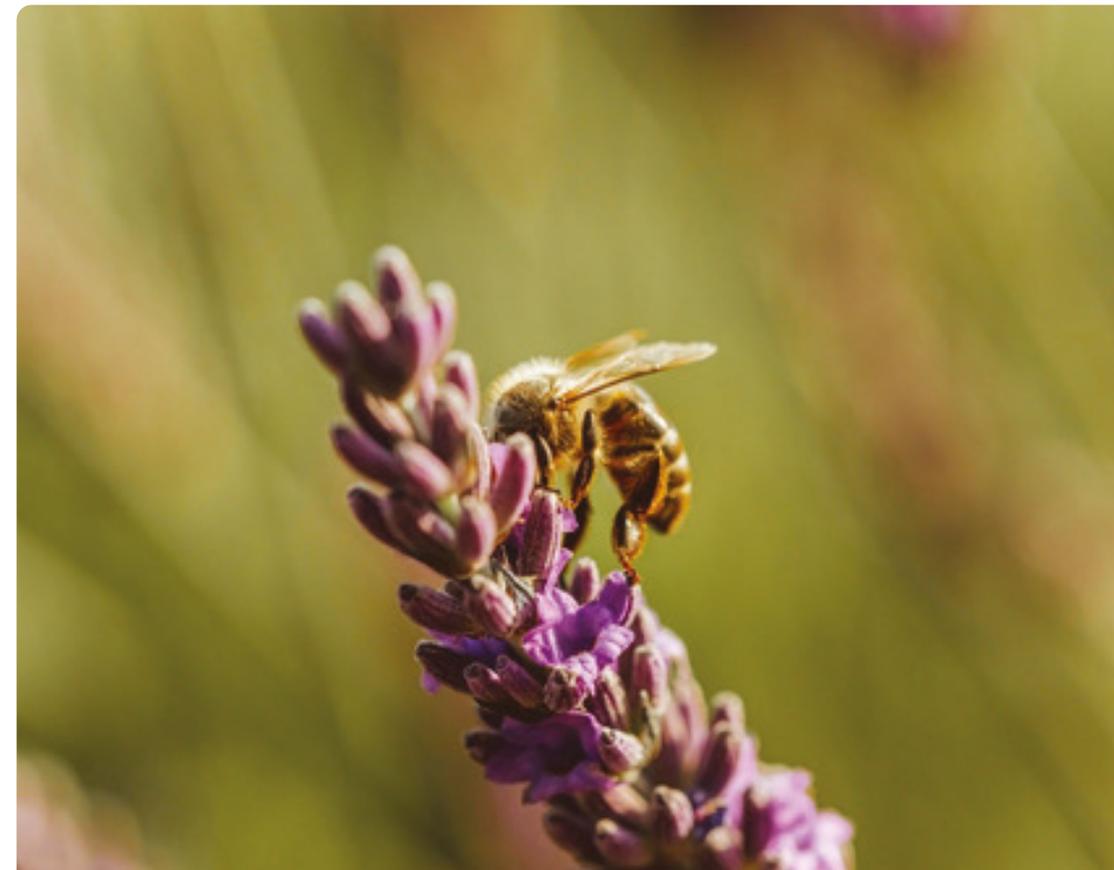
New technology solutions are required to support the agricultural sector become more sustainable; regenerating nature and adapting to the changing climate. We have launched 9 out of the 20

breakthrough innovations targeted by our Agriculture business by 2030. These new technologies will help crops cope better with abiotic stress (non-living stress factors, such as drought, salinity, etc), allow farmers to effectively deploy lower impact biopesticides improve soil health, and support the commercialisation of new crops.

Supporting the launch of Nature Metrics by WBCSD

We participated in the WBCSD cross-sectoral SBTN Preparer Group that published an insights

report¹ to hold all companies accountable for their approach on nature, regardless of maturity. The report recognises that influence and accountability differ along the value chain, so targets need to be adapted accordingly. At Biodiversity COP16, WBCSD announced the launch of the Nature Metrics Portal Initiative to advance the harmonisation of nature-related metrics for companies along a value chain. Our active contribution to this initiative will help us define our future science-aligned targets and support other companies to maximise their contributions towards the global CBD Biodiversity Plan.



