

GRI Sustainability Reporting 2019

This is the twelfth consecutive year that we have provided a Global Reporting Initiative (GRI) Report. We are reporting to a self-declared 'Core' accordance level for the reporting period 1 January 2019 to 31 December 2019.

Our separately published 2019 Sustainability Report contains a significant amount of information relating to GRI content whilst some information can also be found in our 2019 Annual Report and, where applicable, will be indicated in the following content index.

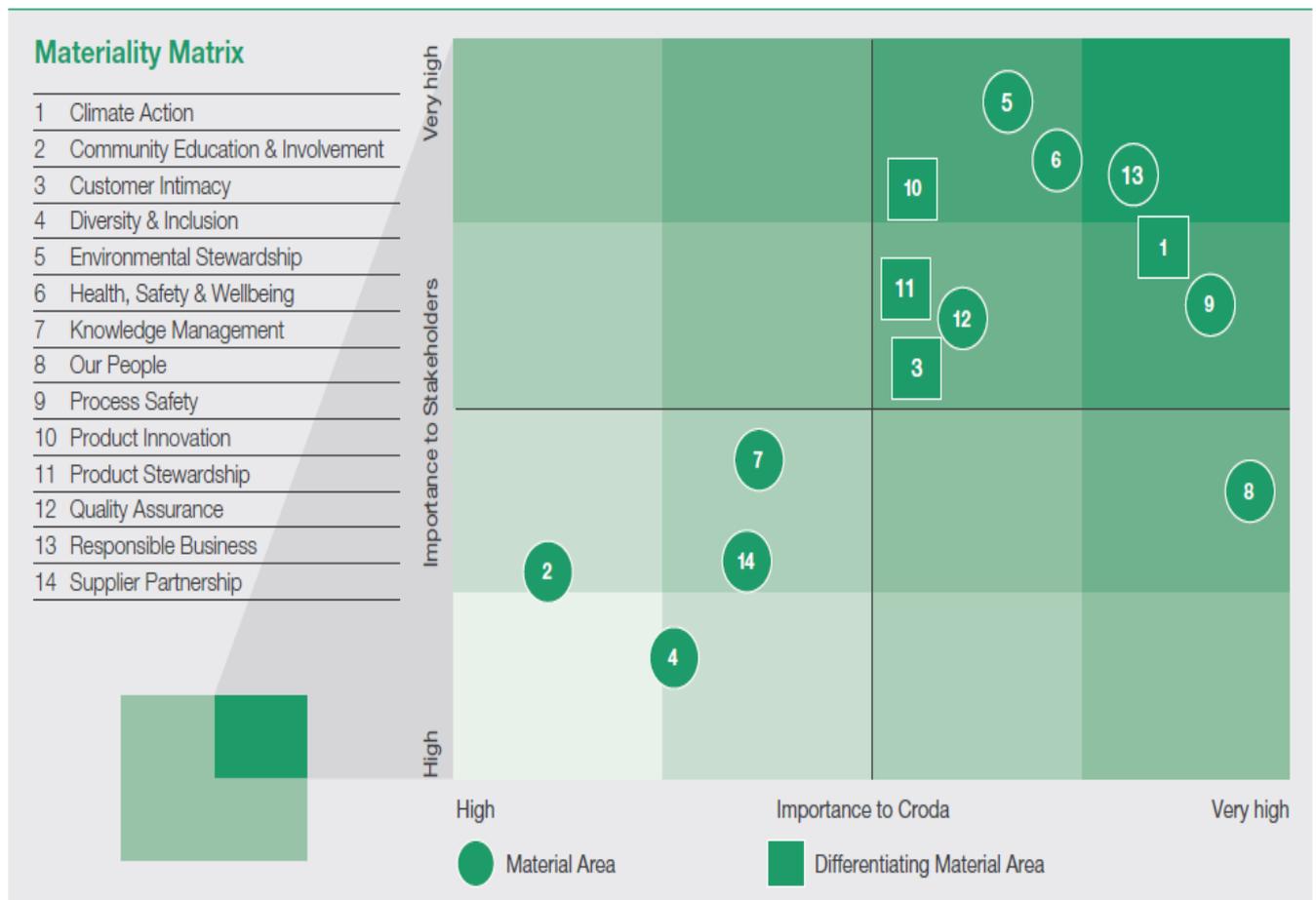
This GRI report provides further details not found in either of these two reports, whilst further information on key topics can be found on the company website www.croda.com. Any supporting information is indicated throughout this report, where relevant.

A GRI content index can be found on the following pages and online at www.croda.com/gri, summarising the location of all relevant GRI information.

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Our 2019 GRI Report is integral to our corporate reporting suite, providing comprehensive insights into our sustainable value creation. Here we outline a management approach according to the GRI Standards, as well as the corresponding, topic specific GRI disclosures.

Those material topics identified as of *very high importance* to both Croda and our Stakeholders, as presented in the materiality matrix below are listed at the beginning of this document.



Croda Materiality Matrix

Index

Material Area - Differentiators

Climate Action

Customer Intimacy

Product Innovation

Product Stewardship

Material Area

Quality Assurance

Environmental Stewardship

Health, Safety & Wellbeing

Process Safety

Responsible Business

General Disclosures

Glossary of Terms

GRI Content Index

MATERIAL AREA – DIFFERENTIATORS

Management Approach: Climate Action

GRI 103-1 Explanation of the material topic and its boundary

Basis for materiality

Industrial development has powered humanity's journey towards a climate emergency. Now, smart science and collaboration are our most effective tools to start reducing our impact on the planet, society and our businesses and markets.

The need to address society's impact on climate change through a global reduction in GHG emissions is a hugely important aspect of our strategy and 'The Croda Difference'. Our work in this area is driven by our own operational emissions reduction targets, alongside an understanding that our impact on emissions also encompasses our upstream and downstream supply chain, which includes our high usage of bio-based raw materials. This is in addition to the emissions avoided through the performance benefits our ingredients offer when in use by our customers and their consumers.

Business stakeholders are increasingly focused on this issue: customers and end users are insisting on low-carbon alternatives to GHG intensive products. Financial actors are demonstrating a greater appetite for companies who demonstrate resilience to climate-related risks and opportunities over short, medium & long-term.

Our Purpose, Smart Science to Improve Lives™, sets out our ambitious goals to be Climate Positive, Land Positive and People Positive. We have a long history as a supplier of sustainable innovative ingredients. As we enter the new decade, we must further accelerate our positive impact by creating and delivering solutions to tackle some of the biggest challenges the world is facing.

Contribution to value creation

As well as reducing our own carbon emissions through the optimisation of its operations, we also contribute to avoided greenhouse gas emissions with our numerous sustainable products that deliver 'in use' benefits to our customers. Inclusion of our products in customer formulations can offer many

kinds of benefits in use: social, economic and environmental, for both our customers and their consumers. All new products launched during 2019, have a known sustainability benefit in use. Last year, we began to quantify the avoidance or reduction of GHG emissions associated with the use of our products by our customers or consumers in the end application.

Decreasing materials and energy consumption reduces cost and further increases the company's competitiveness, adding value throughout the value chain.

Read more: [2019 Sustainability Report](#)

Boundary

Climate change is relevant for our own operations, our global supply chains, our customers and the entire life cycle of our products.

GRI 103-2 The management approach and its components

Resources and Responsibilities

At Croda, our two most senior committees, the Board of Directors and Group Executive Committee are ultimately responsible for our economic, environmental and social performance and they maintain an active role in ensuring that sustainability remains an integral element of our business strategy. We are forming a Sustainability Steering Committee who will own the delivery of our strategy and guide our senior committees on future strategy development. Recently, we appointed a President of Sustainability to provide full time focus on sustainability and to offer direction for our Group Sustainability Team. We have also created a Product Sustainability Subgroup whose focus is to understand and meet the intrinsic and extrinsic product sustainability requirements of our customers and other stakeholders and align business and customer needs with corporate strategy in all aspects of product sustainability. However, our people recognise that mitigating climate change is the responsibility of all employees throughout the business.

Goals and targets

In line with our Purpose, our Commitment is to become the most sustainable supplier of innovative ingredients. By aligning our smart science with the UN SDGs (United Nations Sustainable

Development Goals) we will ensure that we are helping to tackle some of the biggest challenges the world is facing. In 2015 we set the following ambitious energy and carbon targets for 2020 compared to a 2015 baseline:

- Based on 2015, to reduce total Group energy intensity by 5% by the end of 2020
- Based on 2015, to reduce total Group carbon intensity by 10% by the end of 2020
- Based on 2015, to generate 27% of the Group's total energy requirements from non-fossil fuel sources by the end of 2020.

Read more: [GRI 302-1](#), [GRI 302-3](#)

Read more: [2019 Sustainability Report](#)

GRI 103-3 Evaluation of the management approach and measurement

Evaluation and outcome

At Croda we monitor our climate impact by collecting and analysing data on energy consumption and greenhouse gas emissions across our business areas. Therefore, we track the trajectory necessary to achieve our 2020 environmental targets. We are well on track to meet these ambitious goals.

Since 2015, we also report on our Scope 3 emissions in order to meet growing expectations of external stakeholders regarding the development of a holistic climate strategy. This strategy includes a reduction in value chain emissions by opting for cleaner energy sources and engaging our supply chain using the CDP Climate Change questionnaire.

Read more: [2019 Sustainability report](#)

GRI 302-1 Energy consumption within the organisation

At Croda, we have carefully measured emissions of gases implicated in climate change for more than 15 years and have consistently set targets for reduction. Increasingly demanding targets have been set for 2020 by our Group Executive Committee under the guidance of the SHE Steering Committee. To ensure actions can be taken to bring about change, all previous major SHE targets are set over a five-year time period. However, our new SHE targets have been set to a 2030 target deadline

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Total energy consumption in 2019 was 3,640,416 GJ.

Total fuel consumption from non-renewable sources (GJ)	2015	2016	2017	2018	2019
Natural gas	2,364,482	2,358,167	2,474,188	2,847,191	2,591,152
Light fuel oil	37,982	16,246	13,621	18,574	31,510
Heavy fuel oil	5,670	3,026	2,866	3,125	2,745
Gasoline	963	1,349	1,202	1,435	1,623
Propane/LPG	5,670	5,965	5,484	5,882	4,900
Diesel (Vehicle Fuel)	8,069	7,323	6,771	6,903	6,446
Total	2,422,836	2,392,076	2,504,132	2,883,110	2,638,375

Total fuel consumption from renewable sources (GJ)	2015	2016	2017	2018	2019
Biofuel	3,490	2,001	8,775	11,387	14,393
Wind turbine/Solar	22,337	14,425	20,044	19,274	21,262
Total	25,827	16,426	28,819	30,661	35,655

Self-generated electricity which was not consumed (GJ)	2015	2016	2017	2018	2019
Wind turbine	3,117	1,458	2,646	3,015	2,704
Total	3,117	1,458	2,646	3,015	2,704

Total intermediate energy consumed (GJ)	2015	2016	2017	2018	2019
Electricity	512,182	504,450	505,658	559,445	530,792
Steam	115,232	96,722	129,001	126,504	141,504
Total	627,414	601,172	654,248	685,949	672,296

Direct energy sources sold (GJ):

Direct energy sources sold (GJ):	2017	2018	2019
Electricity	2,986	3,291	2,423
Steam	0	0	0
Total	2,986	3,291	2,423

Data is reported by sites on quarterly basis using meter readings or invoice data. International electricity conversion factors are taken from: International Energy Agency Data Services - 'CO₂ emissions from fuel combustion' latest available edition. Fuel conversion factors are taken from the Greenhouse Gas Protocol Initiative (GHG Protocol)

GRI 302-3 Energy intensity

Energy intensity for 2019 was 6,207 per £1m turnover (6,790 GJ per £1m turnover in 2018). Energy intensity is based on our 'value added', which is operating profit before depreciation and employee costs. To calculate energy intensity, we divide energy consumption by value added. The types of energy included in the intensity ratio are electricity, fuel, steam consumed within the organisation.

GRI 302-4 Reduction of energy consumption

In 2015, we set a target to reduce total group energy intensity by 5% by the end of 2020, using the 2015 baseline.

Energy intensity is based on our 'value added', which is operating profit before depreciation and employee costs. To calculate energy intensity we divide energy consumption by value added, which for 2019 saw an 13% reduction compared to 2015, indicative of our efforts to reduce overall energy use by investing in more energy efficient processes, such as biotechnology and novel plant equipment, and running them more efficiently

During 2019, in line with our commitment to continue investing in energy saving initiatives, we mapped the steam and electricity distributions across some of our manufacturing sites to gain a greater understanding of the energy requirements of different processes. This data is used in our cradle-to-gate LCA calculations for new and existing products and will help us to evaluate which processes or chemistries have the greatest impact on our product carbon footprints. LCA data will

also help to support capital expenditure proposals for investments in renewable energy generation or novel energy efficient processes. The mapping of our manufacturing sites will continue into 2019 and beyond.

Read more: 2019 Sustainability Report.

GRI 305-1 Direct (scope 1) greenhouse gas (GHG) emissions

We measure GHG emissions at all our manufacturing and non-manufacturing sites against to a baseline year of 2015, against which all our current environmental targets are set. Between 2015 – 2018 our Scope 1 GHG emissions have received limited verification in accordance with the requirements of the ISO 14064-3 standard by Carbon Smart and in 2019 we received reasonable verification by Carbon Smart.

Scope 1 GHG emissions (tCO ₂ e):	2015	2016	2017	2018	2019
Fossil Fuels	126,551	123,418	129,924	148,411	136,482
Biofuels	454	1,590	1,473	1,495	1,286
VOC	534	473	540	556	263
Non-Manufacturing	2,953	3,069	2,625	2749	1,841
Total Gross	130,492	128,550	134,562	153,211	139,872

Types of GHG included, as applicable: CO₂, N₂O, CH₄, HFCs, PFCs and SF₆. The baseline year data is 2015 for the current five-year target period and is recalculated when we acquire or shed sites. Emissions factors are calculated using the GHG Protocol and International Energy Agency's published conversion factors and the methodology used is as per GHG Protocol Corporate Standard. Manufacturing sites, sales offices and distribution centres which we have financial control are included.

Since 2015, we have seen a 7.2% increase in CO₂ emissions. In 2019, our use of non-fossil fuels and renewable energy has eliminated 23,009 tonnes of CO₂ emissions, which is equivalent to taking 11,563 cars off the road for a year.

For further details on our GHG emissions, please see our CDP Report.

GRI 305-2 Energy indirect (scope 2) GHG emissions

We measure GHG emissions at all of our manufacturing and non-manufacturing sites against our baseline year of 2015. Between 2015 - 2018 our Scope 2 GHG emissions have received limited verification in accordance with the requirements of the ISO 14064-3 standard by Carbon Smart and in 2019 we received reasonable verification by Carbon Smart.

Scope 2 GHG emissions (tCO ₂ e):	2015*	2016*	2017**	2018**	2019**
Electricity	64,569	61,861	40,981	39,386	33,267
Steam	7,158	5,489	7,074	6,588	692
Total	71,727	67,350	48,055	45,974	33,959

*Location-based emissions **Market-based emissions

Types of GHG included, as applicable: CO₂, N₂O, CH₄, HFCs, PFCs and SF₆. The baseline year data is 2015 for the current five-year target period and is recalculated when we acquire or shed sites. Emissions factors are calculated using the GHG Protocol and International Energy Agency's published conversion factors and the methodology used is as per GHG Protocol Corporate Standard. Manufacturing and non-manufacturing sites which we have financial control of are included.

Scope 2 GHG location-based emissions decreased by 6.1 % during period 2015 to 2016.

Scope 2 GHG market-based emissions decreased by 29.3% during period 2017 – 2019.

There has been a 52.6% decrease overall in scope 2 GHG emissions based on a 2015 baseline.

For further details on our GHG emissions, please see our CDP Report.

GRI 305-3 Other indirect (Scope 3) GHG emissions

In 2015, we began measuring scope 3 carbon emissions. Between 2015 - 2018 our Scope 3 GHG emissions have received limited verification in accordance with the requirements of the ISO14064-3 standard. The materiality and accuracy of these reported emissions underwent significant development by us and Carbon Smart's observations on development needs were actively incorporated into our approach for future reporting. As a result of this effort, in 2019, we received reasonable verification, the highest level of verification awarded by Carbon Smart.

Read more: <https://www.croda.com/en-gb/sustainability/transparency-traceability-and-regulatory/carbon-verification>

Scope 3 GHG sources included in the verification process:

Raw materials; water supply and treatment; legal services; capital goods; well to tank fuels; well to tank electricity; electricity transmission and distribution (T&D), waste; air travel; car travel; other travel; employee commuting; upstream T&D.

Scope 3 GHG emission (tCO ₂ e):	2015	2016	2017	2018	2019
Purchased goods and services	558,556	513,668	628,038	591,878	623,516
Capital goods	102,082	116,230	116,230	175,325	113,486
Fuel and energy related activities	32,454	31,668	33,574	36,099	32,390
Upstream transportation and distribution	58,584	86,587	99,275	100,148	96,644
Waste generated in operations	1,175	1,137	1,337	1,472	1,685
Business travel	10,882	12,972	15,585	16,459	17,534
Employee commuting	5,111	8,729	5,330	5,321	5,391
Total emissions	768,844	770,991	899,368	926,702	890,646

Types of GHG included, as applicable: CO₂, N₂O, CH₄, HFCs, PFCs and SF₆. The baseline year data is 2015 for the current five-year target period and is recalculated when we acquire or shed sites. Emissions factors are calculated using the GHG Protocol and International Energy Agency's published conversion factors and the methodology used is as per GHG Protocol Corporate Standard. Manufacturing and non-manufacturing sites which we have financial control of are included.