1. <https://www.wbcscd.org/resources/accelerating-corporate-ambition-and-preparedness-toward-science-based-targets-for-nature/>

Social impacts

We continue to make progress on our goals to improve the health and wellbeing of our employees, communities and wider society.

Our Commitment to become People Positive by 2030 drives our efforts to continuously improve our impacts on employees globally, on workers in our supply chains and on people in communities connected to Croda and Croda Foundation.

Living safety as a value is reducing injuries

Since 2023 we have refocused our personal safety agenda on leadership's role to engage with, listen to and support staff, enabling safety conversations and improvements across the organisation. We describe this as living safety as a value, not just a priority (see case study p5), enabling 74 of our locations worldwide – 79% of the total – to be totally injury free in 2024.

Our top 500 leaders were again challenged in 2024 to embed these principles through delivery of safety-based objectives. Over 96% were successful in achieving this, contributing to our Total Recordable Injury Rate (TRIR) falling significantly from 0.72 to 0.47 (2022: 0.74). We are on track to meet our 2030 target of being in the top 10% of global chemical companies for safety.

We pay all Croda employees a Living Wage

Since 2021 we have paid our employees a Living Wage¹ in all countries of operation. This ensures working for Croda allows employees a life where decent standards of living are met and they can participate fully in society. We are in the final stages of receiving certification from the Fair Wage Network (FWN) for the work we have done to date.

1. As defined by the Fair Wage Network

2. Defined by the WHO Pipeline Vaccine list 2019

3. Croda Foundation 1st Impact Report 2024

Human rights due diligence in our own operations and supply chains

Our 2023 top-down human rights risk assessment identified the Group's salient human rights risks. To complement this, we will carry out bottom-up risk assessments across our locations. We conducted our first one in Brazil in 2024, running a human rights workshop with the leadership team, identifying risks bespoke to Brazil.

We assessed the likelihood and severity of these risks, carried out listening groups with service provider employees and conducted social audits of our manufacturing sites in Campinas and Holambra.

We have designed a due diligence methodology to help us identify risks in our supply chains. Taking a risk-based approach to the rollout of the methodology (starting with bio-based raw materials/high-risk service provision in line with

our top-down risk assessment and Double Materiality Assessment), we will put controls in place to mitigate risk and look to appropriately remediate any issues found.

Our technologies are helping develop vaccines for the most deadly diseases

In 2020, we set out to commercialise our adjuvant and high-purity excipient technologies in vaccines that addressed at least 25% of the most challenging communicable diseases². These diseases disproportionately impact the poorest communities of the world with the least access to medicines and hospital care so effective vaccination is the solution. We delivered on our milestone in 2022, two years ahead of schedule: to be part of at least 10 phase III clinical trials for these vaccines.

At the end of 2024, we are supplying our adjuvant and high-purity excipient technologies to 16 commercial vaccine solutions for four of the diseases: malaria, hepatitis B, pneumococcal viruses, and meningitis.

Sustainably improving more than 22 million lives since 2021 through philanthropic investing

Since its formation at the end of 2020, Croda Foundation, an independent charitable organisation solely funded by Croda, has invested £5.4m of Croda's profits into 46 projects across the world. All focus on reducing hunger and poverty, improving access to healthcare and health provision, and protecting and restoring ecosystems. Since the first project, invested in 2021, Croda Foundation has sustainably improved the lives of more than 22.8 million people³, far exceeding our original ambition when we first conceived of the Croda Foundation (see case study p16).



Croda Foundation and Incotec: helping support indigenous communities and to protect the Amazon



Funding and technical support to Instituto Amazonas

In 2021 Croda Foundation awarded Instituto Amazonas (IA) a grant of £92,000. IA is a non-profit organisation, based in the state of Mato Grosso in Brazil, dedicated to protecting the cultural heritage, environment, and the health and wellbeing of indigenous populations in the Amazon. The award was enhanced by Croda Agriculture's seed enhancement business, Incotec. Employees from Holambra visited four indigenous communities to evaluate their seed banks and agricultural methods and provide technical support on cultivating and multiplying lost native seedlings.

Complementing traditional agricultural practices and improving food security

IA share modern agricultural techniques with indigenous communities to improve their yields, while complementing and preserving their traditional agricultural practices. With Croda's grant, 7,455 indigenous people across 11 tribes acquired skills that resulted in an income growth for their communities ranging from £600 to £2,000 a month. IA's project also resulted in the restoration of 3,300 hectares of the rainforest. The project not only strengthened cultural heritage but also improved food security and economic resilience, leaving a lasting positive impact on both the indigenous communities and the Amazon ecosystem.