In addition to these asserted scope 3 emissions, Carbon Smart has also verified the temporary biogenic carbon sequestration associated with one specific bio-based raw material we purchased in year ending 31 December 2019, as 233,257 tCO₂e. However, they note that this figure does not consider downstream emissions associated with this raw material and therefore does not include any end of life emissions associated with its use.

GRI 305-4 GHG emissions intensity

We set a target to reduce total Group Scope 1 and 2 GHG emissions intensity by 10% from a 2015 baseline. We are currently on track to achieve this 2020 target with a reduction in GHG emission intensity of 21.9% in 2019 compared with 2015. Since our ECO bio-ethylene oxide plant came online in 2018 (production of our own ethylene oxide), our Group scope 1 and 2 emissions have increased, so whilst we are reducing carbon emissions elsewhere in our supply chain, we are

taking on a greater burden ourselves. However, even with the inclusion of our ECO plant, other carbon projects taking place across the group, we anticipate meeting this target.

GHG emissions intensity for 2019 was 145.3 tonnes tCO₂e / £m.

Our chosen measure of GHG emission intensity divides our scope 1 and 2 GHG emissions by value added, defined as operating profit before depreciation and employee costs at 2015 constant currency. The 21.9% reduction in emissions intensity since 2015 illustrates how our business has grown without a negative impact on GHG emissions intensity.

Types of GHG included, as applicable: CO₂, N₂O, CH₄, HFCs, PFCs and SF₆.

GRI 305-5 Reduction of GHG emissions

As with all of our environmental impact targets, we report data for manufacturing sites against a baseline year of 2015.

Since 2015, our baseline year, total scope 1 and 2 emissions have risen by 7.5%, given that our business has expanded, and new capacity has been commissioned. Within this, scope 1 emissions have increased by 7.6%, whilst location-based scope 2 emissions have decreased by 11.7%. We have been working on a project to increase the accuracy of our scope 3 emissions reporting, and this year used a hybrid model to calculate the emissions associated with our "Purchased Goods and Services" category, which provide the largest contribution to overall scope 3 emissions. With this increased accuracy, the total amount of scope 3 emissions has increased. Once we have an accurate measure of the scope 3 carbon associated with our raw materials, we will be able to work with our suppliers to reduce these emissions.

Changes in total GHG emissions (tCO ₂ e):	2015	2016	2017	2018	2019
Scope 1	130,492	128,550	134,562	153,211	140,403
Scope 2	71,727	67,350	66,432	67,176	63,303
Scope 3	815,828	818,124	942,134	968,290	890,646
Total	1,018,047	1,014,024	1,143,128	1,188,677	1,094,352

The baseline year data is 2015 for the current five-year target period and is recalculated when we acquire or shed sites. Emissions factors are calculated using the GHG Protocol and International Energy Agency's published conversion factors and the methodology used is as per GHG Protocol Corporate Standard. Manufacturing sites and non-manufacturing sites which we have financial control of are included. Types of GHG included, as applicable: CO₂, N₂O, CH₄, HFCs, PFCs and SF₆.

Management Approach: Customer Privacy:

GRI 103-1 Explanation of the material topic and its boundary

Basis for materiality

Customer engagement and a commitment to delivering thousands of innovative, sustainable solutions to thousands of customers without third party distributors lies at the heart of our commercial strategy. This requires an unrivalled level of customer engagement and intimacy on a global scale.

Contribution to value creation

By being close to our customers, both physically and strategically, we develop a deep understanding of their business development objectives. As well as being as close to our customers as possible, we add value by sharing market insight to identify future opportunities, engage R&D and provide sustainable solutions to improve performance. By becoming our customers' indispensable strategic partner, we help them satisfy their consumers' needs. Such insight enables us to not only fulfil customer needs, but also to stay one step ahead of the competition, anticipating new consumer demands and acting quickly to help customers capture new market opportunities.

Boundary

All of our market sectors have tailored marketing teams that focus on strengthening relationships with customers.

GRI 103-2 The management approach and its components

Resources and Responsibilities

Each of our market sectors has a dedicated research, sales and marketing team who work in close collaboration with several departments within our customers' organisations and report to the Executive Committee. These touch points include research and development, marketing, production, purchasing, quality, regulatory and sustainability. Engaging with customers is essential to understand their needs and create continuous, profitable growth.

Further components

Through our Open Innovation and Smart Partnering Programmes with universities and small and medium enterprises, we identify unique opportunities that add value to our customers' products and satisfy the unmet needs of consumers. We are focused on innovation, with teams across our business dedicated to creating new and improved ingredients in collaboration with our customers.

GRI 103-3 Evaluation of the management approach and measurement

Evaluation and outcome

In addition to the feedback received from customer interactions throughout the year, we engaged in external stakeholder feedback exercises. Our Board also engages with customers through the Group Chief Executive and receives regular information about customers in the Group Chief Executive's Board Report and in other business Board reports.

Indicators

Sustainability and communication specialists, Corporate Citizenship, carried out recent interviews with representatives from our different stakeholder groups including customers. The feedback regarding their relationship with us was overwhelmingly positive, with stakeholders regularly using the terms 'innovative' and 'natural' unprompted.

Fostering these close relationships with our customers helps us to identify and find innovative solutions for unmet needs globally.

Read more: page 24, 2019 Sustainability Report

GRI 418-1 Substantiated complaints regarding breaches of customer privacy and losses of customer data

We respect the privacy of our customers and our aim is to ensure the highest levels of accuracy, security and confidentiality. Our company website contains details of our Privacy Policy and at any time we can be contacted with questions or concerns with respect to this policy. Contact details can be found in the Privacy Policy itself.

During the year we were not aware of any breaches of customer privacy and we continue to apply good practice as defined in our Privacy Policy.

Management Approach - Product Innovation:

GRI 103-1 Explanation of the material topic and its boundary

Basis for materiality

Innovation is a key pillar of our business model which goes beyond delivering more value and benefit from ingredients with a lower environmental footprint. Today, more than ever before, we are innovating up and down the value chains. Creating new ingredients in our research centres and in collaboration with our customers, suppliers and Open Innovation and Smart Partners, we are identifying and commercialising unique opportunities that add value to our customers' products, satisfy the needs of their consumers and improve lives.

Our innovations have the power to help tackle the global challenges associated with feeding and supporting a growing, ageing population, satisfying the expectations of digitally empowered and environmentally aware consumers who expect greater performance levels from products and services than ever before.

Living a culture of innovation is also an increasingly important factor in creating a compelling working environment. It contributes to employee motivation and thus helps us attract and retain people.

Boundary

Innovation is the lifeblood of our business. Success relies on our people's drive for continuous improvement, especially our technical and commercial experts as we focus on increasing our sales of new and protected products. We therefore strive to attract a diverse array of talent, develop our people and foster a can-do attitude. As we expand into faster growth markets, we are increasing the number of our innovation centres in locations where our people can get closer to our customers.

Innovation within our business does not just mean inventing the new, but adapting existing science to different uses and markets, creating added sustainability and performance benefits for our customers and their consumers.

GRI 103-2 The management approach and its components

Responsibilities and resources

Our local specialists work as one global team, sharing knowledge to grow our extensive innovation pipeline and valuable protected intellectual property. Through our Open Innovation and Smart Partnering Programmes, we collaborate with world leading academics, universities, start-ups and technology specialists. At any one time we are working on more than 80 of these partnerships, with almost everyone having the potential to deliver a sustainability benefit, we constantly pursue new and novel technologies to address unmet consumer needs. Our innovation activities focus on products and processes, impacting the entire value chain from suppliers and internal operations to customers and end users. As a result of these collaborations with our partners and customers, we design new products that help them meet their ever more demanding performance and sustainability needs. Our continued innovation in these areas is driven by our understanding of the intrinsic sustainability of our products, using techniques such as Life Cycle Assessment (LCA).

Goals and targets

In 2017, we set a 2018 target to characterise the relevant environmental and social impacts of key product families using Life Cycle Analysis (LCA). We have completed this target, although work in this area will continue. With the appointment of specialist resource in this area, we have developed in-house capability to conduct Life Cycle Assessments of our products and carry these assessments out in business priority.

Read more: pages 24, 25 & 33 of our 2019 Sustainability Report

GRI 103-3 Evaluation of the management approach

Evaluation and outcome

We are focused on innovation, with teams across our business dedicated to creating new and improved ingredients in collaboration with our customers. Since 2012, we have measured the compliance of our new products with the 12 Principles of Green Chemistry (*Anastas, et al., Green Chemistry Theory and Practice, Oxford University press, New York, 1998*). Our innovation pipeline delivered 36 new product launches in 2019 across our businesses, with an average score of 9.3 out of 12 of the Green Principles, together with 63% average bio-based organic content.

It is our internal knowledge of our technologies, the ingredients we produce and how they are produced that gives us a competitive edge; therefore, protecting and retaining this knowledge is very important to the sustainability of our business. In support of this, we have developed career paths that provide development, not only in traditional leadership roles, but also for technical and scientific specialists.

Indicators

After continuous significant investment in our innovation pipeline sales of New and Protected Products (NPP) in 2019 were 28.1% (2018: 28.2%) of total Group sales.

Read more: page 32 and throughout the sector reviews in our 2019 Annual Report

Management Approach – Product Stewardship

GRI 103-1 Explanation of the material topic and its boundary

Basis for materiality

From the sourcing of our raw materials right through to the delivery of a safe product to our customers, we are committed to responsible stewardship at every stage of the supply chain, ensuring that all relevant legislation and registrations are met.

Sustainability leadership goes even further and requires us to proactively pursue more sustainable and innovative solutions. We focus our portfolio toward products that consider all three dimensions of sustainability: economic, social and environmental. From 2018, we also increased our focus on solutions that support the United Nations Sustainable Development Goals (UN SDGs) as a moral business imperative.

Contribution to value creation

By responsibly sourcing of our raw materials, maximising our use of bio-based raw materials and land use productivity, and ensuring the supply of safe and sustainable products through regulatory leadership we add value to our portfolio, preventing reputational or legal damage. Additionally, our product stewardship influences the raw materials we source and the impacts on the land use required to grow our bio-based raw materials.

Boundary

Product stewardship and sustainable chemistry applies to all product cycles from cradle to gate, as impacts can result from all phases of product development, operations, and downstream value chains.

We will take a leadership role in the life cycle assessment of our ingredients and their impact on the life cycle of our customers' products.

GRI 103-2 The management approach and its components

Responsibilities and resources

Product Stewardship principles are increasingly becoming enshrined within both chemical and end use legislation across the globe. We are actively engaged within trade associations and through meetings with government bodies working to shape the legislation and its effective implementation.

Our globally oriented approach ensures that local and regional product stewardship and Product Safety and Regulatory Affairs (PSRA) teams play an integral role in global Product Stewardship, supporting the business and providing external customer communication on all regulatory issues regarding the management of chemicals.

Goals and targets

We have several targets relating to product stewardship relating to upstream supply chain risks, RSPO certified palm oil, raw material traceability and deforestation. Further details can be found our 2019 Sustainability Report.

Read more: page 38, 2019 Sustainability Report

Further components

Our product stewardship practices are hugely important to the innovation process, capturing our regulatory work to ensure that the products we supply are safe and that we can provide customers with all the information they need.

GRI 416-1 Assessment of the health and safety impact of product and service categories

All our products are assessed for their health, environmental and safety impacts from the product development stage, with advice available to the end customers so that any identified risks are known and can be controlled.

Product concepts come from a variety of sources, including customer interaction, market awareness and emerging product trends. In all these areas our research teams liaise with our product safety and regulatory affairs department from the beginning of new product development to ensure that products are assessed for their health, safety and environmental effects. Additional screening tests and modelling may be carried out depending on the expected end use of the product to enable safety assessments to be completed by our customers.

Our scientists ensure that our products meet as many of the 12 Principles of Green Chemistry as is reasonably practical. A number of these relate to reducing harm to human health during development, manufacture and end use. Wherever practically possible we stick to the principles relating to health and safety from the 12 Principles of Green Chemistry:

- Wherever reasonably practicable, synthetic methodologies should be designed to use and generate substances that possess little or no toxicity to human health and the environment.
- Chemical products should be designed to preserve efficacy of function while reducing toxicity.
- Chemical products should be designed so that at the end of their function they do not persist in the environment but do break down into innocuous degradation products.
- Analytical methodologies need to be further developed to allow for real-time, in-process monitoring and control prior to the formation of hazardous substances.
- Substances and the form of a substance used in a chemical process should be chosen to minimize potential for chemical accidents, including releases, explosions, and fires.

These principles are embedded in our new product development processes.

We have controls in place within our Enterprise Resource Planning System to ensure that a safety data sheet is produced for all products prior to manufacture to ensure that they are assessed against the criteria of the United Nations Globally Harmonized System (GHS) of Classification and Labelling of Chemicals so that all health, safety and environmental aspects can be considered for manufacturing, production, storage, distribution, supply and end product use.

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During the manufacture of our products the risks to health and safety are managed by the Safety Health and Environment (SHE) department at each of our manufacturing sites. There are policies and procedures in place to ensure process safety and quality control. Our 19 manufacturing sites around the world are certified to the ISO14001 standard and accredited to the OHSAS 18001 standard for safety management. We are committed to Responsible Care®, which underlines our commitment to SHE improvement. There are procedures and systems in place to ensure the safe storage of hazardous chemicals; this information is passed on to our customers where applicable. We have systems and procedures in place to deal with any transportation issue or emergency situation that may affect surrounding communities.

We ensure that all the products that we supply are accompanied by a material safety data sheet (MSDS), which details any health and safety issues with the product as well as environmental effects such as persistence and bioaccumulation. This goes beyond our legal requirements, where MSDSs are only required in specific circumstances and all our products are labelled according to regulatory requirement in the regions in which they are sold.

Our sales and marketing teams work closely with our research teams and regulatory department to ensure that any details that are provided to customers relating to health and safety are accurate and reflect the information that is sent out with the products that we supply.

There is a move within chemical control legislation to require that risk assessments are completed to ensure that any hazard associated with a product is adequately controlled from the manufacture of the product through to its end use and associated service life. In many jurisdictions' chemicals requiring assessment are prioritised on the basis of known hazards. Within Europe this requirement is captured under the REACH regulation (Regulation (EC) No 1907/2006). The EU chemicals regulation, REACH, concerning the Registration, Evaluation, Authorisation and restriction of Chemicals, came into force on 1 June 2007 creating a single regulatory system for dealing with chemical substances.

To conform to REACH regulations, each producer and importer of chemicals in volumes of one tonne or more per year must register them with the European Chemicals Agency (ECHA) and submit information on their properties, uses and safe ways of handling them. This registration obligation has been phased in with three key deadlines according to volume and hazard. Phase 1 was completed in December 2010 for volumes >1000 tonnes per annum (tpa) and certain high hazardous

substances. Phase 2 had a deadline of 1 June 2013 for volumes ≥ 100 tpa. The phase 3 deadline was 1 June 2018 for all substances ≥ 1 tpa

We have played a lead role in REACH registrations since the beginning, with our Product Safety and Regulatory Affairs team working to coordinate the generation and gathering of information to support registrations for products across the whole portfolio. As of 2017, registrations have been submitted in all three phases with the final phase being the most important in terms of the range of products captured.

In general, our products comprise a small percentage of the final product, so it is a challenge for us to manage the health and safety implications in finished products. By providing good quality information and data to our customers we allow them to make informed decisions and accurately determine if there could be any potential issues for end consumers.

Our control over the ultimate disposal of the goods that contain our products is also limited, however we control what we can by ensuring that our products are as environmentally friendly as possible by examining biodegradability and persistence, and have minimal potential impact to human health in terms of toxicity and bioaccumulation.

GRI 416-2 Incidents of non-compliance concerning the health and safety impacts of products and services

We have formal procedures in place to capture any non-compliance with regulations or codes relating to the health and safety of our products. We have a formal complaints procedure and all our customers have at least one sales contact within the business. It is our intention to enhance this procedure to further embed it within our business to capture any issues or areas of potential risk.

During the year we were not aware of any incidents relating to non-compliance in this area.

GRI 417-1 Requirements for product and service information and labelling

Due to strict legislation within the chemical industry in the area of product labelling, we ensure that we conform to all regulations in the regions in which we operate, and we aim to exceed these standards where possible.

We require information related to health and safety and the labelling of products from all our suppliers, this information is collected at each manufacturing site and is passed on to our product

safety and regulatory affairs department. In general, this information is received in the form of a material safety data sheet (MSDS), but where we require more information for regulatory purposes, we work with our suppliers to gain the data that we require.

The procedure for the MSDS means that 100% of our products are required to be labelled with information relating to content, safe use and disposal of the product. The sourcing of the components of the product is not given on the MSDS but it is stored in our procurement system SAP if the information is required by the customer.

All products are assessed against the relevant national and international chemical labelling legislation to ensure that the health, safety and environmental hazards of the product are assessed, and the appropriate hazard and precautionary statements are used. Information about safe handling and use of our products is passed on to our customers in MSDSs and product safety information statements.

We work closely with our customers to ensure that our chemicals are sufficiently assessed for safe use in end consumer products and ensure that any environmental or health impacts of our products are identified. As our products are generally used as a small percentage of end consumer goods, the information that we provide to our customers is vital for them to accurately determine any potentially harmful effects of their formulations for consumers or the environment.

Any potentially hazardous effects of our products to human health or the environment are identified and clearly shown on our product labels and in the MSDSs that we provide to our customers. These include, amongst others, biodegradation, persistence, bioaccumulation and toxicity.

Further information about the health and safety of our products can be found in the Customer Health and Safety Indicator GRI 416-1.

GRI 417-2 Incidents of non-compliance concerning product and service information and labelling

We continue to monitor and adapt to any changes in national and international chemical labelling legislation across the world and it is our policy that all products are supplied with a Material Safety Data Sheet (MSDS), which is a detailed informational document that describes the physical and chemical properties of the product.

During the year we were aware of 15 isolated incidents where labelling did not meet local requirements of voluntary codes. None of these isolated incidents resulted in fines, penalties or

warnings. We rectified these issues as soon as they were identified and at no time was health and safety compromised.

GRI 417-3 Incidents of non-compliance concerning marketing communications

We will continue to comply with regulations and voluntary codes relating to marketing communication and promotion and will continue to monitor and improve our processes and procedures in this area. During the year we were not aware of any incidents relating to non-compliance in this area.

GRI 419-1 Non-compliance with laws and regulations in the social and economic area

During the year we were not aware of any incidents relating to non-compliance in this area.

Management Approach: Quality Assurance

GRI 103-1 Explanation of the material topic and its boundary

Basis for materiality

Our customers rightly expect the same quality and standards from all our businesses and from each of our global manufacturing locations. We can be supplying individual multinational customers from multiple manufacturing sites, and as a global business we seek to standardise and unify the quality standards to which we operate in all parts of the world.

Contribution to value creation

High levels of quality are essential to achieve our business objectives. Quality, as a source of competitive advantage is a hallmark of our products and services. For us, high quality is not an added value; it is an essential basic requirement. Quality does not solely relate to the end products and services we provide but also relates to the way our employees do their job and the work processes they follow to produce products or services. Our work processes aim to be as efficient as possible and continually improving. Our employees constitute the most important resource for improving quality.

Boundary

Quality specifically relates to our manufacturing sites. For example, our sites which produce personal care ingredients have implemented EFCi GMP standards with 14 sites certified globally. Although

this is a European standard, we chose to implement it in America and Asia, exemplifying our uniform and consistent approach to quality.

Similarly, for our sites manufacturing health care excipients, we have EXCiPACT certification in all regions. Beyond these, our certification for other increasingly important and differentiating standards, including RSPO and Halal, extend to our sites in all regions.

For our recently acquired subsidiaries and our larger non-manufacturing sites, great progress has been made to implement ISO9001 with 100% of designated locations now having achieved certification.

Management Approach: Environmental Stewardship

GRI 103-1 Explanation of the material topic and its boundary

Basis for materiality

Our commitment to ethical practice and environmental sustainability is reflected in our conscientious approach to managing resources and the environment. Pursuing energy efficiency, refining operations and reducing emissions through behavioural and technological changes helps us reduce our impact on the environment.

Materials

By being close to our customers we understand and fulfil their needs, finding new ways to improve sustainable product performance and reduce environmental impacts. In 2016 we introduced the concept of intrinsic and extrinsic sustainability benefits. Intrinsic refers to attributes such as renewable raw material content, product purity and cradle-to-gate life cycle assessment. We assess the compliance of our new products with the 12 Principles of Green Chemistry and in 2019 our New and Protected Products (NPP) scored an average of 9.3 out of 12.

In 2019, 63% of the organic raw materials that we used were from renewable sources, a unique position amongst our peers in the speciality chemical manufacturing industry. The growth of crops from which many of our raw materials are derived, removes CO₂ from the atmosphere, resulting in low carbon footprints for many of our products. The extrinsic sustainability impacts of our products include the social, environmental and financial benefits that our products have in use. We are

working to quantify these benefits for some of our product application areas, calculating associated carbon savings.

Fourteen of our manufacturing sites are Roundtable on Sustainable Palm Oil (RSPO) Supply Chain Certified to handle sustainable Palm derivatives via physical supply chains. These certified sites handle more than 99% of our palm derivatives.

In 2018 we further strengthened our commitment by working with a third party, independent organisation to confirm transparency of our supply chains, collecting data from major suppliers, responsible for 80% of the volume of palm derivatives we use. We have identified the mills associated with this volume, including location and GPS coordinates, and ongoing work using these data will inform a risk assessment of the sourcing areas and ensure progress towards fully sustainable and deforestation-free sourcing by 2020.

Waste Management

Waste Management is highly regulated subject and is an important theme the chemical industry as a whole. For us, dealing with waste responsibly is not only a sustainability issue, it is also an operational issue as with increased waste come higher costs for the business. Process efficiency, which generates increased yields, contributes to our profitability via associated volume reductions in the waste stream.

Energy

Many chemical manufacturing processes are energy intensive and we wholeheartedly accept the implications for climate change arising from green-house gases (GHG) associated with energy generation. We have carefully measured operational emissions of gases implicated in climate change and for more than 15 years we have set targets for their reduction. Improving cost-efficiency and conserving resources by managing energy consumption is of utmost importance to us and we aim to minimize emissions and the greenhouse effects from energy use.

Increasingly demanding targets have been set for 2020 by our Group Executive Committee under the guidance of the SHEQ Steering Committee. To ensure actions can be taken to bring about change, all major SHE targets are set over a five-year time period.

Water

Responsible water management is a critical concern for the chemical industry as water is used in many production processes. We use water for a variety of purposes in the production of our ingredients which generates wastewater effluent.

Biodiversity

We are a beneficiary of ecosystems services which provide a variety of provisioning, regulatory and cultural services. Critical resources such as clean water, energy and flood protection benefit us as well as society at large and we take great care in monitoring and remediating any impact we have in order to protect these gifts from the natural environment.

Contribution to value creation

Waste Management

Our approach to waste management reduces the risk of environmental harm as well as the associated costs of waste management, adding value. Our efforts in this are linked to our sustainable strategy and demonstrate integrity throughout our global operations.

Energy

Energy reductions enable increases in profitability, enhancement in the reputation of our products and helps to protect natural resources. Further, our sustainably developed products enable our customers to benefit from significant energy reductions in their processes as well as carbon benefits 'in use' during the lifetime of the end application.

Water

Efficient water management not only reduces costs associated with wastewater treatment but protects this vital resource. By innovating in product design and manufacturing processes we aim to lead the way in efficient water use in a chemical industry setting at our operations across the globe, especially in those areas of water insecurity or stress.

Protection of Ecosystems

As responsible stewards of ecosystems and the services they provide, we contribute to the future availability of these essential resources to humanity and the natural world.

Boundary

We focus on the impacts of our own operations, which can be monitored and controlled directly. Increasingly, we are also taking account of impacts along our supply chains.

Waste Management

We ensure that as little waste as possible is generated during the development and manufacture of our products. Our sites are carefully monitored in order to gather data on which sites create the most waste over a defined period, the make-up and classification of the waste and which waste stream it belongs to e.g. recycled, landfill, hazardous.

Energy

We continuously make energy efficiency improvements our own operations and are increasingly influencing our supply chain to make reductions in energy use. Further, the in-use benefits of our products provide further energy reductions in our customers end applications.

Water

We use water in all our operations.

Read more: pages 27, 32 & 35 of our 2019 Sustainability Report

Biodiversity

A review of the locations of our 19 manufacturing sites did not identify any sites that are located in, or adjacent to protected areas or in areas of high biodiversity according to the Ramsar Convention on Wetlands and UNESCO World Heritage Sites.

As our manufacturing sites are mainly located in industrial areas, sensitive habitats are normally unimpacted.

We have identified that six of our manufacturing sites are close to some areas of high biodiversity, which are Hull (UK), Rawcliffe Bridge (UK), Campinas (Brazil), Mevisa (Spain), Cikarang (Indonesia) and Shiga (Japan). We are managing the environmental impact of these sites at a local level and setting targets to ensure that we minimise our impact on the environment by effectively managing the material business risk of Environmental Impact.

Further, we have helped to develop guidance for compliance with the Nagoya Protocol, an international agreement that aims to fairly share benefits that come from using genetic resources (GRs), the final objective being the sustainable use of biodiversity globally. We have been a constant voice in driving industry transformation to RSPO (Roundtable on Sustainable Palm Oil) certified physical supply chains, contributing to over 30 industry presentations, panel debates and media interviews on the issues around sustainable palm oil.

GRI 103-2 The management approach and its components

Responsibilities and resources

At Croda, the Group Sustainability Team and Executive Committee supports the various businesses with operational and strategic activities, by providing input on product development and guiding the wider group sustainability agenda. Whilst these functions set and monitor standards, operational responsibility resides with each site, which also nominates a responsible person for day-to-day operational SHEQ matters.

Goals and targets

By 2020, we aim to achieve significant improvements on six major parameters compared to a 2015 baseline:

- To reduce total Group energy intensity by 5% by the end of 2020
- To reduce total Group carbon intensity by 10% by the end of 2020
- To generate 27% of the Group's total energy requirements from non-fossil fuel sources by the end of 2020.
- To reduce total VOC emissions by 10% by the end of 2020.
- To reduce total Group water withdrawal by 10% by the end of 2020
- To reduce Group waste to landfill by 10% by the end of 2020.

Further components

We are committed to the International Council of Chemical Associations' Responsible Care® initiative. This initiative promotes shared responsibility between chemical producers, suppliers and customers and requires close, sustained dialogue and working relationships between all stakeholders.

This means sharing information up and down the value chain to identify and manage risks, and to ensure that chemicals are used and managed safely and responsibly throughout their lifecycle.

Waste Management

Our performance in waste management has continuously improved over recent years due to programmes rolled out globally and individual sites continuing efforts.

2019 saw a further reduction in our waste sent to landfill: we have now achieved a 17.8% reduction since 2015, exceeding our 2020 target of a 10% reduction. We recycle or reuse materials wherever possible in order to avoid sending waste to landfill and each category of waste is identified and analysed. Disposal methods must be documented in internal records.

In 2019, ten of our manufacturing sites sent zero waste to landfill, therefore reducing potential adverse consequences for the environment.

Energy

Since 2015, our overall energy use has increased by 14.9%, due to our continuing production expansions, in particular the commencement of biobased Ethylene Oxide (EO) production at Atlas Point. During this time, our energy intensity figure has fallen by 13%, a measure of our efforts to increase efficiency.

In 2019, 22.7% of the energy used came from non-fossil fuel sources. 2019 saw installation of further capacity for energy generation from landfill gas at Atlas Point, which will contribute towards further progress against this target.

In recognition for our focus on carbon management we recently won the “Bio-based Industry Story of the Year” award. In April, we were awarded the 2019 Bio-Based World News Innovation Award for ‘Bio-based Industry Story of the Year’ for the launch of our new 100% bio-based, 100% renewable range of non-ionic surfactants, our ECO range.

Water

The impact of our water use is very dependent on geographical location and so we are working to develop a water impact measure which will take into account the quantity of water withdrawal as well as level of water stress at source; water displacement effects and quality of discharged water. We have also developed an industry leading 2030 target to reflect this.

Read more: pages 27, 32 & 35 of our 2019 Sustainability Report

Protection of Ecosystems

In 2019, 63% of the raw materials we used were from renewable sources, a unique position amongst our peers in the speciality chemical manufacturing industry. The growth of crops from which many of our raw materials are derived, removes CO₂ from the atmosphere, resulting in low carbon footprints for many of our products. The extrinsic sustainability impacts of our products include the social, environmental and financial benefits that our products have in use. We are working to quantify these benefits for some of our product application areas, calculating associated carbon savings.

Fourteen of our manufacturing sites are Roundtable on Sustainable Palm Oil (RSPO) Supply Chain Certified to handle sustainable Palm derivatives via physical supply chains. These certified sites handle more than 99% of our palm derivatives.

In 2018 we further strengthened our commitment by working with a third party, independent organisation to confirm transparency of our supply chains, collecting data from major suppliers, responsible for 80% of the volume of palm derivatives we use. We have identified the mills associated with this volume, including location and GPS coordinates, and ongoing work using these data will inform a risk assessment of the sourcing areas and ensure progress towards fully sustainable and deforestation-free sourcing by 2020.

GRI 103-3 Evaluation of the management approach and measurement

Evaluation and outcome

At Croda, our Group Sustainability Team exchanges knowledge between stakeholders within the business to reduce environmental impacts. In addition, we have formed an Executive Sustainability Steering Committee and a Product Sustainability Subgroup to identify bottlenecks and generate new ideas to achieve our newly launched 2030 targets. Participants in these groups include representatives from around the business including the VP Customer Alliances, Corporate Sustainability, the Head of Global Business Development, the Research and Technology Manager and the Head of Global Marketing amongst others, who are the main stakeholders in implementing strategies at the product level.

Indicators

We collect data on a quarterly basis to monitor our progress against targets and these data are used as a basis to improve efficiency and performance. Our Intalex SHEQ reporting tool is used to track the progress of projects related to environmental performance and capture any additional activities in this area.

Waste Management

Indicators monitored include the weight of hazardous and non-hazardous waste by disposal method as well as the number and volume of significant spills.

Energy

We are ahead of target to achieve our five-year energy intensity plan, which is calculated by dividing energy consumption by 'value added' (operating profit before depreciation and employee costs). By the end of 2019 we had achieved a 13% reduction compared to 2015.

Water

In 2015, we set a target to reduce total Group water withdrawal by 10% by then end of 2020, using 2015 as the baseline. In 2019, we recorded a 17.4% reduction in water consumption, compared to 2015.

Two manufacturing sites have contributed significantly to this achievement, one of which is in a water stressed region: Mevisa site in Spain has reduced its water usage by 64.4% compared to 2015 and Ditton site in the UK has reduced its water usage by 63.5% compared to 2015

We were also awarded a rating of B by CDP in 2019 for our performance on water reporting and conservation, improving on our strong 2018 position. We monitor several water-related indicators, including total volume withdrawn by sources, water consumption related to production and discharge volumes to various water sources.

Protection of Ecosystems

We track parameters including the number of manufacturing sites located in biologically or water stress sensitive areas.

We also participate in end to end supply chain engagement with palm oil producers to tackle the issue of deforestation and to ensure transparency and sustainable practices.

We also develop ingredients using sources derived from Brazilian biodiversity and the greatest challenge of regulatory compliance in biodiversity is that each country defines the mechanisms of regulation. We have a responsibility to assure our customers of the compliance of our products and our Product Safety and Regulatory and Affairs (PSRA) department has registered more than 70 products with the Ministry of the Environment. This enables our customers to register their final products using our ingredients from these sources.

GRI 301-1 Materials used by weight or volume

Partial Reporting

The foundation of our business rests upon natural ingredients, with a large percentage of our raw materials originating from organic, renewable sources. In 2019, 63% of our raw materials came from natural, renewable sources and biotechnology. The growth of crops from which many of our raw materials are derived, removes CO₂ from the atmosphere, resulting in low carbon footprints for many of our products.

% Raw materials	2017	2018	2019
Renewable materials	62	65	63
Non-renewable materials	38	35	37
Total	100	100	100

The above data covers all external global spend on raw materials and process aids and is readily extracted from our SAP system and characterised as being renewable or non-renewable. We do not report product tonnage because it is commercially sensitive. The data also does not include materials for packaging purposes as we currently do not have systems in place to record this data.

GRI 303-3 Water withdrawal

Total volume of water withdrawn by source:

Water withdrawal by source (m ³)	2015	2016	2017	2018	2019
Total surface water	2,657,839	2,545,627	2,605,651	2,526,381	2,127,220
Total groundwater	4,072,498	3,617,661	3,562,101	3,024,935	2,716,758
Total municipal process water	115,918	112,728	164,143	164,538	133,971
Total municipal mains water	1,532,273	1,301,174	1,679,435	2,100,771	1,938,982
Total water	8,378,528	7,577,190	8,011,330	7,816,625	6,916,931

Data reported by manufacturing sites and non-manufacturing sites on a quarterly basis using invoiced data from utility companies and direct reading of meters.

GRI 303-5 Water consumption

Water consumption (ML)	2015	2016	2017	2018	2019
Total surface water	26,578.39	25,456.27	26,056.51	25,263.81	21,272.2
Total groundwater	40,724.98	36,176.61	35,621.01	30,249.25	27,167.58
Total municipal process water	1,159.18	1,127.28	1,641.43	1,645.38	1,339.71
Total municipal mains water	15,322.73	13,011.74	16,794.35	21,007.71	19,389.82
Total water	83,785.28	75,771.90	80,113.3	78,166.25	69,169.31

GRI 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas

A review of the locations of our 19 manufacturing sites did not identify any sites that are located in, or adjacent to protected areas, or in areas of high biodiversity according to the Ramsar Convention on Wetlands and UNESCO World Heritage Sites.

We have identified that six of our manufacturing sites are close to some areas of high biodiversity, which are Hull (UK), Rawcliffe Bridge (UK), Campinas (Brazil), Mevisa (Spain), Cikarang (Indonesia) and Shiga (Japan). We are managing the environmental impact of these sites at a local level and

setting targets to ensure that we minimise our impact on the environment by effectively managing the material business risk of Environmental Impact.