Image: Croda employee Debora Esperanca who is supporting Instituto Amazonas with her expertise and Croda's smart science



Image: An indigenous community member supported through Croda Foundation's partnership with Instituto Amazonas

Croda Foundation

Croda established the Foundation in 2020 with the aim to sustainably improve lives by creating long-term resilient communities, through a combination of short-term interventions to address immediate needs and long-term initiatives to address root causes. The Foundation is embedded in Croda's culture, with employees not only responsible for nominating projects but also voluntarily supporting project partners on a case-by-case basis by providing their expertise and know-how, to maximise social impact.

Investing Croda funds and accessing expertise

Impact to date has been far reaching and diverse, with £5.4m committed in funding and 22.8 million lives sustainably improved via the Foundation's project partners.

In addition to the primary outcome of sustainably improving lives, Croda Foundation has also supported:

- 60,179 people to have increased income and skills to better support their livelihoods.
- 22.8 million people to have access to healthcare and/or clean drinking water that they didn't have previously.
- 129,006 trees planted through agroforestry projects.

1. [Croda Foundation 1st Impact Report 2024](#)

Five years of execution, collaboration and learning

Since launching our Commitment in 2020, we have made significant progress towards many of our milestones and 2030 targets. We have learned where we need to focus our efforts to maximise impact, and connected our Purpose and corporate strategy with our business plans, engaging our people around the Croda world.

As a result of our efforts over the last five years...

<p>...Executing our commitment</p> <ul style="list-style-type: none"> • 164,600 MT fewer GHG emissions have been emitted to atmosphere from our operations¹. • 291,321 fewer hectares of land have been required globally for agriculture². • An estimated 278m people protected from the harmful damage of UV rays through our sun protection technologies³. <ol style="list-style-type: none"> 1. Cumulative difference in Scope 1 and 2 emissions 2020-2024 vs estimation of Croda's emissions without action (assuming 2020 emissions level maintained) 2. Cumulative land area saved 2020-2024 above a 2019 baseline as a result of the use of our crop and seed technologies 3. Cumulative lives protected 2020-2024 	<p>...Collaborating to drive systemic change</p> <ul style="list-style-type: none"> • Cambridge Institute of Sustainability Leadership launched the Business Transformation Framework, the final output of the Business Transformation Group, to which Croda was a founder member⁴. • Action for Sustainable Derivatives, including Croda, helped member companies continually improve their palm derivative supply chain transparency, address grievances and launch an Impact Project to address socioeconomic challenges with smallholder farmers and restore ecosystems in the palm supply chains in Indonesia. <ol style="list-style-type: none"> 4. CISI 	<p>...Engaging our people</p> <ul style="list-style-type: none"> • A network of sustainability professionals across Croda come together regularly to share best practice, understand plans and progress across the organisation, and support each other to deliver our Commitment. • Hundreds of Croda employees, from engineer to procurement, from bench chemist to account manager, have been directly involved in executing our Commitment and connecting it to helping our customers deliver on theirs. • We are ready to launch our internal Sustainability Academy following successful pilots in 2024, to build the competence and confidence of our teams, and turn hundreds of engaged employees into thousands.
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Our timeline

 April 2020 Launch of our Commitment to be Climate, Land and People Positive by 2030. Aligned with 23 of the 169 UN SDG Targets, we set out to be ambitious and restorative in delivering impact	 July 2021 Croda is only the third major chemical company to gain verification for a 1.5°C aligned Science Based Target, including an absolute upstream Scope 3 target	 September 2022 We are invited to join the World Business Council for Sustainable Development (WBCSD): over 250 leading sustainable businesses leading the transformation to a Net Zero, Nature Positive and just future for all	 October 2022 We declare our aspiration to become Net Nature Positive by 2030, recognising our responsibility for nature impacts through purchasing bio-based raw materials and the opportunity for our Ag technologies
 January 2025 We have met or exceeded many of the 23 public sustainability milestones we set ourselves to deliver by the end of 2024, and already met 2 of our 2030 targets	 September 2024 Croda Foundation launches its first Impact Report, describing how it has sustainably improved more than 22m people's lives by investing £5.4m of Croda's profits since its creation in 2020.	 December 2023 Croda's Board approved the formation of a Sustainability Oversight Committee to create additional capacity at Board level for this growing area requiring increased governance, chaired by Chris Good, Non-Executive director.	 October 2023 We launch product level carbon footprint data to our Beauty Care customers. We have since shared data for more than 2,000 products with customers across all our focus markets
 January 2023 By the end of 2022, Croda had contributed to protecting more than 61 million people annually from potentially developing skin cancer caused by harmful UV rays. This is seven years ahead of our 2030 target			

Milestones

Key

Target achieved



On track to meet target



Target challenging to achieve



Fundamentals



Target nearly achieved by deadline



Target requires additional focus



Failed to achieve target



Climate Impact

Objective	2030 Target	Progress Milestones and metrics	Status	2024 Progress
Carbon Cover We will enable the transition to a low-carbon economy. We will be Climate Positive, working closely with our customers to develop products that offer carbon saving benefits in use.	<ul style="list-style-type: none"> By 2030, use of our products will avoid four times the carbon emissions associated with our business, our 4:1 carbon cover 	<ul style="list-style-type: none"> 2 million MT of CO₂e emissions savings delivered through use of our products by end of 2024 100% of our product portfolio evaluated for downstream Scope 3 impact by the end of 2024 		790,122 tonnes CO ₂ e ^Δ were avoided through the use of products attached to verified case studies, resulting in a Carbon Cover ratio of 0.84:1 ^Δ (2023: 0.90:1 [*]). Target met in 2023. In 2024, we focused on refining our methodology and assumptions with external stakeholders before replicating the Inventory for 2023 and 2024.
Reducing Emissions We will achieve our Science Based Targets (SBTs) by reducing our emissions in line with limiting the global temperature rise to 1.5°C above pre-industrial levels, maximising the use of renewable energy in our operations.	<ul style="list-style-type: none"> By 2030, we will have achieved our SBTs, in line with limiting global warming to 1.5°C Thereafter, by 2050 we will achieve net zero GHG emissions 	<ul style="list-style-type: none"> A reduction of 50,373 MT CO₂e (25% vs 2018 baseline) in absolute Scope 1 and Scope 2 emissions by the end of 2024 All Croda locations to have a decarbonisation roadmap by the end of 2022 		We have met our 2024 milestone with absolute Scope 1 and 2 emissions reduced by 28% since 2018 (2018: 156,057 tonnes CO ₂ e ⁺), on track to achieve our 1.5°C scope 1 and 2 SBT. Upstream Scope 3 emissions were 830,763 tonnes CO ₂ e ^Δ in 2024, 6% lower than 2018 (887,324 TCO ₂ e ⁺). See Annual Report page 43 for further details.
Sustainable Innovation We will accelerate the transition to bio-based products, moving away from fossil/ petrochemical feedstocks.	<ul style="list-style-type: none"> By 2030, over 75% of our organic raw materials by weight will be bio-based, absorbing carbon from the atmosphere as they grow 	<ul style="list-style-type: none"> 71% (rolling 3-year average) of our organic raw materials are bio-based by the end of 2024 		56% ^Δ (2023: 59%) of our organic raw material volume was from bio-based origin in 2024. The milestone was set before Croda divested many industrial businesses in 2022 and has not been restated.
Supplier Partnership We will ensure that all our key suppliers are operating safely, ethically and responsibly, and will promote the equitable sharing of benefits within the supply chain.	<ul style="list-style-type: none"> Ensure all key suppliers are responding to EcoVadis and engaging with us to improve practices 	<ul style="list-style-type: none"> By the end of 2024, all key suppliers will be required to achieve an average score from EcoVadis (or equivalent) or will have an action plan with timelines to close gaps By the end of 2024, key suppliers representing at least 50% of our raw material volumes will be required to sign up publicly to SBTi or equivalent carbon reduction targets By the end of 2024, suppliers of crop-based raw materials will be required to provide supply chain transparency in a fully traceable and certified sustainable manner. 		90.5% (2023: 83%) of our key suppliers, which provide 80% of our raw material volumes, have achieved the minimum required Ecovadis score (45/100). 66% of our raw material volume is covered by a public commitment to carbon reduction. 45% (2023: 16%) of our volumes are from suppliers with either a verified SBT approved target or following SBT guidelines. 88.2% of our palm derivatives globally are certified RSPO mass balanced. While we have not met our 2024 milestone, our businesses have prioritised certifying as sustainable other bio-based feedstocks, rollout of which will commence in 2025.
Quality Assurance: We will maximise our resource efficiency and minimise all types of waste energy, water and materials across our operations.	<ul style="list-style-type: none"> Achieve a 99.5% Right First Time (RFT) rate 	<ul style="list-style-type: none"> Achieve a 99.0% Right First Time (RFT) rate by the end of 2024 		RFT outcome for 2024 was 98.62% (2023: 98.42%). 26 Croda manufacturing sites achieved a RFT score of 99.0% or higher with the remaining sites a focus during 2025.