Our operation at Hull is near the Humber estuary, which is designated as a Special Area of Conservation (SAC) and a Special Protection Area (SPA), as well as being designated as a UNESCO Ramsar Wetland. The River Hull next to the site flows to the Humber estuary and we have a local team in place to continually monitor our effluent discharge. We have also instigated a number of projects on the site to encourage biodiversity including planting indigenous trees on the boundary of the site to support local wildlife and re-establishing a marsh and pond area on site to support local biodiversity. A biodiversity study has also been conducted at the site by an independent expert and we are in the process of implementing the recommendations.

Our operation at Shiga is near to Biwa-ko, the largest freshwater lake in Japan, which is designated as a UNESCO Ramsar Wetland. The river Uryu is next to the site and leads to Biwa-ko, but as at our Hull site, we have a local team in place that continually monitors our water usage and effluent discharge. Our management teams and SHE experts are working hard at Shiga to reduce our water usage, which will reduce our local environmental impact. A team from the site also volunteers every year to help manage the river weeds along the Uryu to support local biodiversity.

Over recent years, our Mevisa manufacturing site in Spain has gone through major expansion, requiring the site's utilities to undergo several upgrades. These upgrades have included an expanded effluent treatment plant to increase the volume of water that can be treated daily, whilst maintaining a COD discharge level well below the legal limit. They have invested in improved cooling and refrigeration systems to increase the recirculation of cooling water from approximately 55% to approximately 75%. This has reduced water extraction by the site from the stressed local aquifer.

GRI 304-2 Significant impacts of activities, products, and services on biodiversity

We understand that our operations may have an impact upon local biodiversity, and we take the stewardship of our own land very seriously. Therefore, we will continue to review our impact on land, water and air.

For more than 15 years we have carefully monitored our environmental impact and set targets to reduce this at all our manufacturing sites. Reductions in energy and water usage, emissions to air

and water and waste production, which has a continuing positive effect in reducing our impact on biodiversity in the areas in which we operate.

Our emissions and waste production have been carefully monitored by our Safety, Health and Environment (SHE) group to ensure that we reduce our impact wherever possible and are responsible in the disposal of liquid effluent or solid waste. In 2019, our sites were >94% compliant with liquid effluent discharge consents. We also reduced our waste to landfill by 17.7% in 2019 compared to 2015.

In 2014, we completed pilot biodiversity surveys at two of our operations. At our Cowick Hall headquarters in the UK we have 40 hectares of varied use land, which is already diverse in the valuable habitats and species it contains. However, we are determined to achieve the next level in terms of our stewardship of the natural environment. To this end, in 2017 we formed the Cowick Biodiversity Committee who are embarking on a long-term project to enhance the valuable habitats we have and to restore those habitats which have been lost to us over time and which are absent in the wider geographical area. We aim to provide valuable refuge and focal points for our native species, thus contributing to ecosystem resilience and safeguarding the services they provide. We will put into place an action plan to enhance and protect biodiversity at the site, based on recommendations from our biodiversity survey and working with local experts.

Our new product development teams are committed to making our products as environmentally friendly as reasonably practicable and each year we measure and report new launches against the 12 Principles of Green Chemistry. A number of these principles relate to potential environmental effects that could harm biodiversity including, toxicity, hazardous by-products, persistence and chemical accidents. We aim to reduce the use of environmentally harmful chemicals by finding greener, safer alternatives and always take precautions with any chemicals that could pose a risk to the environment, often going beyond the standards required by legislation. In 2019, the average score for our new product launches was 9.3.

There are several key areas where we have influenced our suppliers and customers to provide sustainably sourced raw materials to ensure the preservation of biodiversity.

Further details on how we are tackling the issues of Sustainable Product Innovation can be found on page 24 of our 2019 Sustainability Report

Case Study – Sustainable Palm Oil

Our preference is in using bio-based feedstocks that deliver a lower carbon footprint than fossil-based alternatives. These natural feedstocks are sourced from crops that are well established and widely grown. However, the potential environmental issues of deforestation and loss of biodiversity surrounding palm oil production make end-to-end engagement in supply chains vital to ensure transparency and sustainable practices throughout. RSPO-certified palm is recognised to deliver a 35% lower global warming impact than non-certified. *

We fully support the RSPO, and all our relevant manufacturing sites processing over 99% of our global palm derivative volumes are RSPO Supply Chain Certified. In 2019 we also became founder members of the Action for Sustainable Derivatives (ASD).

* Jannick Schmidt and Michele De Rosa, the LCA consultants, Denmark.

“The home and personal care industry has made enormous progress in supporting sustainable palm and extending positive influence beyond its own supply chains. The ASD is a perfect example of businesses coming together to complete the industry transformation to sustainable palm and partnering to meet the United Nations Sustainable Development Goals.”

Chris Sayner

Vice President Customer Alliances, Corporate Sustainability

GRI 306-1 Water discharge by quality and destination

In 2015 we set a target to reduce total Group water withdrawal by 10%, based on 2015, by the end of 2020. We are on track to exceed this target with our total water consumption in 2019 being 17.4% lower than the baseline year of 2015.

Our compliance with effluent discharge consents for 2019 was 94.4 down 5.4% based on our 2015 figures. There remain four sites that have occasional issues with wastewater, usually down to external factors such as weather. Therefore, in 2016 we took the decision not to continue with effluent discharge compliance as a public target. Internal monitoring continues to maintain tight control of our effluent treatment plants.

Total volume of planned and unplanned discharges (m ³):	2015	2016	2017	2018	2019
Effluent discharged directly to river	6,290,125	5,996,557	5,797,942	5,155,901	4,683,355
Effluent discharged to local biological treatment works	1,155,547	1,208,714	1,279,423	1,446,328	1,276,071
Total discharged	7,445,672	7,205,271	7,077,365	6,602,229	5,959,426

Data reported quarterly by our 19 manufacturing sites and is taken from utility company invoices or from direct reading. Compliance of samples analysed, and results are compared against consent limits issued by local regulators for those manufacturing sites which have a permit to discharge.

GRI 307-1 Non-compliance with environmental laws and regulations

During 2019 there were no incidents of non-compliance with environmental laws and regulations.

Management Approach: Process Safety and Health, Safety & Wellbeing

GRI 103-1 Explanation of the material topic and its boundary

Basis for materiality

As a global employer, we have committed to promoting a workplace culture of health and wellbeing. Process safety is a top priority for us and ensures manufacturing operations and the health and safety of our employees meets reputational and legal requirements. Failure to meet health, safety and wellbeing requirements can have an adverse effect on productivity, employee morale, labour and operational costs. Further, our brand image can be adversely affected by negative incidents involving health, safety and wellbeing.

Contribution to value creation

We add value by minimising the risk of health, safety, and well-being incidents and therefore potential liabilities concerning both its people and the wider environment. We also accept that the mental and physical wellbeing of staff is a precondition for strong performance and retention of talent.

Boundary

Health, safety, and well-being are crucial for all our business areas, including management-controlled joint ventures including our contractors as well as our employees.

GRI 103-2 The management approach and its components

Responsibilities and resources

Our Group Safety, Health, Environment and Quality (GSHEQ) specialists operate in all regions and countries and are responsible for managing occupational health and safety. The wellbeing of our employees is supported by local, regional and global HR (Human Resources) teams and initiatives in support of this occur regularly around the globe. The reporting of incidents is actively encouraged across all areas of the business and is the responsibility of the SHE Manager in each of our operations. All significant incidents and near misses are investigated by trained SHE personnel across the Group, with the ultimate management of such reviews resting with our Group Executive Committee, which receive a quarterly report through the SHE Steering Committee. In addition to this, our risk management procedure ensures that all of our regional boards review potential health and safety risks at least twice per year.

Read more: [2019 Sustainability Report](#)

Goals and targets

We are focused on a target of zero work related accidents and a desire to entrench health & safety into the day-to-day life of all operations. Achieving the target of Total Recordable Injury Rate (TRIR) in the top quartile of chemical manufacturing companies with more than 1,000 employees also demonstrates our dedication to our people and the difference we make.

Read more: [2019 Sustainability Report](#)

Further components

Read more: [GRI 403-1 Occupational health and safety management system](#)

Read more: [GRI 403-2 Hazard identification, risk assessment, and incident investigation](#)

GRI 103-3 Evaluation of the management approach and measurement

Evaluation and outcome

In order to protect our employees from occupational hazards each of our site locations undergoes systematic assessment related to temperature, humidity, illumination, sound, air quality and ergonomics. Minimum working requirements are well defined for each of these parameters and workplaces are redesigned to these requirements when they are not met. We regularly examine the health of our employees at our manufacturing sites, with some locations requiring extensive health checks in order to ensure the safety of all employees on site. We employ medical health professionals to perform health checks and anonymous reporting of findings to Group SHE. This information is used to inform mandatory workplace risk assessments and dictates whether further personal health monitoring is required. We maintain medical confidentiality at all times.

Indicators

From 2016 we have adopted the American Occupational Safety and Health Administration (OSHA) standard for workplace injury reporting and have re-based our historical data to this standard. We are continuing to focus on Lost Time Injuries (LTI) – those injuries which result in an absence from work of 1 day or more, and we track the LTI rate, measured in units of ‘Injuries per 200,000 hours worked’ for: a) Croda employees, b) Contractors working on Croda premises and c) Combined employees plus contractors.

Year	Employee LTI rate	Contractor LTI rate	Combined LTI rate
2015	0.48	0.68	0.52
2016	0.42	0.42	0.42
2017	0.42	0.28	0.40
2018	0.66	0.83	0.70
2019	0.22	0.16	0.22

Safety Deviations and all Process Safety Events are continuously monitored at respective sites and quarterly at a global level. When we detect a pattern in Process Safety Events that must be corrected, the responsible site is contacted and instructed to take corrective actions.

GRI 403-1 Occupational health and safety management system

To ensure operational health and safety, we have several policies and an overarching Group SHE Manual in place which cover topics such as planning, implementation and operation, checking, management review and management of change. These policies highlight our commitment to social responsibility and workplace rights concerning our global workforce.

Numerous additional guidelines cover a large number of safety and security issues, such as fire and explosion precautions, the handling of hazardous substances, and the identification of risks associated with chemical production. Further, we have adopted the Precautionary Principle when dealing with risks where scientific understanding is incomplete. We have recently transitioned from OSHAS 18001 certification to ISO4500. A gap analysis was conducted to identify improvement potential for our occupational health and safety management system, actions were defined and implemented, and training rolled out across the group. The new standard will apply to all employees and contractors where we control the workplace. For workplaces that we do not control, the management system only applies to our employees.

GRI 403-2 Hazard identification, risk assessment, and incident investigation

We have established, implemented and maintain procedures to monitor and measure SHE performance on a regular basis, including the key characteristics of its operations that can have a significant environmental impact. These procedures provide both qualitative and quantitative measures, appropriate to the needs of the organization; monitoring of the extent to which the organization's SHE objectives and targets are met; monitoring the effectiveness of controls (for health and the environment as well as for safety); proactive measures of performance that monitor conformance with the SHE programme(s), controls and operational criteria; reactive measures of performance that monitor ill health, incidents (including accidents, near-misses, etc.), and other historical evidence of deficient SHE performance; recording of data and results of monitoring and measurement sufficient to facilitate subsequent corrective action and preventive action analysis.

Further, our internal guidance, activities and audits from local SHE departments helps to avoid work-related injuries and illness and regulates the identification of health hazards for the workplace.

Read more: [Group SHE manual](#)

403-3 Occupational health services

At Croda, we promote health and well-being globally but responsibility rests with local SHE teams who provide programmes tailored to each site. We go further than legal requirements to encompass the total wellbeing of our people and we are continuing to invest in wellbeing initiatives. First and foremost, this is the right thing to do, but it also makes good business sense; when employees and contractors are safe and healthy, absence is reduced and potential loss of reputation due to serious breaches in policy or regulation are eliminated.

We also offer our employees free counselling by external specialists in the event of stress, fatigue, personal crisis, substance abuse, or other challenging circumstances. Additionally, flexible working arrangements can be made and apply to both work-related stress management and unrelated, extenuating circumstances. We perform assessments of health habits and special health needs of all employees and local teams update their programmes based on any findings.

GRI 403-4 Worker participation, consultation, and communication on occupational health and safety

The reporting of incidents is actively encouraged across all areas of the business and is the responsibility of the SHE Manager in each of our operations. All significant incidents and near misses are investigated by SHE officers across the group, with the ultimate management of such reviews resting with our Group Executive Committee, which receive a quarterly report through the SHE Steering Committee. In addition to this, our risk management procedure ensures that all of our regional boards review potential health and safety risks at least twice per year.

Health and safety committees operate at each of our manufacturing sites and offices with representation from all employee levels on each site. Formal consultation is a requirement laid down in our Group Safety Health & Environment Manual, and there is a requirement for regular meetings to take place at each of our manufacturing sites and offices. Each of our operations is required to refresh its safety awareness and behavioural safety programmes regularly.

As such, all 4,580 employees worldwide should be represented on a joint management and labour health and safety committee.

403-5 Worker training on occupational health and safety

All of our employees are required to complete a minimum of three mandatory health and safety training courses delivered via our online training and performance management platform, My Croda. However, due to current reporting restrictions we are unable to report precise figures. Though we aim to do this in future GRI reports.

403-6 Promotion of worker health

We believe that a good work-life balance contributes notably to the well-being of our employees and we seek to foster a shared culture of health and well-being. To support this effort, we offer a range of flexible working arrangements, such as working from home, agile-working, part-time work, mobile working and flexitime. Additional benefits intended to improve the work-life balance of employees include free healthy meals, facilities for the provision of fitness activities and access to a registered nurse practitioner.

Read more: pages 29 & 34 of our 2019 Sustainability Report

Management Approach: Responsible Business

GRI 103-1 Explanation of the material topic and its boundary

Basis for materiality

Our overall commitment is to uphold the principles of socially responsible business practices and respect the interests of everyone affected by its activities and actions, including our employees, customers, suppliers, shareholders and the general community at large.

It is our policy to conduct our business at all times and throughout the world with honesty and integrity and we operate a range of policies covering all areas of our business. The company believes that all its stakeholders wish to be associated with an ethical organisation which publicises and upholds high standards in all that it does.

Contribution to value creation

Our commitment to operating our business and conducting our relationships with third parties in a responsible, transparent and ethical way is embedded in our culture and applies across the entire Croda family this adds value as we are viewed as a reputable business that can be trusted.

Boundary

It is our policy to conduct our business at all times and throughout the world with honesty and integrity and we operate a range of policies covering all areas of our business. The company believes that all its stakeholders wish to be associated with an ethical organisation which publicises and upholds high standards in all that it does.

We seek to meet and extend the requirements of the UK Bribery Act worldwide, and to this end we have a global Anti-Bribery and Corruption Programme that is overseen by our Group Ethics Committee, which consists of members of our Executive team. Reporting regularly to the Board, the Committee promotes the importance of ethics and compliance throughout our business and is implemented through our global ethics network of colleagues from our finance and legal operations.

GRI 103-2 The management approach and its components

Responsibilities and resources

Many tools and mechanisms are in place to support the Programme, including online gift registers, whistleblowing hotlines, which have recently been expanded to include external third parties, and an anti-bribery and corruption near miss reporting tool. Online training is further complemented with face to face workshops for managers and those employees whose roles might expose them to higher ethical risks. In addition, our Anti-bribery and Corruption programme considers the compliance risk associated with every third-party vendor we engage. Our ethics network also meets with all third parties who interact with government agencies on our behalf, in order to ensure that they understand, and have policies in place to meet, our compliance requirements.

GRI 103-3 Evaluation of the management approach and measurement

Evaluation and outcome

Our ethical agenda and commitment are supported by a planned programme of colleague communications throughout the year, with regional and global management also setting the tone as they visit our locations globally. Our annual internal audit programme has a dedicated governance section, with certain operations considered higher risk also benefitting from a peer-review by a member of the ethics network.

Read more: [Code of Ethics](#)

GENERAL DISCLOSURES

Organisational Profile

GRI 102-1 Name of the organisation

Croda International Plc.

GRI 102-2 Activities, brands, products and services

We are the name behind the high-performance ingredients and technologies in some of the biggest, most successful brands in the world; creating, making and selling speciality chemicals that are relied on by industries and consumers everywhere

We have four market sectors: Personal Care, Life Sciences, Performance Technologies and Industrial Chemicals. Within these sectors, we have nine business areas, each working in partnership with our customers to design ingredients that are manufactured globally and sold directly to our customers.

Personal Care

Personal Care

Markets

Focusing on active ingredients and ingredients that enhance the performance of skin, hair, sun protection and colour cosmetic products

Products

These include inorganic UV absorbers, lanolin, emollients, polymers, proteins, surfactants and skin care actives. [Read more at www.croda.com](http://www.croda.com)

Life Sciences

Crop Protection

Markets:

We provide inert ingredients and adjuvants for the full spectrum of agrochemical applications.

Products:

These include polymeric surfactants, dispersants, wetting agents, emulsifiers, stabilisers, adjuvants and seed coating binders. [Read more at www.croda.com](http://www.croda.com)

Health Care

Markets:

Our high purity ingredients are used in the pharmaceutical, dermatological, nutraceutical, functional food and animal health markets.

Products:

These include concentrated omega fatty acids, ultra-pure medical grade lanolin, Super Refined™ excipients and a wide range of surfactants, solubilisers, emulsifiers and fatty acid esters. [Read more at www.croda.com](http://www.croda.com)

Seed Enhancement

Markets: Protecting and stimulating seeds using processes such as seed priming, upgrading, disinfection, pelleting, encrusting and film coating. Incotec, a division of Croda, has the ability and technology to improve and enhance the quality of seeds and to apply seed treatment products.