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Δ • See page 21 for details of Assurance and Restatements

Please refer to the Glossary on p23 for definitions of KPI terminology

Nature Impact

Objective	2030 Target	Progress	Milestones and metrics	Status	2024 Progress
Land Use We will save more land than we use. We will increase agricultural land use efficiency, protect biodiversity and improve food security by sourcing sustainably and inspiring innovation in our agrochemical businesses.	<ul style="list-style-type: none"> Throughout this decade, the land saved through the application of our crop protection and seed treatment technologies will exceed any increase in land used to grow our raw materials by at least a factor of two, and by 2030 we save a minimum 200,000 hectares per year more than in 2019 		<ul style="list-style-type: none"> By the end of 2024, the land area saved through use of Croda technologies will be at least 80,000 hectares per year above a 2019 baseline. 		Land area saved by use of our technologies in 2024 was 163,402 hectares ^a of land, 59,983 hectares above 2019 baseline (103,419 hectares*). Cumulative land area saved between 2020 and 2024 versus 2019 baseline: 291,321 Ha, exceeding the cumulative target of 195,622 Ha. Land used to grow our crop based raw materials in 2024 was 74,377 Ha.
Crop Science Innovation We will invest in innovation projects and partnerships to support crop and seed enhancement in mitigating the impact of a changing climate and land degradation.	<ul style="list-style-type: none"> Through to 2030 we will bring an average of two Crop technological breakthroughs to market each year that are in alignment with our SBTs and which help our customers mitigate the impact of climate change and land degradation By 2030, we will have established 3 new partnerships to contribute to the recovery of compromised farmland. We will work with customers, universities and business councils to achieve this 		<ul style="list-style-type: none"> By the end of 2024, we will have brought 10 qualifying technological breakthroughs to market. 		We launched 9 out of 10 qualifying breakthrough technologies by the end of 2024. We remain on track to launch an innovative biodegradable dispersant early in 2025 which would represent our 10 th breakthrough.
Environmental Stewardship We will protect the natural environment through the responsible management of our water consumption and waste production.	<ul style="list-style-type: none"> Reduce our water use impact by 50% from our 2018 baseline 		<ul style="list-style-type: none"> Develop and implement a methodology for water impact assessment by the end of 2021 Reduce our water use impact by 25% from 2018 baseline by the end of 2024 Eliminate process waste to landfill across our operations by the end of 2024 	  	Water withdrawal in 2024 was 3,248 ML, ^a a decrease of 30% since 2018. Our top four sites in water-stressed basins (in Brazil, France, India and Spain) have achieved a reduction in water use impact over 25% from 2018 baseline. Two other small sites (in Spain) did not meet the milestone target (see p14). Our success criteria for Zero Process Waste to Landfill (see p14) was achieved with >99% of process waste diverted from landfill in 2024.
Product Stewardship We will take a leadership role in life cycle assessment of our ingredients and their impact on the life cycle of our customers' products. This will help the markets in which we operate move towards more circular economies and reduce consumer and employee exposure to chemical hazards.	<ul style="list-style-type: none"> Full life cycle assessments (LCAs) for our top 100 ingredients 		<ul style="list-style-type: none"> Finalise Croda's LCA methodology with external input and verification by the end of 2021 Complete 40 LCAs by the end of 2024 	 	4 additional cradle-to-grave (full) LCAs were completed in 2024, bringing our total to 11. Focus in 2024 was maintained on completing 'cradle-to-gate' LCAs requested by our customers, with 50 customer-focused LCAs completed in total.

Please refer to the Glossary on p23 for definitions of KPI terminology

Social Impact

Objective	2030 Target	Progress Milestones and metrics	Status	2024 Progress
Health and wellbeing We will use our smart science to promote healthy lives and wellbeing through the development and application of our ingredients and technologies.	<ul style="list-style-type: none"> By 2030, we will contribute to the successful development and commercialisation of 25% of WHO listed pipeline vaccines By 2030, we will protect at least 60 million people annually from potentially developing skin cancer from harmful UV rays, through the use of our sun care ingredients 	<ul style="list-style-type: none"> By the end of 2024 our technology will be part of at least 10 clinical phase 3 trials across at least 25% of the WHO listed pipeline vaccines By the end of 2024 we will protect 1 million lives from skin cancer through the use of novel sun protection technologies. 	 	We have demonstrated supply of critical adjuvants and excipients into 16 commercial vaccines responding to 4 of the 24 WHO listed pipeline vaccines. 61 million people protected in 2022, achieving our 2030 target. 71 million people have been protected in 2024.
Gender Balance We will achieve gender balance in our business by focusing on recruitment and development opportunities to increase the number of women in decision-making positions.	<ul style="list-style-type: none"> By 2030, we will achieve gender balance across the leadership roles in our organisation 	<ul style="list-style-type: none"> We are rolling out gender-balanced shortlisting recruitment across Croda, with a target of having 80% of shortlists gender balanced by the end of 2023. 		41% ^A of leadership positions now filled by women (2023: 39%).
Improving More Lives We will promote our smart science and help improve lives using our technologies within our local communities, where our science can make a positive difference. We aim to create STEM educational opportunities and provide basic necessities through the use and application of our ingredients.	<ul style="list-style-type: none"> We will establish and fund a Croda Foundation to help permanently improve one million lives in relevant communities 	<ul style="list-style-type: none"> We will establish and fund a Croda Foundation to help permanently improve one million lives in relevant communities 		22.8m lives sustainably improved through investing £5.4m of Croda's funds in 46 projects 2021-2024.
F Health, Safety & Wellbeing We will protect the health, safety, and wellbeing at work of all of our people and contractors.	<ul style="list-style-type: none"> OSHA Total Recordable Injury Rate in the top 10% for the chemical industry 30% increase in positive responses to the wellbeing areas in our Global Employee Culture Survey. 	<ul style="list-style-type: none"> Achieve OSHA Total Recordable Injury Rate of 0.3 by the end of 2024. 		Full year Total Recordable Injury Rate 0.47 (2023: 0.72). While this is a significant improvement we missed our public milestones. Deployed a Human Performance Programme across the Group, driving employee engagement in SHE improvement across all functions and regions. In 2024, this programme delivered over 2,500 improvement activities and actions. 55% positive wellbeing responses (2023: 59%).

Please refer to the Glossary on p23 for definitions of KPI terminology

Objective	2030 Target	Progress Milestones and metrics	Status	2024 Progress
Process Safety We will protect the health and safety of all of our people, contractors and the communities in which we operate.	<ul style="list-style-type: none"> Zero significant process safety incidents per year We will continue to investigate and apply learnings from minor incidents and near misses. 	 	<ul style="list-style-type: none"> Conduct an independent peer review of our Process Risk Reviews (PRR) for high-hazard processes by the end of 2023. 	 Process Safety Total Incident Rate (PSTIR) 0.096 in 2024 (2023: 0.101).
Fair Income <ul style="list-style-type: none"> We will contribute to sustainable and inclusive economic growth by ensuring that everyone working at Croda sites receives a fair income. 	<ul style="list-style-type: none"> Everyone working at Croda locations, including temporary and permanent employees, and all contractors will receive a living wage that is monitored and reviewed annually 		<ul style="list-style-type: none"> All employees temporary and permanent will be paid a living wage by the end of 2022 All regularly employed contractors will be paid a Living Wage by end of 2024. 	  We are in the final stages of receiving certification from the Fair Wage Network (FWN) for the work we have done to date. In 2024 we completed an initial assessment of our contractor population and compliance with our Living Wage standards.
Knowledge Management <ul style="list-style-type: none"> We will manage our intellectual capital, ensuring employees acquire the knowledge and skills needed to promote the sustainable development of our business and promote lifelong learning opportunities for all. 	<ul style="list-style-type: none"> 2030 goal still to be developed 		<ul style="list-style-type: none"> 100% of employees will receive a minimum of one week's training per year by the end of 2025. 	 37% of our global workforce benefitted from a minimum of one week's training in 2024 (2023: 44%).