Products:

These include film coat liquids and coating products. [Read more at www.croda.com](http://www.croda.com)

Performance Technologies

Smart Materials

Markets:

We supply speciality additives for polymer applications such as slip, anti-block, torque release and anti-scratch. We also innovate for niche segments within adhesives and sealants, paints and coatings, composites, engineering plastics, foams and elastomers.

Products:

This includes a wide range of naturally derived oleochemicals and speciality surfactants. [Read more at www.croda.com](http://www.croda.com)

Energy Technologies

Markets: We supply marine, wind turbine and environmentally acceptable lubricants, as well as products for use in oil & gas production, e.g. flow assurance.

Products:

These include friction modifiers, emulsifiers, demulsifiers and other speciality surfactants. [Read more at www.croda.com](http://www.croda.com)

Home Care and Water Treatment

Markets:

We supply ingredients for laundry, household, industrial and institutional cleaning applications, as well as for wipes, tissues, nappies and hygiene articles. We also deliver innovative surfactants for use in the manufacture of water-soluble polymers as well as other chemistries for the water treatment industry.

Products:

These include proteins and their derivatives, softeners, surfactants, solvents, emulsifiers, solubilisers, hydrotropes, tissue lotions, botanical extracts, fatty acids and glycerine. Our broad portfolio also includes defoamers, inverters, corrosion inhibitors, dispersants and lubricants. [Read more at www.croda.com](http://www.croda.com)

Industrial Chemicals

Industrial Chemicals

Markets:

We supply ingredients and additives for use in a range of market applications including rubber, candles, textiles, leather and surfactants.

Products:

These include the full range of our products; from base oleochemical fatty acids and glycerine to esters, polymeric surfactants and amides. [Read more at www.croda.com](http://www.croda.com)

As a business to business organisation we strive to maintain an awareness and conformance, where appropriate, to national and local laws and voluntary codes or guidelines from entities such as the Food and Drug Administration (FDA), the European Food Safety Authority (EFSA), the European Commission, Cosmetics Europe, United States Environmental Protection Agency and Personal Care Products Council (formerly CTFA).

We were a signatory to the chemical industry's voluntary agreement on the accelerated phase out of the supply and use of products for applications restricted under the EU Marketing and Use Directive, which is now incorporated into our activities under the legislation of Registration, Evaluation, Authorisation and Restriction of Chemical substances (REACH). We therefore focus our sales and marketing on offering alternatives with just small amounts being imported for merchanting purposes into allowed uses. For example, manufacturing of alkyl phenol ethoxylates in our European operations is restricted and we are actively developing and promoting alternatives to alkyl phenol ethoxylates in other regions. As a result, many customers have already moved to different products.

GRI 102-3 Location of headquarters

Our corporate headquarters are located at Cowick Hall in East Yorkshire, England.

GRI 102-4 Location of operations

We are a global organisation with 4,580 employees across 38 countries*. The strength of our research, development and manufacturing capabilities is underpinned by our global network of sales offices and technical/customer support teams.

This report covers the sustainability performance of Croda International Plc for the period 1st January 2019 to 31st December 2019. The scope of this report is all wholly owned operations, plus those

operations where we have significant management influence due to a majority shareholding. Unless otherwise stated, data provided throughout this report is for continuing operations.

**Countries of Operation*

Western Europe	Eastern Europe, Middle East & Africa	North America	Latin America	Asia Pacific
Belgium	Czech Republic	Canada	Argentina	Australia
Denmark	Hungary	USA^^	Brazil^	China^
France^^^	Poland		Chile	Hong Kong
Finland	Russia		Colombia	India^
Germany	South Africa		Mexico	Indonesia^
Italy^	United Arab Emirates		Peru	Japan^
The Netherlands^^	Iran			Singapore^
Spain^	Malaysia			South Korea
Sweden				Taiwan
Turkey				Thailand
United Kingdom†^^^^				Vietnam

Key: † Head Office

^ Manufacturing site

*As at 31 December 2019

GRI 102-5 Ownership and legal form

Croda International Plc. is a Public Limited Company; we have been listed on the London Stock Exchange since 1964.

Our ownership structure and major shareholders can be found in our Annual Report.

GRI 102-6 Markets served

The markets served by our business can be found under disclosure GRI 102-2. The revenue generated during 2019, separated by region is detailed below:

2019 generated revenue (£m)	
Europe, Middle East & Africa	558.9
North America	367.4
Asia	307.6
Latin America	143.8

Further, the breakdown of revenue and operating profit during 2019, separated by market sector, was as follows:

Market sector breakdown	Revenue (£m)	Profit (£m)
Personal Care	485.2	162.1
Life Sciences	350.5	107.1
Performance Technologies	430.2	69.4
Industrial Chemicals	111.8	1.1

GRI 102-7 Scale of the organisation

As recorded on 31st December 2019, the Group employs 4,850 employees worldwide, with 72 operations including 19 manufacturing sites in 38 countries. Our revenue for continuing operations was £1,377.7m.

2019 net sales by market sector	Revenue (%)
Personal Care	35.2
Life Sciences	25.4
Performance Technologies	31.2
Industrial Chemicals	8.1

Net sales revenue by geographic market during 2019:

Geographic market	Sales (%)
Europe, Middle East & Africa	41
North America	26.7
Asia	22.3
Latin America	10.4

As of 31 December 2019, total debt was £547.7 and £868.6m equity.

These figures apply to Croda International Plc. in its entirety.

Further information can be found on in our 2019 Annual Report.

GRI 102-8 Information on employees and other workers

Like all successful businesses, we recognise that our future depends on our ability to attract and retain individuals who are passionate about personal and business growth and want to make a significant contribution to the future of our business.

2019	Full Time	Part Time	Permanent	Temporary
Male (%)	65.32	1.24	65.10	1.46
Female (%)	27.92	65.50	32.33	1.09

2019	Western Europe	EEMEA*	Asia Pacific	North America	Latin America
Male (%)	35.08	0.69	17.59	9.69	3.49
Female (%)	18.95	1.68	5.80	3.68	3.29

Most of our business is completed by employees of the business, who are therefore not self-employed or contractors. Our employee numbers do not fluctuate significantly throughout the year due to seasonal variations. For those employees on a temporary contract, many within this group are undergraduate interns or apprentices to whom permanent employment is normally offered upon successful completion of a training period.

* Eastern Europe, Middle East and Africa

GRI 102-9 Supply chain

There is a total of 19 manufacturing sites located in Europe, North America, South America and Asia. Each site/region has its own procurement organisation responsible for all aspects of procurement associated with acquiring all goods and services. Specific responsibilities include identification of requirements, specifications, assessment of risks, management of tendering processes, ordering, contract award and management and monitoring of suppliers' performance. There are sales offices and warehousing in 38 different countries. Sales offices source materials from the worldwide network of manufacturing sites for customers in their local markets. The global supply chain is supported by a common SAP-based ERP process.

GRI 102-10 Significant changes to the organisation and its supply chain

On 16 July 2019, the Group acquired Rewitec® GmbH, a technology-based business specialising in improving the efficiency and longevity of wind turbines and moving machinery through the application of their patented additives. Based in Germany, Rewitec's innovations offer sustainability benefits by extending the lifetime and improving the performance of gearboxes, bearings and engines within wind turbine, automotive and marine industries worldwide. The acquisition will form part of our Energy Technologies business (Performance Technologies sector), leveraging our dedicated global sales network to accelerate Rewitec's growth potential.

There have been no substantive changes in location of and relationships with suppliers in 2019. However, European chemicals raw material production is continuing to migrate to other regions offering the twin benefits of lower cost production allied with fast-growing consumer markets. In order to uphold the security of supply of raw materials, European sites increasingly must look further afield for reliable sources of chemical feedstocks.

GRI 102-11 Precautionary principle or approach

Our risk management programme is owned and overseen by the Board, which has overall responsibility for ensuring that our risks are aligned with our goals and strategic objectives. The Audit Committee assists the Board in monitoring the effectiveness of the risk management and internal control policies, procedures and systems. Each of our more than 50 strategic and operational risks are owned by an Executive member and are categorised into 17 subcategories enabling transparent reporting at all levels.

The Risk Framework, embedded in the Digital Hive, is used to drive an integrated, three lines of defence management approach through the culture of the organisation, across sectors, operations, regions and functions. Our first line of defence, our employees, have a responsibility to manage day-to-day risk in their own areas guided by Group policies, procedures and control frameworks. It is the role of local management and ultimately the Executive to ensure that risks are managed, maintained, reviewed and actioned according to the framework. The second line of defence, the Risk Management Committee, meets quarterly to review, challenge and monitor current and emerging risks using a bottom-up and top-down approach.

Our global reporting dashboard enables transparent comparison of risks across regions, operations and sectors. The third line of defence is assurance. This is provided through internal control audits and deep dive risk assurance audits, in addition to reports from external assurance providers, the results of which are reviewed by three Executive Committees and monitored and challenged by the Audit Committee and the Board.

In July 2019, a cross functional team reviewed and refreshed our statements of risk appetite. The team developed risk appetite statements at subcategory level with a view to making risk appetite more transparent to risk managers and owners and to provide guidance when considering risk incidents. The statements were reviewed by the Board and the Risk Management Committee and have been embedded into our risk reporting dashboard.

Read more: pages 38 – 43 2019 Annual Report

GRI 102-12 External initiatives

Our proactive approach to working with many external organisations, both inside and outside of our industry, saw us contributing to around 220 different bodies during 2019. Many of these relate to product, personal and process safety and regulatory affairs.

Charters

Responsible Care®

We are signatories to Responsible Care®, which is the chemical industry's global voluntary initiative through which companies, through their national associations, work together to continuously improve their health, safety and environmental performance and to communicate with stakeholders about their products and processes. The Responsible Care® ethic helps industries to operate safely, profitably and with due care for future generations. It was commended by UNEP as making a significant contribution to sustainable development at the World Summit on Sustainable Development in 2002.



Round Table on Sustainable Palm Oil (RSPO)

We have been active members of the RSPO since it was established in 2004 and sit on the derivatives working group. The mission of the RSPO is to advance the production, procurement and use of sustainable oil palm products through the development, implementation and verification of credible global standards and the engagement of stakeholders along the supply chain. We are members of the RSPO, which collectively brings oil palm growers, oil processors, food companies, retailers, NGOs and investors to work together towards a global supply of palm oil that is produced in a socially and environmentally responsible way. The RSPO promotes palm oil production practices that help reduce deforestation, preserve biodiversity, and respect the livelihoods of rural communities in oil-producing countries. It ensures that no new primary forest or other high conservation value areas are sacrificed for palm oil plantations, that plantations apply accepted best practices and that the basic rights and living conditions of millions of plantation workers, smallholders and indigenous people are fully respected.

12 Principles of Green Chemistry

The 12 Principles of Green Chemistry were developed in 1991 by Paul Anastas and John. C. Warner. The aim of the principles is to minimise the environmental impact of chemical products and reduce the environmental and social risks of these products. We have been using these principles since 2010 to ensure that our new product development follows a more sustainable and environmentally friendly path.

GRI 102-13 Memberships of associations

We are a signatory to the Responsible Care® Initiative of the chemical industry trade associations in the UK, USA and Singapore, and more recently have endorsed the global charter agreed amongst the members of the International Council of Chemical Associations. We have also demonstrated our commitment to sustainable development by endorsing the principles developed in cooperation with stakeholders and member companies of the Chemical Industries Association.

In addition to this, we are also members of over 220 industry associations.

Strategy

GRI 102-14 Statement from senior decision-maker

Chief Executive's Statement

In times of increasing environmental, social and economic uncertainty, we are determined to continue playing our part in meeting the global challenges and to make a positive impact. The United Nations Sustainable Development Goals (SDGs) are beginning to focus global efforts on positive change; for us these SDGs have reinforced our drive to provide solutions that support sustainable development as a moral and business imperative. We shall continue to thrive, not by simply improving our own economic, social and environmental performance but also actively creating positive change.

Smart Science to Improve Lives

Continuing to deliver strong and consistent financial results, together with strong and consistent non-financial results, reflects our vision, mission and values. This is now encompassed in our new purpose statement, 'smart science to improve lives'. Since the very beginning of Croda in 1925, we have understood the important part that science plays in everyday life. 94 years later, our unrivalled ability to innovate through 'smart science' enables us to meet our customers' and their consumers' needs. Our products have always added financial value and we increasingly recognise the positive environmental and social impact that they all have; we work to 'improve lives'.

Sustainable Solutions

During 2019, we increased focus on our contribution to the SDGs. I have been delighted with the breadth and depth of the work that has been undertaken throughout our businesses to identify many areas in which we are making significant positive contributions. Most satisfying is that these contributions are coming from across all our functions, not only through the application of our products, but also in the sourcing of raw materials, innovative product design, our flexible operations, and our acquisition of exciting new sustainable technologies. The measurable output of our innovation is increasing economic and shareholder value, but we are intent on further measuring our positive impact and setting ambitious targets.

Driving Innovation

Our innovation goes beyond delivering more value and benefit from ingredients with a lower environmental footprint. Today, more than ever before, we are innovating up and down the value chains, creating new ingredients in our research centres and in collaboration with our customers, suppliers, open innovation and smart partners, we are identifying and commercialising unique opportunities that add value to our customers' products, satisfying the needs of their consumers and improving lives.

Delivering Growth

We shall continue to decouple our growth and increased shareholder value from our impact on the environment, and further futureproof our business with our capital light, carbon light, technology and intellectual property rich acquisition strategy. Following six years of collaboration developing specific applications in personal care and crop care sectors, in January 2018 we acquired Nautilus, a

CRODA

marine biotechnology company based in Charlottetown, Prince Edward Island, Canada. In March 2018, we acquired Plant Impact, an innovative bio-stimulant business. Using chemistry and novel molecule discovery, Plant Impact identifies ways to improve the yield and quality of crops by stimulating or moderating plant responses in both healthy and stressed crops during key growth stages. In late December 2018 we acquired Biosector, a vaccine adjuvant specialist, seen as a natural extension of our existing pharmaceutical excipients portfolio within our health care business.

Then, on 16 July 2019, the Group acquired Rewitec® GmbH, a technology-based business specialising in improving the efficiency and longevity of wind turbines and moving machinery through the application of their patented additives.

Sustainable Culture

We believe that our culture and our people set us apart from our peers. Our can-do attitude, agility, family spirit and customer focus are at the heart of what makes us different, and a true source of our competitive advantage. I am determined that we will continue to safeguard our culture and nurture the environment that enables everyone to reach their full potential. I would like to thank everyone across the group for the positive contributions they make to sustainability every day.

Steve Foots, Group Chief Executive

GRI 102-15 Key impacts, risks and opportunities

To continuously improve we must establish clear commitments and performance targets aligned to our 14 material areas and their longer-term objectives. We define material areas as topics or issues with the potential to affect the long-term success of our business, including the economies, environments and societies in which we operate. Targets have been set with our Group Executive Committee that support our sustainability strategy and ensure that progress is made in addressing our material areas.

Materiality Review

Our 14 material areas are as follows:

Material Area	Long-term Objective	Link to Key Risks
Climate Action	Aligned to United Nations Sustainable Development Goal (SDG) 13 of the same name and 7: Affordable and Clean Energy directing our efforts to combat climate change through reductions in scope 1,2 and 3 emissions.	Failure to develop/deliver process innovation
Community Education & Involvement	Aligned to SDGs 2, 3 & 4. Encourage and help develop younger generations, with a focus on science, technology, engineering and maths; and maintaining a strong relationship with our local communities all over the world.	
Customer Intimacy	Aligned to SDGs 2, 3, 7 & 13. Fostering close relationships with our customers to identify and find innovative solutions for unmet needs globally.	
Diversity & Inclusion	Aligned to SDG 5. Embracing the differences of a multi-skilled, multi-ethnic and multi-geographical workforce through an inclusive environment.	
Environmental Stewardship	Aligned to SDGs 6, 12, 14 & 15. Focusing on reducing our water consumption and minimising waste production across our operations, as well as maximising reuse and recyclability of our packaging.	Major environmental incident Compliance with environmental law (covers underlying contamination or new breach of regulations)
Health, Safety & Wellbeing	Aligned to SDGs 3 & 8. Protecting the health and safety of our employees and promoting wellbeing throughout the organisation.	Major safety incident
Knowledge Management	Aligned to SDGs 9 & 17. Retaining, protecting and effectively storing knowledge and data within the Company.	Security of business information and assets
Our People	SDGs 3 & 8. Attracting and developing people and ensuring equality of opportunities for all; ensuring we act as one global team to continue our growth and success.	Employee recruitment, retention and motivation Succession planning for senior positions
Process Safety	Aligned to SDGs 3 & 8. Ensuring that our operations remain safe and legally compliant through effective leadership.	Major safety incident
Product Innovation	Aligned to SDGs 7, 8, 12 & 14. Providing our customers with sustainable products through relentless innovation, using metrics such as bio-based raw material content, cradle-to-gate carbon footprint and the 12 Principles of Green Chemistry.	Global Raw material security and sustainability
Product Stewardship	Aligned to SDGs 2, 12 & 15. Responsible sourcing of our raw materials, maximising our use of bio-based raw materials and	Procurement/buying risk (e.g. inappropriate supplier selection; poor price

CRODA

	land-use productivity, and ensuring the supply of safe and sustainable products through regulatory leadership.	negotiation which leads to material cost increases)
Quality Assurance	Aligned to SDG 12. Supplying customers with high quality, trusted products on time and in full, minimising waste and ensuring consumer safety.	Product Liability Chemical regulatory compliance
Responsible Business	Aligned to SDGs 8, 16 & 17. Operating in a responsible and ethical manner through the entire value chain by engaging with our stakeholders and remaining transparent.	Ethics/governance compliance failure (e.g. competition law (anti-trust)/Bribery Act). Tax compliance failure (includes transfer pricing, and approach to tariffs/tariff barriers). Information security failure.
Supplier Partnership	Aligned to SDGs 7, 8 & 12. Understanding and managing supply chain risk through sustainable procurement activities and close collaboration and engagement with suppliers.	Third party supplier risks: ethical, reputational, sustainability of raw materials

Ethics and Integrity

GRI 102-16 Values, principles, standards and norms of behaviour

In 2005, the Croda Vision was set out as a statement of six values inherent to the Croda business, against which the policies and procedures of Croda must be carried out:

- To remain an independent company and operate as one global team.
- We will remain a fun, lively, stimulating and exciting place to work, where all employees have the courage to question and all functions and individuals are valued.
- There will be a place for many styles of leadership, but all leaders will have as their primary objective to build other leaders.
- We can only achieve our goals through excellent and constant communication, creativity and setting clear objectives at every level.
- We will continually improve.
- We will continue to be an ethical and responsible company.