Please refer to the Glossary on p23 for definitions of KPI terminology

Restatements +

+ indicates where metrics have been restated in the ARA or SIR. Details are captured below to show the value as restated, the values reported in Annual Report 2023 are shown in brackets immediately afterwards and ±% change in our restatement.

1. Restatements made to prior year data in 2024 to complete the integration of Solus Biotech. **Scope 1 GHG emissions** 87,367 (86,740) tCO₂e, +0.7% change (2023), 111,189 (110,487) tCO₂e, +0.6% change (2022), 104,701 (104,088) tCO₂e, +0.6% change (2018). **Scope 2 GHG emissions (location-based)** 62,933 (60,834) tCO₂e, +3.5% change (2023). **Scope 2 GHG emissions (market-based)** 17,096 (14,506) tCO₂e, +17.9% change (2023), 14,214 (10,653) tCO₂e, +33.7% change (2022), 51,356 (46,882) tCO₂e, +9.5%

change (2018). **Scope 3 GHG emissions (upstream)** 690,722 (674,234) tCO₂e, +2.4% change (2023), 930,606 (918,810) tCO₂e, +1.3% change (2022), 887,324 (863,939) tCO₂e, +2.7% change (2018). **Emission intensity** 142 (138) tCO₂e/£m value add, +2.9% change (2023), 139 (134) tCO₂e/£m value add, +3.7% change (2022), 314 (306) tCO₂e/£m value add, +2.6% change (2018) and **Total energy consumption** 792,457,099 (777,947,568) kWh, +1.9% change (2023). Resulting combined totals and breakdown of energy consumption by scope have also been restated on ARA page 43.

2. Restatement made to prior year data in 2024 due to a correction to remove duplicated information in the data gathering (165Ml) (2023) and to complete the integration of Solus Biotech.

Water withdrawal 2,858 (3,007) ML, -5.0% change (2023).

3. Restatement made to prior year data in 2024 due to an improvement in the calculation method for **Land Area Saved** 183,123 (151,038) hectares, +21.2% change (2023), 193,025 (161,431) hectares, +19.6% change (2022), 103,419 (92,223) hectares, +12.1% change (2019).

4. Restatement made to prior year data in 2024 due to the application of a new rate of clothing damage for our laundry performance additive from a more recent study, the incorporation of the improved method for Land Area Saved (note 3) and the adjusted GHG emissions (note 1). **Carbon emissions avoided through the use of our products** 713,839 (812,620) tCO₂e, -12.2% change (2023). **Carbon cover ratio** 0.9:1 (1.05:1), -14.5% change (2023).

Limitations

Total Recordable Injury Rate (TRIR):

The 35% reduction in TRIR since 2023 is driven by a 32% reduction in injuries and 2% increase in headcount. A consistency issue has been identified with the hours worked data to account for the remaining difference. We are embarking on a programme to improve the consistency, accuracy and controls around this number.

Assurance Δ

Δ indicates where metrics have been assured (limited assurance) under ISAE (UK) 3000 and ISAE 3410 by KPMG, our independent assurance provider. See www.croda.com/sustainability for details.

Governance

To deliver our Commitment to be Climate, Land and People Positive by 2030, we have created robust governance mechanisms to hold ourselves to account.

Sustainability linked to incentives

Since 2020, non-financial metrics account for 30% of the long-term incentive plan for senior management.

A sustainability target, connected to safety, was included in the 2024 annual bonus scheme for all managers and leaders, accounting for 10% of the plan. For 2025, our Remuneration Committee has approved a sustainability element of the scheme that focuses attention on the data and system needs required to provide customers with product-level sustainability related data.

Our approach to ESG Disclosure Compliance

In line with current regulations, we will use our Annual Report & Accounts to share all ESG disclosures required by law. See p2 of this report for details of locations in the report for 2024. From 2025 Croda is required to comply with the EU Corporate Sustainability Reporting Directive (2023) and will disclose this information in the ARA.