Since its inception, the vision has remained unchanged but has become the underlying statement against which all social, economic and ecological policies and procedures are aligned with. Every

CRODA

new employee is given a copy of the Croda Vision and group policies are available on Croda's company intranet, Connect.

We manage our business across the triple bottom line, as a product or service can only be considered truly sustainable when the demands of economy, environment and society are met. We will continually strive to align our operations with this strategy in the following ways:

- Invest in truly global and profitable innovation to drive long-term growth and business sustainability.
- Continue innovating our products and technology platforms, and responsibly manage our raw materials and supply chains, so that we continue to minimise our environmental impact.
- Set consistent safety and environmental impact standards across our global operations, in order to provide a safe and healthy working environment.
- Value a diverse, inclusive workforce and provide tailored development opportunities to enable all employees to reach their full potential.
- Ensure fair and equitable employment conditions, providing a stimulating working environment based on respect and partnership.
- Be sensitive toward the communities in which we operate and proactively involve ourselves in local initiatives, with a focus on community education projects relating to the nature of our business.
- Go beyond compliance to work, where relevant, with legislative and industry bodies, as we strive for demanding standards that reduce environmental and social impacts and improve quality.
- Use all available, relevant media to develop open and transparent communication pathways with key stakeholders to help address our material areas.

Each material area in our sustainability programme has a long-term objective and clear management framework detailing strategy, performance management and implementation responsibilities.

We have a Code of Conduct that outlines the high standards to which all our employees are expected to conduct themselves, and a group Code of Ethics that details standards we follow to conduct business in an ethical manner.

We have developed economic performance policies and indicators in areas such as finance, risk management, acquisitions and disposals with significant issues in these areas are communicated to all employees. Furthermore, the authority to act in any area of economic importance in the group is

detailed in a freely available document, which explains at what level of the business specific decisions should be made.

Our environmental performance is monitored and externally audited against the ISO14001 environmental management standard and in 2010 all our global manufacturing sites were certified to this standard. We have also implemented the '12 Principles of Green Chemistry' in each of our research and development centres across the group, and these principles guide the development of new products in such a way that reduces waste, improves efficiency and ensures that our new products are as sustainable as reasonably practicable.

GRI 102-17 Mechanisms for advice and concerns about ethics

It is always our policy to conduct our business throughout the world with honesty and integrity. In the Croda Vision we have pledged that, "we will continue to be an ethical and responsible company."

In case of uncertainty in interpretation, employees should seek clarification from their line managers. All employees have the right to make confidential reports direct to the Company Secretary of Croda International Plc at Cowick Hall, Snaith, East Yorkshire DN14 9AA, United Kingdom, without fear of detrimental action being taken against them.

Our policy on whistle blowing allows employees to raise concerns with management about the conduct of others that they consider to be in some way damaging to the organisation or others within it.

The company is committed to the implementation of this policy and to a programme of action to ensure that the policy is, and continues to be, fully effective. The overall responsibility for the policy lies with the main Board of Directors, however all staff are expected to comply with the policy and to act in accordance with its objectives to remove any barriers to equal opportunity. Any act of discrimination by employees or any failure to comply with the terms of the policy will result in disciplinary action.

In 2014 we launched Croda SpeakUp which is a group wide independent reporting whistleblowing hotline and website, which further enhanced our whistleblowing policy and procedure. Croda SpeakUp is designed to ensure anonymity, whilst increasing employee comfort and willingness to challenge and report important issues. In North America, the roll out was combined with the

additional workplace cultural training across our operations. Please visit www.croda.com/companypolicy to read our group policies.

Governance

GRI 102-18 Governance structure

Our management structure allows us to respond quickly and effectively to individual business challenges and opportunities.

Our two senior decision-making bodies are the Board of Directors, comprising two executive directors and six non-executive directors, four of whom are independent (at the date of this report), and the Group Executive Committee, consisting of our most senior executives including those who sit on the board. These possess a broad range of business, financial and international skills and experience, providing appropriate balance and diversity.

The board has three main committees:

- Audit Committee
- Nomination Committee
- Remuneration Committee

Our Board and Group Executive Committee also work with our specialist committees of finance, risk management, routine business and SHE to set economic, environmental and social targets and KPIs. Sustainability plays a holistic role across all committees and our different business functions to ensure that the material areas of our business and key stakeholders are addressed as part of our sustainable business development.

More information about the responsibilities of the board and main committees can be found on pages 46 & 47 of our 2019 Annual Report, whilst the Articles of Association are available on our website at www.croda.com/corporategovernance.

GRI 102-19 Delegating authority

The board has ultimate responsibility for our strategy, but delegates authority to an executive level sponsor or senior manager for specialist committees. These sponsors are responsible for localising and implementing strategy and delivering results.

The sponsors report directly to the board, who provide challenge and guidance due to their experience with other businesses and industries. The board also has time built into its agenda programme to review progress against the agreed sustainability targets.

GRI 102-20 Executive level responsibility for economic, environmental and social topics

Each of our Executive Committee members has responsibility for a region or core function within the business and has established their own regional and business boards.

An executive sponsor chairs the Group Sustainability Steering Committee (GSSC). The GSSC is responsible for developing the sustainability strategy and targets, which are then presented to the Executive Committee and board for approval. Once the sustainability targets are agreed and approved, implementation plans are discussed and developed and rolled out across our organisation, with quarterly reports being presented to our Executive Committee.

Our governance structure facilitates the continual evolution of our sustainability strategy and ensures sustainability is at the heart of our business.

Further information about the governance of our GSSC can be found in our 2019 Sustainability Report.

GRI 102-21 Consulting stakeholders on economic, environmental, and social topics

We recognise the importance of communicating with our stakeholders. The Chairman, Executive Directors and other senior managers maintain regular contact with existing and potential shareholders to ensure our strategy and trading trends are clearly understood. During the year, numerous meetings were held with investors in the UK, USA, Europe and Asia, including face-to-face meetings, telephone and video conferences, and hosted site visits in all these regions. The Chairman, Group Chief Executive and Group Finance Director ensure that shareholders' views are communicated to the entire Board by giving feedback from shareholder meetings and brokers' reports.

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Each year we invite all of our shareholders to an Annual General Meeting (AGM) to ask questions relating to the agenda of the meeting, which customarily deals with our annual report and accounts, including the report on directors' remuneration. In addition to this, UK company law provides statutory mechanisms for shareholders, requiring directors of companies to hold shareholder meetings and propose resolutions submitted by shareholders.

We believe that effective internal communication is vital to achieving our business objectives and that communication and consultation strengthen the relationship between management and employees. We promote a transparent and open way of working and are committed to developing and improving the effectiveness of any communication and consultation processes.

The appropriate method of communication and/or consultation will be decided by the Company dependent upon the nature of the topic involved. Communication and consultations may take various forms that include, but are not limited to:

Announcements on intranet	Letter
Article in company magazine	Meeting with Union representatives and/or consultative bodies
Employee surveys	Memo
E-list	Notice
E-mail	Questionnaire
Face to face meetings that may be formal or informal	Team briefing and cascades
Focus groups	Team consultations
Group meetings	Telephone calls

More information about our communication with shareholders can be found in our 2019 Annual Report.

GRI 102-22 Governance structure of the highest governance body and its committees

At the date of this report, our Board comprises the Chairman, the Group Chief Executive, the Group Finance Director, and five non-executive directors, four of whom are independent.

The Board have a range of business, financial and international skills and experience. They represent the views and demands of all stakeholder groups and give valuable insights into economic, social and environmental issues due to their roles in other businesses and industries.

During 2019, no independent Non-Executive Director had served on the Board for more than nine years from the date of their first election, with the range between three years and eight and a half years. During 2019, there were six males on the Board and three females.

Further information about our Board of Directors can be found on page 45 of our 2019 Annual Report.

GRI 102-23 Chair of the highest governance body

Our Chairman is a non-executive director. The Chairman was independent on her appointment in 2015 but, as Chairman, is not classified as independent.

Further information about our Board of Directors can be found on page 45 of our [2019 Annual Report](#).

GRI 102-24 Nominating and selecting the highest governance body

At Croda, we comply with the provisions of the UK Corporate Governance Code (the "Code") and our board has ultimate responsibility for overall leadership of the company. At the date of this report, the board comprises the Chairman, the Group Chief Executive, the Group Finance Director, the Group General Counsel & Company Secretary and five very experienced non-executive directors who represent a source of strong independent advice and judgement. The Chairman, Anita Frew, and the senior independent director, Alan Ferguson, each have significant commercial experience and the board's understanding of the group's operations is enhanced by regular business presentations and site visits.

The board supports the principles set out in the code regarding board appointments and agrees that having a diverse mix of skills, experience and backgrounds on the board is very important. All members of the board have full access to the Company Secretary for his advice and services. Where necessary, the directors may also take independent professional advice at the company's expense. Directors are granted an indemnity from the company in respect of liabilities incurred as a result of their positions to the extent permitted by law. In addition, the company-maintained directors' and officers' liability insurance cover throughout the year.

Further information can be found in our 2019 Annual Report.

GRI 102-25 Conflicts of interest

The board has an established process for declaring and monitoring actual and potential conflicts. The Articles of Association of the Company allow the non-conflicted members of the board to authorise a conflict or potential conflict situation.

- Jez Maiden has a Non-Executive Director role on the board of PZ Cussons plc, a customer of Croda.

Details of the professional commitments of the Chair and the Non-Executive Directors are included in their biographies on pages 46-47 of our 2019 Annual Report. The board is satisfied that these do not interfere with the performance of their duties for the company.

During 2019, Steve Williams retired from the Board having served nine years. Tenure of the remaining independent Non-Executive Directors ranges between a year and a half and almost nine years at the year end. Keith Layden served just over five years as an Executive Director, prior to his appointment as a Non-Executive Director on 1 May 2017. Details of changes to the Board since the year end are outlined on page 61. The terms and conditions of appointment of Non-Executive Directors can be viewed at www.croda.com. They can be inspected during normal business hours at the Company's registered office by contacting the Company Secretary and will also be available for inspection at the AGM

GRI 102-26 Role of highest governance body in setting purpose, values, and strategy

The board has ultimate responsibility for the overall leadership of the company and in this role, it assists in the development of a clear strategy for the group, monitors operational and financial performance against agreed goals and objectives and ensures that appropriate controls and systems are in place to manage risk.

GRI 102-27 Collective knowledge of highest governance body

Training and briefings are available to all directors on appointment and subsequently, as appropriate, considering their existing experience, qualifications and skills. Directors receive a tailored induction programme based on their experience as a director of a listed company and knowledge of the industry sector. This includes time with the Company Secretary, members of the Executive Committee and other senior management across the business, meetings with advisers, visits

to operations around the group and provision of current and historical information about the company and the group and specific details on duties of directors. In order to build and increase the non-executive directors' familiarity with, and understanding of, the group's people and businesses and the markets in which it operates, presentations from senior managers are made at board meetings on a regular basis.

In addition to formal board meetings, in 2019, the directors attended offsite meetings to review the group's strategy and were present at the AGM. They also met with the Company's financial and public relations advisers to discuss the feedback from investors and analysts on the Group's annual results. The Chairman and Non-Executive Directors met together without the Executive Directors present.

The Chairman spends a considerable amount of time meeting with Steve Foots and the senior management team at the company's head office. This ensures that she is kept apprised of significant developments in the company between board meetings.

All directors are involved in the group's Leadership Development Programme. This involves attending various sessions and includes discussions on business strategy and leadership chaired by a director, as well as interacting with employee course members in team building sessions or at dinners.

The board visited our manufacturing site and sales office in Campinas, Brazil and Incotec's Brazilian operation at Holambra.

During the year, all the Non-Executive Directors (except for Keith Layden) made additional overseas site visits, outside of the normal board site visits. The Non-Executive Directors discussed a wide range of topics with the local management teams, including process safety, innovation, business ethics, plant expansion plans and challenges and opportunities in each market. These interactions enhance the Board's understanding of the business and allow directors to spend time with the group's senior managers and potential future leaders.

As in previous years, members of the Executive Committee and other senior managers from across the company attended board dinners where the board discussed topics relevant to the business and its strategy.

GRI 102-28 Evaluating the highest governance body's performance

Remuneration of the executive members of the board includes performance related aspects rewarding contribution to sustained increases in company performance and value. In line with the Association of British Insurers' Guidelines on Responsible Investment Disclosure, the Remuneration Committee

ensures that the incentive structure for executive directors and senior executive management will not raise environmental, social or governance (ESG) risks by inadvertently motivating irresponsible behaviour. The committee also has the discretion to take health, safety and environmental performance into consideration when determining the actual overall level of individual bonus payments and it may reduce the bonus awards if it considers it appropriate to do so.

GRI 102-29 Identifying and managing economic, environmental, and social impacts

Effective management of risks and opportunities is essential to the delivery of the group's financial and non-financial objectives, thereby ensuring that we deliver value to our shareholders, protect our reputation and continue to meet the requirements of good corporate governance.

The Board of Directors determines our overall risk appetite through a review of internal and external business and stakeholder needs. It also oversees the group's risk management and internal control systems, defines risks and monitors risk exposures and ensures that the nature and extent of the risks we take align with our strategic objectives.

We are committed to the effective management of all key risks identified and coordinate our global approach through our Risk Management Committee. Chaired by the Group Finance Director and comprising the regional presidents, Group Financial Controller and Company Secretary, with the Vice President – Risk & Control in attendance.

Further details of our risk management processes can be found in our 2019 Annual Report.

GRI 102-30 Effectiveness of risk management processes

The Board of Directors determines our overall risk appetite. It also oversees the group's risk management and internal control systems, defines risks and monitors risk exposures and ensures that the nature and extent of the risks we take align with our strategic objectives (of which one is: investing in a sustainable future).

The Audit Committee supports the board in risk mitigation by approving and directing our internal audit team plans to perform assurance audits over controls in key risk areas, and in reviewing the findings. It also monitors the effectiveness of risk management and internal control systems and reviews the reliance placed by management on mitigating controls, including internal and external assurance.

Our safety, health, environmental and quality (SHEQ) risks, which are closely aligned to several of our material areas are reviewed and considered by a dedicated executive level committee. This committee meets quarterly to consider the results of assurance audits over SHEQ controls and to monitor defined and agreed key performance indicators. The Committee reports half yearly to the board.

GRI 102-31 Review of economic, environmental, and social topics

The Risk Management Committee meets quarterly and reports directly to the board. The Group SHEQ steering committee meets quarterly to monitor progress against the group safety, health, environment and quality objectives and targets, review safety performance and audits, and determine the requirement for new or revised SHEQ policies, procedures and objectives.

GRI 102-32 Highest governance body's role in sustainability reporting

The board receive a draft of the 2019 Annual Report and Accounts and the 2019 Sustainability Report and each member reviews the documents and provides detailed feedback. They then receive a final copy of the two reports to approve before printing and mailing commences.

GRI 102-33 Communicating critical concerns

Internal audit report grading includes a colour coded score for individual issues and the overall report for the location visited. High risk reports are escalated to the Audit Committee Chairman as they arise, and high-risk issues are escalated to the Executive Committee. All reports are presented to the Audit Committee as they are completed at the quarterly meetings.

GRI 102-36 Process for determining remuneration

The Remuneration Committee, which consists of all non-executive directors, reviews and approves the annual salaries, incentive arrangements (including setting performance targets and payments/vesting events), service agreements and other employment conditions of the Executive Directors and certain members of the senior executive management team designated by the board. The Committee has delegated responsibility for setting the remuneration of the Chairman.

The committee invites individuals to attend meetings to ensure that decisions are informed and take account of pay and conditions in the wider group.

During 2019, invitees included other Directors and employees of the Group and the Committee's advisers, including Steve Foots (Group Chief Executive), Jez Maiden (Group Finance Director), Tracy Sheedy (Group HR Director) and Tom Brophy (Group General Counsel and Company Secretary).

During 2019 Deloitte have provided remuneration consultancy to the Remuneration Committee. Deloitte also provided overseas tax and legal advisory services and are signatories to the Remuneration Consultants Group Code of Conduct.

The Committee regularly reviews the external adviser relationship and is comfortable that the advice it is receiving remains objective and independent.

More information about the Remuneration Committee and our Remuneration Report can be found on pages 71-97 of the 2019 Annual Report.

GRI 102-37 Stakeholders' involvement in remuneration

The Remuneration Committee considers shareholder feedback received in relation to the AGM each year and guidance from shareholder representative bodies more generally. This feedback, plus any additional feedback received during any meetings held with shareholders from time to time, is then considered as part of the Committee's ongoing review of remuneration policy.

In line with current market practice, we do not actively consult with employees on executive remuneration. We have a diverse workforce operating globally in 37 different countries, with various local pay practices, which hinders effective consultation and so the Group Human Resources Director updates the committee periodically on feedback received on remuneration practices across the Group. The committee takes due account of remuneration structures elsewhere in the Group when setting pay for the Executive Directors (for example, consideration is given to the overall salary increase budget and the incentive structures that operate across the group).

Stakeholder Engagement

GRI 102-40 List of stakeholder groups

We must consider and take necessary action to meet the needs and expectations of our stakeholders. By understanding the sustainability issues that are of greatest concern to them, we can make sure that we focus on the issues that will be most important to the future of our business, and our long-term sustainable growth, through the management of our sustainability programme.

To achieve this, we maintain a culture of open communication with our internal and external stakeholders, regularly holding face to face meetings, hosting webinars and training sessions, attending events and seeking feedback. Throughout the year we engaged in direct communication with the following stakeholder groups:

Stakeholder Groups	
Community	Investors
Customers & Consumers	Non-Government Organisations
Employees	Suppliers
Governance & Regulatory	

Further information on our approach to stakeholder engagement can be found in our 2019 Sustainability Report.

GRI 102-41 Collective bargaining agreements

Partial reporting.

We ensure our policies are consistent with the spirit and intent of ILO's Declaration on Fundamental Principles and Rights at work, where applicable to business. Our group policy on Trade Union Membership states that Croda International Plc recognises that all its employees have the right to freedom of association. The Company will not interfere in the legitimate activities of Trades Unions at our sites.

The Company recognises that every employee has the right to join or remain a member of a Trade Union if they wish to do so. Equally the company recognises that every employee has the right not to join or to leave a Trade Union if they wish to do so. The company will not seek to persuade any employee, potential or otherwise, to join or leave any Trade Union or other workers' association. Collective bargaining agreements are managed individually at each manufacturing site between the site and the corresponding unions. As such, the company does not hold a central record of how many employees are covered by such agreements.

GRI 102-42 Identifying and selecting stakeholders

Key stakeholder engagement areas are:

- Working closely with our customers to meet their current and future needs.
- Close interaction with suppliers to deliver high performance sustainable products.
- Regular engagement with our employees on performance, policies and issues relating to meeting personal and business needs.
- Engagement with neighbours close to all our operations and open discussion regarding safety with those who live around our manufacturing sites.
- Ensuring that our investors are satisfied not only with our short-term performance, but also our long-term sustainability strategy and
- A proactive approach to working with many external organisations, both within and outside our industry, to contribute and aid our understanding of the issues affecting the sustainability of our business.

Further information on who we have engaged with throughout the year can be found in the Sustainability Report.

GRI 102-43 Approach to stakeholder engagement

In 2014, we conducted an external stakeholder survey with our employees, customers, suppliers and local communities, which focused on the issues addressed in our sustainability programme; and a supplementary internal survey took place in 2015. The outcome of the survey was used to determine

the relevance and robustness of our Material Areas and informed our updated Materiality Matrix. Please see GRI 102-44 for more information.

Additional stakeholder engagement activities this year included:

- Customers and consumers: We held 25,000 meetings with our customers.
- Suppliers: In 2019, we invited 133 suppliers to respond to the CDP Climate Change questionnaire through our CDP Supply Chain Membership achieving a 43% response rate.
- Local communities: Our employees recorded 5,883 hours supporting the wider societies we are a part of through our 1% club in 2019.
- Employees: We held face to face employee cascades across our operations throughout the year, with many locations meeting at least twice a year.
- Non-government organisations: We continue to work closely with the Roundtable on Sustainable Palm Oil (RSPO), sitting on the RSPO Claims & Communications Standing Committee and frequently presenting at RSPO meetings.
- Governments and regulatory bodies: We are active members of over 190 national and international industry associations.
- Further information on our engagement activities throughout the year can be found our 2019 Sustainability Report.

GRI 102-44 Key topics and concerns raised

Our Purpose and business model succeed on the strength of our stakeholder relationships. We prioritise engagement with these individuals and groups, striving to understand their key considerations and goals so that we can achieve these together.

Some key highlights for 2019 include:

- Shareholders – 64% proportion of share capital held by the 347 investors we met in 2019
- Our People – 3,500 responses to Purpose Pulse Surveys (Oct – Dec 2019)
- Customers 25,000 face-to-face meetings with our customers in 2019
- Suppliers - We are 1 of 125 companies globally to join the CDP supply chain, engaging with suppliers on environmental issues
- Non-Governmental Organisations (NGOs) – 99% of our manufacturing sites who use palm oil are RSPO certified

Croda's Directors have regard to the interests of the Company's employees and other stakeholders, including its impact on the community, the environment and its reputation, when making their decisions. The Directors consider what is likely to promote the success of the Company for its members in the long term in all their decision making.

More information on how we engage our stakeholders can be found on pages 14 and 15 of our 2019 Annual Report.

GRI -103 Management Approach: Identified Material Aspects and Boundaries

This report covers the sustainability performance of Croda International Plc for the period 1 January 2019 to 31 December 2019. The scope of this report is all wholly owned operations, plus those operations where we have significant management influence due to a majority shareholding. Unless otherwise stated, data provided throughout this report is for continuing operations.

On 16 July 2019, the Group acquired Rewitec® GmbH, a technology-based business specialising in improving the efficiency and longevity of wind turbines and moving machinery through the application of their patented additives. Based in Germany, Rewitec's innovations offer sustainability benefits by extending the lifetime and improving the performance of gearboxes, bearings and engines within wind turbine, automotive and marine industries worldwide. The acquisition will form part of our Energy Technologies business (Performance Technologies sector), leveraging our dedicated global sales network to accelerate Rewitec's growth potential.

The material aspects therefore cover all fully managed operations. The boundary assessment concluded that most material aspects are only material within the organisation. If and where exceptions occur, these are clearly stated within the disclosure.

More information about our operations can be found in our 2019 Annual Report.

GRI 102-45 Entities included in the consolidated financial statements

We are a global organisation with 4,580 employees across 38 countries*. By being close to our customers around the world, we have a collaborative approach to business, which allows us to respond quickly and efficiently to unmet needs.

Our business is split into four reporting market sectors:

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Personal Care: We are the world's leading supplier of speciality ingredients for the personal care industry. We achieve this by offering our customers expertise in formulation development, claims substantiation, market analysis and regulatory support. Our ingredients are used in a range of applications including skin care, sun care, hair care, colour cosmetics and toiletries.

Life Sciences: Our life sciences market sector comprises three businesses, health care, crop care and seed enhancement. Health care delivers high quality ingredients and formulation expertise to pharmaceutical and nutritional markets, which includes dermatology and animal health. Crop care provides innovative ingredients and formulation expertise to agrochemical companies, enabling them to develop efficient, complex and safe products that help farmers achieve superior yields. Our seed enhancement business has the ability and technology to improve and enhance the quality of seeds and to apply seed treatment products.

Performance Technologies: Performance technologies delivers high added value additives to a wide range of markets. It is organised into four business areas. Energy technologies supplies automotive and industrial lubricants companies, as well as supplying into the oil & gas market. Energy technologies is also developing a niche range of specialist materials for thermal management, catalysts, electronics and batteries. Smart materials serve the coatings, adhesives and speciality polymers markets, including supplying additives into the plastics and packaging sector; and home care serves household product manufacturers, as well as industrial cleaning companies. Our water treatment business supplies innovative surfactants for use in the manufacture of water-soluble polymers as well as other chemistries for the water treatment industry.

Industrial Chemicals: Our industrial chemicals market sector sells a range of co-streams produced during the manufacture of core sector products and undertakes toll processing.

In addition to the above, the group has a **Technology Investment Group** that identifies and integrates new technology into the global business structure, and a **Process Innovation Team** that innovates with new and existing processes to improve operational processes.

A list of our principal subsidiary companies that primarily affect the financial statements can be found on pages 156-157 of our 2019 Annual Report. No entity included in our financial statements has been excluded from this report.

More information on our organisational structure can be found at www.croda.com.

*As of April 2019

GRI 102-46 Defining report content and topic boundaries

Our sustainability programme is guided by the four global drivers that we consider to be the most important to the future of our business:

1. Changing Demographics
2. Fragile World
3. Demand for Transparency and Trust
4. Digitalisation and interconnectedness

As the impact of such global drivers changes the world around us, our sustainability programme must continue to evolve to meet the needs of our stakeholders, especially our customers and their consumers. We review our materiality annually with our Executive Committee and a panel of sustainability experts within the Business who sit on our Group Sustainability Steering Committee. The review takes place in four stages:

1. Identification and prioritisation of key Material Areas within Croda
2. Identification and prioritisation of key Material Areas for our stakeholders
3. Determination of materiality
4. Revision of our sustainability programme

Stage 1 - Identification and prioritisation of key Material Areas within Croda

We first defined our materiality and matrix in 2011. In 2013, we conducted an extensive review of our programme by considering the opportunities and threats presented by global drivers of change. As a result, we redefined our programme into 10 Material Areas with longer-term objectives. In 2015, we conducted an appraisal of these Material Areas. Experts on the Steering Committee and the Executive Committee provided insights on how these Material Areas were received within the business, how they could be improved, where more resource is required, and gaps in the programme with future potential. These suggestions were then considered together with other factors, such as stakeholder priorities.

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In 2018 these material areas were reviewed at the annual Sustainability Conference and increased to 14 key areas. At the subsequent Sustainability Steering Committee meeting, members of the committee discussed the position of each Material Area in terms of importance to us. The result of this was an order of importance to us (from high to very high) of all Material Areas with Our People and Process safety considered of utmost importance.

Stage 2 - Identification and prioritisation of key Material Areas for our stakeholders

In addition to the insights from the business in 2018, we recruited Corporate Citizenship Consultancy to perform an extensive global stakeholder survey to further inform our internal materiality matrix. We provided Corporate Citizenship with external stakeholder contacts comprising customers, suppliers and academic partners, amongst others. Corporate Citizenship conducted 45-minute interviews with each stakeholder, the key highlights of which are as follows:

- Climate Action was the most important theme identified during the consultation.
- Diversity and Inclusion was ranked the lowest important theme during the consultation.
- The overwhelming message that emerged from this exercise was that the stakeholders interviewed really like Croda.
- Factors contributing to the above statement included the detailed, helpful and friendly alignment that Croda established with its stakeholders, particularly with, though not confined to, its customers.

Further analysis of stakeholder interviews provided the following feedback taken from Corporate Citizens final report:

Customers

Customers rate Croda as a very attentive organisation. They saw this as being a facet of its 'can do' attitude. A typical comment was:

"Croda visit us on a regular basis – every one or two months. If we have any issues to resolve they provide information and offer to solve the problem."

Many other customers made similar comments.

One would not have thought regular personal contact with a supplier was all that unusual (though maybe in today's online world it is!). Whether it is or not, customers portrayed Croda as always aligning itself to the customer priority and actively finding solutions to meet customer-challenges.

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A word that was frequently cited unprompted was 'innovative'. The innovative and entrepreneurial nature of Croda's business model was seen as a significant plus.

A further word that frequently emerged was 'natural'. The natural nature of Croda's products was seen as a net positive in terms of sustainability and crucial by a number of customers to the development of their own product range.

The customers varied considerably in which Material Areas they prioritised. Six customers completed the survey. Five different Material Areas were picked out as number one with only Product Innovation being selected more than once.

Investors

We interviewed three investors as part of the exercise. The two represented active investors were looking to identify companies that had business strategies designed to deal with and benefit from key global trends. It was clear that they both recognised Croda as meeting that test.

What was equally striking was that all three had Product Innovation as one of their top two issues.

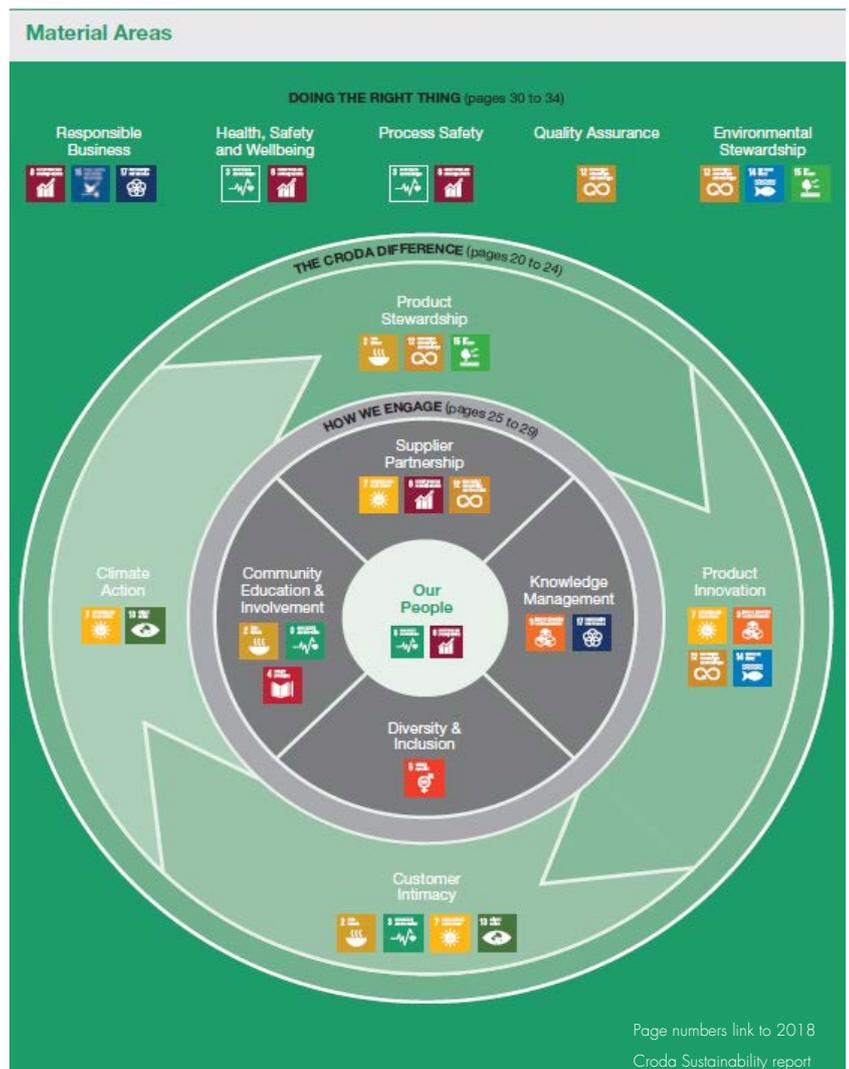
Across the whole range of stakeholders Product Innovation was accorded greater importance than Croda afforded it in its own ranking exercise.

We deduced from the conversations with the investors that they saw growing emphasis on the difference that products made and the measurement of the total footprint of products, from sourcing through to use and disposal.

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Stage 3 - Determination of materiality

Following our internal materiality review and consultation with external stakeholders, our key material areas were re-mapped onto our Priority Matrix, which details the areas of most importance to us and our stakeholders (figure. 1). From this work, we carried out an exercise to map the SDGs against our Material Areas and we identified four where we contribute to many of the driver SDGs through 'The Croda Difference', as seen in the chart opposite: the circularity is an important feature as each Material Area is linked to the others.



Stage 4 - Revision of our Sustainability programme

In 2019, our sustainability programme was again reviewed by the Group Executive Committee with the Global Sustainability Team and the Global Sustainability Steering Committee. No changes were made.

GRI 102-47 List of material topics

As a result of the annual review of our sustainability programme, the below aspects were considered material:

Economic	Environmental	Labour Practices and Decent Work
Economic Performance	Materials	Employment
Procurement Practices	Energy	Occupational Health and Safety
Anti-corruption	Water	Training and Education
Anti-competitive behaviour	Biodiversity	Diversity and Equal Opportunity
	Emissions	
	Effluents and Waste	
	Compliance	
Human Rights	Society	Product Responsibility
Freedom of Association and Collective Bargaining	Local Communities	Customer Health and Safety
Child Labour	Public Policy	Product and Service Labelling
Forced or Compulsory Labour		Marketing Communications
		Customer Privacy
		Compliance

GRI 102-48 Restatements of information

There are no restatements to report.

GRI 102-49 Changes in reporting

We have recently launched an ambitious set of 2030 targets. Our performance against targets and future targets can be found throughout the 2019 Sustainability Report

Report Profile

GRI 102-50 Reporting period

This report covers the performance of the Croda Group for the period 1 January 2019 to 31 December 2019.

The reporting of some objectives and targets may cover a wider period; this will be made clear where relevant.

GRI 102-51 Date of most recent report

We have been reporting to GRI since 2008 and this report is our 12th GRI Report. We publish our report annually, in the second quarter of the year. Our previous GRI reports can be downloaded from our online GRI report archive whilst our Sustainability Reports are also available at <http://www.croda.com/sustainabilityreport>.