For more details of our approach to governance of the sustainability agenda, visit www.croda.com

Board leadership

The Board has ultimate responsibility for monitoring and challenging our sustainability strategy, including overall accountability for the risks and opportunities associated with the climate, nature and social impacts of Croda's business. The Board takes into account the needs of all stakeholders in guiding delivery of the strategy.



A year of the Board Sustainability Oversight Committee

This new Committee was formed at the end of 2023 to create capacity and build capability for the Board, to monitor and assess progress against our sustainability strategy and ESG compliance. The Committee met four times in 2024, overseeing the Double Materiality Assessment process and developing their understanding of the nature agenda, net zero, upcoming regulations and the latest sustainability themes for businesses to consider.

Please refer to our ARA (p68) for the Sustainability Oversight Committee report.

Embedded ownership

In our new, simplified matrix organisation, accountability for delivery of the strategy is embedded across the Company, monitored by the Sustainability Committee, and supported by Group Sustainability, our in-house centre of excellence.



Sustainability Committee highlights

In 2024, due to overlapping agendas and attendees, the Sustainability and Ethics sub-committees of the Executive Committee were merged into one Sustainability Committee, chaired by the Group General Counsel, Company Secretary and President Sustainability, who is also accountable for sustainability at the Executive Committee. The new Committee met five times in 2024, focusing on progress against our current strategy milestones, the work required to update our sustainability strategy (to be completed in 2025); approving our material impacts, risks and opportunities, and also approving our proposed approach to CSRD reporting.



Glossary

£m	Million pounds sterling	RMF	Raw Material Feedstock
ARA	Annual Report	RSPO	Roundtable on Sustainable Palm Oil
ASD	Action for Sustainable Derivatives	SASB	Sustainability Accounting Standards Board
Carbon neutral	Elimination of Scope 1 and Scope 2 GHG emissions at a Croda location (e.g. manufacturing site, office)	SBT	Science Based Target In 2021 Croda's SBT was verified as a reduction in scope 1 and 2 GHG emissions by 46.2% by 2029 from a 2018 baseline year and a reduction in upstream scope 3 GHG emissions of 13.5% in the same timeframe
CSRD	Corporate Sustainability Reporting Directive	SBTi	Science Based Targets initiative
DMA	Double Materiality Assessment	SBTN	Science Based Target for Nature
EFCE	European Federation of Chemical Engineering	Scope 1	Direct emissions from our own or controlled sources
ERM	Enterprise Risk Management	Scope 2	Indirect emissions from the generation of purchased electricity, steam, heating and cooling. Croda reports using the market based method to quantify Scope 2 emissions.
ESG	Environmental, Social and Governance	Scope 3	All other indirect GHG emissions that occur in our value chain: <ul style="list-style-type: none">• Upstream comprises categories 3.1 - 3.8 inclusive.• Downstream comprises categories 3.9 - 3.15 inclusive
ESRS	European Sustainability Reporting Standards	SDG	Sustainable Development Goal
GHG	Greenhouse gas	SIR	Sustainability Impact Report
GRI	Global Reporting Initiative	TCO_{2e}	Tonnes carbon dioxide equivalent
IA	Instituto Amazonas	TNFD	Taskforce on Nature-related Financial Disclosures
IRO	Impacts, Risks and Opportunities	TRIR	Total Recordable Injury Rate
ISSB	International Sustainability Standards Board	UV	Ultraviolet
LCA	Life Cycle Assessment	VOC	Volatile Organic Compound
Net Zero	Aligned with the SBTi definition: Scope 1, 2 and 3 (upstream and downstream) GHG emissions have been reduced to a residual level (no more than 10% of baseline emissions). Any residual emissions are neutralised by permanent carbon removals to reach net zero emissions.	Water Impact	Widely accepted term for the impact of an organisation's activities, including those up and down the value chain, on water. May consider volume, quality, and location impacts
Organic	Carbon-containing, from renewable and/or fossil sources	Water Use Impact	Croda developed methodology to account for volumetric consumption, local water stress at source, water displacement effects and the quality of discharged water at our manufacturing locations
OSHA	Occupational Safety and Health Administration	WBCSD	World Business Council for Sustainable Development
PBT	Profit before tax	WHO	World Health Organization
Plc	Public limited company		
Process Waste	Waste materials associated with manufacturing processes only at our sites, both hazardous and non-hazardous		
PRR	Process Risk Review		