GRI 102-52 Reporting cycle

We follow an annual reporting cycle; our printed Sustainability Report (formerly CSR Report up to 2010) is published in March each year and released in conjunction with our Annual Report. Our GRI report is released exclusively online at www.croda.com/GRI.

GRI 102-53 Contact point for questions regarding the report

Should you have any questions regarding our GRI Report or its contents then please do not hesitate to contact our Group Sustainability Team via sustainability@croda.com.

GRI 102-54 Claims of reporting in accordance with GRI standards

This report has been prepared in accordance with the GRI Standards: Core option.

GRI 102-55 Content Index

The table below lists the Standard Disclosures and Specific Disclosures that we disclose for our GRI Report 'core' in-accordance level.

General Disclosures (2016)

Number	Title	Further Information	UN SDG Alignment
Universal Standards			
Organisational Profile			
102-1	Name of the organisation	Croda International Plc	
102-2	Activities, brands, products and services	Performance and financials p.22-38 ARA 2019	
102-3	Location of headquarters	Goole, East Yorkshire, United Kingdom	
102-4	Location of operations	https://www.croda.com/en-gb/careers/our-locations	
102-5	Ownership and legal form	Shareholder Information p.159 ARA 2019	
102-6	Markets served	https://www.croda.com/en-gb/careers/discover-croda/markets-we-serve	
102-7	Scale of the organisation	Performance and financials p.22-38 ARA 2019	
102-8	Information on employees and other workers		
102-9	Supply chain		
102-10	Significant changes to the organisation & its supply chain	2018 Acquisitions p.148 ARA 2019	
102-11	Precautionary principle or approach	Risk management p.38-43 ARA 2019	
102-12	External initiatives	Engaging stakeholders p.14-15 ARA 2019	
102-13	Memberships of associations	Engaging stakeholders p.14-15 ARA 2019	

Strategy and Analysis

102-14	Statement from senior decision-maker	Chair's statement p.10 ARA 2019	
102-15	Key impacts, risks and opportunities	Chief Executive's Review p.16 ARA 2019 Chief Executive's Review p.16 ARA 2019 Risk management p.38-43 ARA 2019	

Ethics and Integrity

102-16	Values, principles, standards and norms of behaviour	Chair's letter p.44 ARA 2019 Delivering sustainability p.16-17 SR 2019 Our commitment p18-19 SR 2019	
102-17	Mechanisms for advice and concerns about ethics	https://www.croda.com/en-gb/about-us/what-we-do/policies-and-procedures/whistleblowing-policy	

Governance

102-18	Governance structure	Governance structure p.59 ARA 2019	
102-19	Delegating authority	Governance structure p.59 ARA 2019 Risk management and internal control p.64 ARA 2019 Other commitments p.70 ARA 2019	
102-20	Executive level responsibility for economic, environmental and social topics	Other commitments p.70 ARA 2019 Delivering sustainability p.16-17 SR 2019	
102-21	Consulting stakeholders on economic, environmental and social topics	Engagement with our stakeholders p. 54-55 ARA 2019	
102-22	Composition of the highest governance body and its committees	Corporate governance p.58-59 ARA 2019	 
102-23	Chair of the highest governance body	Corporate governance p.58-59 ARA 2019	
102-24	Nominating and selecting the highest governance body		 
102-25	Conflicts of interest	Conflicts of interest p.50 ARA 2019	

102-26	Role of highest governance body in setting purpose, values and strategy	Chair's statement p.10 ARA 2019	
102-27	Collective knowledge of highest governance body	Our leadership team p46-47 ARA 2019	
102-28	Evaluating the highest governance body's performance	Board performance p60 ARA 2019	
102-29	Identifying and managing economic, environmental and social impacts	Risk management p.38-43 ARA 2019	
102-30	Effectiveness of risk management process	How we monitor p.38 ARA 2019	
102-31	Review of economic, environmental and social topics	Risk management p.38-43 ARA 2019	
102-32	Highest governance body's role in sustainability reporting		
102-33	Communicating critical concerns	How we manage risk p.38 ARA 2019	
102-36	Process for determining remuneration	Directors remuneration report p.71-97 ARA 2019	
102-37	Stakeholders' involvement in remuneration	Directors remuneration report p.71-97 ARA 2019	
Stakeholder Engagement			
102-40	List of stakeholder groups	Our stakeholders p.45-15 ARA 2019	
102-41	Collective bargaining agreements	Our stakeholders p.45-15 ARA 2019	
102-42	Identifying and selecting stakeholders	Our stakeholders p.45-15 ARA 2019	
102-43	Approach to stakeholder engagement	Our stakeholders p.45-15 ARA 2019	
102-44	Key topics and concerns raised	Our stakeholders p.45-15 ARA 2019	
Identified Material Aspects and Boundaries			
103	Identified Material Areas and Boundaries: Management approach		
102-45	Entities included in the consolidated financial statements		
102-46	Defining report content and topic boundaries		
102-47	List of material topics		
102-48	Restatements of information		

102-49	Changes in reporting	
Report Profile		
102-50	Reporting Period	This report covers the performance of the Croda Group for the period 1 January 2019 to 31 December 2019. The reporting of some objectives and targets may cover a wider period; this will be made clear where relevant.
102-51	Date of most recent report	2020
102-52	Reporting cycle	Annually
102-53	Contact point for questions regarding the report	sustainability@croda.com
102-54	Claims of reporting in accordance with GRI standards	This report has been prepared in accordance with the GRI Standards: Core option
102-55	Content Index	
102-56	External assurance	External audit p. 66, 68-69, 100 ARA 2019

Topic Specific Disclosures (2016)

Disclosure Number	Disclosure Title	Further Information	UN SDG Alignment
Economic			
103	Economic performance management approach		
Aspect: Economic Performance			
201-1	Direct economic value generated and distributed	Financial statements p.122-123 ARA 2019	
201-2	Financial implications and other risks and opportunities due to climate change	Risk heat map p.39 ARA 2019	
201-3	Defined benefit plan obligations and other retirement plans	Summary of pension arrangements p.74 ARA 2019	
201-4	Financial assistance received from government		

Aspect: Procurement Practices

204-1 Proportion of spending on local suppliers

Aspect: Anti-corruption

205-1 Operations assessed for risks relating to corruption Audit, risk and internal control p. 64 ARA 2019



205-2 Communication and training about anti-corruption policies and procedures

Aspect: Anti-competitive behaviour

206-1 Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes

Aspect: Tax

207-1 Approach to tax Group accounting policies p.118-119 ARA 2019

207-2 Tax governance, control, and risk management Group accounting policies p.118-119 ARA 2019

207-3 Stakeholder engagement and management of concerns related to tax Group accounting policies p.118-119 ARA 2019

Environment

103-1 Explanation of the material topic and its boundary Climate action

103-2 The management approach and its components Climate action

103-3 Evaluation of the management approach and measurement Climate action

Aspect: Materials

301-1 Materials used by weight or volume Climate p.20-25 SR 2019



Aspect: Energy

302-1 Energy consumption within the organisation
Reducing emissions p.22 SR 2019
2019 Performance p.40 SR 2019



302-3	Energy intensity	Climate p.2 SR 2019 2019 Performance p.40 SR 2019	
302-4	Reduction of energy consumption	Reducing emissions p.22 SR 2019 2019 Performance p.40 SR 2019	
Aspect: Water			
303-3	Water withdrawal	Fundamentals p.32 SR 2019 Environmental stewardship p.35 SR 2019 2019 Performance p.40 SR 2019	
303-5	Water consumption	Being land positive p.5 SR 2019 Land positive p.25 SR 2019 Land use p.26 SR 2019 Fundamentals p.32 SR 2019	
Aspect: Biodiversity			
304-1	Operational sites owned, leased, managed in or adjacent to protected sites		
304-2	Significant impacts of activities, products and services on biodiversity	Land positive p.25 SR 2019 Land use p.26 SR 2019	
Aspect: Emissions			
305-1	Direct (Scope 1) GHG emissions	Climate positive p.20-22 SR 2019 2019 Performance p.40 SR 2019	
305-2	Energy indirect (Scope 2) GHG emissions	Reducing emissions p.22 SR 2019 2019 Performance p.40 SR 2019	

305-3	Other indirect (Scope 3) GHG emissions	Scope 3 emissions p.23 SR 2019	
305-4	GHG emissions intensity	Climate positive p.20 SR 2019 Reducing emissions p.22 SR 2019	
305-5	Reduction of GHG emissions	Climate positive p.20 SR 2019 Carbon cover p.21 SR 2019 Reducing emissions p.22-23 SR 2019	
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Environmental stewardship p.40 SR 2019	
Aspect: Effluents and Waste			
306-1	Water discharge by quality and destination		
306-2	Waste by type and disposal method		
306-3	Significant spills		
Aspect: Compliance			
307-1	Non-compliance with environmental laws and regulations		
Aspect: Supplier Environmental Assessment			
308-1	New suppliers that were screened using environmental criteria	Being climate positive p.3 SR 2019 Stakeholders p.14-15 SR 2019 Scope 3 emissions p.23 SR 2019 Land use p.26 SR 2019 Fundamentals p.33 SR 2019	

Labour Practices and Decent Work

Aspect: Employment

103	Management approach		
401-1	New employee hires and employee turnover		
401-3	Parental leave	Gender pay gap p.88 ARA 2019	

Aspect: Occupational Health and Safety

103-1	Explanation of the material topic and its boundary		
103-2	The management approach and its components		
103-3	Evaluation of the management approach and measurement		
403-1	Occupational health and safety management system		
403-2	Hazard identification, risk assessment and incident investigation		
403-3	Occupational health services	Employees p.99 ARA 2019	
403-4	Worker participation, consultation and communication on occupational health and safety	Chair's letter p.44 ARA 2019	
403-5	Worker training on occupational health and safety		
403-6	Promotion of worker health	People p.6-7 SR 2019 People positive p.28-30 SR 2019	

Aspect: Training and Education

103	Management Approach		
404-1	Average hours of training per year per employee	Fundamentals p.32 SR 2019	
404-2	Programs for upgrading employee skills and transition assistance programs		
404-3	Percentage of employees receiving regular performance and career development reviews	Knowledge management p.33, 37 SR 2019	

Aspect: Diversity and Equal Opportunity

103 Management Approach

405-1 Diversity of governance bodies and employees

Diversity and inclusion p.31 ARA 2019

Board diversity, composition and activity p. 48 ARA 2019

Responsibilities p.62 ARA 2019

More than just pay p.88 ARA 2019

Gender balance p.30 SR 2019



Human Rights

103 Management Approach

Aspect: Freedom of Association and Collective Bargaining

407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk



Aspect: Child Labour

408-1 Operations and suppliers at significant risk for incidents of child labour



Aspect: Forced or Compulsory Labour

409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour



Society

Aspect: Local Communities

103 Management Approach

413-1 Operations with local community engagement



Aspect: Public Policy

103 Management Approach

415-1 Political contributions



Product Responsibility

103-1	Explanation of the material topic and its boundary	
103-2	The management approach and its components	
Aspect: Customer Health and Safety		
416-1	Assessment of the health and safety impact of product and service categories	
416-2	Incidents of non-compliance	
Aspect: Product and Service Labelling		
417-1	Requirements for product and service information and labelling	
417-2	Incidents of non-compliance	
Aspect: Marketing Communications		
417-3	Incidents of non-compliance concerning marketing communications	
Aspect: Customer Privacy		
103-1	Explanation of the material topic and its boundary	
103-2	The management approach and its components	
103-3	Evaluation of the management approach and measurement	
418-1	Substantiated complaints regarding breaches of customer privacy	
Aspect: Compliance		
419-1	Non-compliance with laws and regulations in the social and economic area	
Further Material Areas		
Product Innovation		
103-1	Explanation of the material topic and its boundary	
103-2	The management approach and its components	
103-3	Evaluation of the management approach and measurement	



Quality Assurance

103 Management Approach

Responsible Business

103-1 Explanation of the material topic and its boundary

103-2 The management approach and its components

103-3 Evaluation of the management approach and measurement



Environmental Stewardship

103-1 Explanation of the material topic and its boundary

103-2 The management approach and its components

103-3 Evaluation of the management approach and measurement



GRI 102-56 External Assurance

The financial information contained in the Annual Report has been externally audited by KPMG LLP Statutory Auditors, detailed in a statement which can be found on pages 102-109 of our 2019 Annual Report.

Along with this process, the financial and non-financial information in the directors' report, including the sustainability section, has been reviewed for inconsistencies with the audited financial statements.

In 2019, our reported scope 1,2 and 3 GHG emissions received reasonable verification by Carbon Smart in accordance with the requirements of the ISO 14064-3 standard. The verification covers our stated historic emissions for one reporting year – the 12 months starting 1st January 2019 and ending 31st December 2019.

Economic Performance

GRI 103 – Economic Performance Management Approach

Economic Performance

We are the name behind the high-performance ingredients and technologies in some of the biggest, most successful brands in the world; creating, making and selling speciality chemicals that are relied on by industries and consumers everywhere. Consumers may not know our name, but we create the innovations that help our customers build million and billion-pound brands.

Like our customers, we are driven by the desires of the consumer and our aim is to identify, anticipate and satisfy their unmet needs. We do this by working intimately with our customers and by focusing on constant, sustainable innovation.

To maximise opportunities for growth, we use the global mega trends to shape our strategy and business model, which ensures we can deliver innovations that satisfy the unmet needs of our customers:

- Changing demographics
- Fragile world

- Demand for transparency and trust
- Digitalisation and interconnectedness

These megatrends will impact right across our four business sectors, and continued innovation coupled with our ongoing focus on naturally sourced raw materials will leave us well placed to take advantage of them.

The delivery of our ambitious goals will be enabled by our three key strategic objectives: delivering growth, driving innovation and sustainable solutions.

For further details on our economic performance see our 2019 Annual Report.

Procurement Practices

Renewable, naturally sourced raw materials are at the heart of Croda. Our very first product in 1925 was Lanolin, which is created as a result of washing sheep fleece for the wool industry, making it a very natural and sustainable ingredient. 90 years later, we are still working closely with wool producers to improve the efficiency of Lanolin extraction.

Our global procurement team harbour strong, long lasting relationships with our suppliers through a culture of open communication. Our Supplier Code of Conduct is actively managed during face-to-face meetings with our suppliers and often has its own place on the agenda to be discussed.

We utilise a system called SAP to track and monitor all raw material purchasing. All of our sites globally are in charge of their purchasing budgets and it is their policy to source locally where possible.

GRI 201-1 Direct economic value generated and distributed

In 2019, turnover from continuing operations was £1377.7 (2018: £1,386.9m) and operating profit was £339.7 (2018: £342.5m), a return on sales of 24.7% (2018: 24.7%).

Adjusted pre-tax profit from continuing operations decreased by 2.83% to £322.1m (2018: £331.5m). Earnings per share increased by 6.3% to 190.2p (2017: 179.0p).

Revenue (£m)	1377.7
Bought-in Materials and Services	711.3
Value Added	666.4
To employees	280.1
To governments	78.5
To providers of capital	284.5
Retained in the business	23.3

Further details on our economic value can be found throughout the 2019 Annual Report. An overview can be found on page 1, whilst the group's financial statements can be found on pages 94-140, with our five-year record on page 150.

GRI 201-2 Financial implications and other risks and opportunities due to climate change

Partial Reporting

As an organisation we are aware that climate change is affecting the way that we think about business and the decisions that we make. Within our risk management framework, Group wide impacts and trends including external and emerging risks are identified, including those relating to climate change. Although no specific risks relating to climate change emerged as one of our key organisational risks, the consequences of climate change on our business have been identified within the market sector, regional and manufacturing site risk registers.

As the link between emissions of combustion products such as CO₂ and climate change are now well established, it is essential that as a socially responsible company we reduce the impact of our emissions to a sustainable level. The expectation of all our stakeholders is that we continue to make progress in reducing discharges of climate change gases.

We are in a strong position to exploit emerging trends related to climate change, with a significant proportion of our raw materials coming from renewable sources and our new product development having a strong focus on products that can help reduce the energy that people and industry consume during manufacture and end use.

Further details of the Groups risk management processes can be found on pages 38-43 of the 2019 Annual Report.

Further details on how we are tackling the issue of air quality and climate change can be found on pages 20-35 of the 2019 Sustainability Report. Further details on how we are tackling the issue of water quality and supply can be found on pages 32 & 35 of the 2019 Sustainability Report.

GRI 201-3 Defined benefit plan obligations and other retirement plans

Partial Reporting

Pension provision forms part of our total employment package, which is aligned to the needs of our employees and the markets in which we operate. We actively encourage employees to join our company pension schemes where available, but we realise that this is a personal choice.

Defined benefits plan coverage	
Number of employees covered by defined benefit Schemes	1,824*
Expressed as a percentage of Group	39.8%

*Please note that this figure only includes employees in active pension schemes and does not include Incotec employees or locations that have a private pension plan.

Further details regarding our retirement benefit liabilities, including our defined benefit schemes can be found in the 2019 Annual Report.

GRI 201-4 Financial assistance received from government

During the year, no significant financial assistance was received from governments and we have no governmental shareholders.

Procurement Practices

GRI 204-1 Proportion of spending on local suppliers

Partial reporting

Where goods and services of the right cost and quality can be purchased by manufacturing plants in their own country from local suppliers operating in the same country, then the sites will preferentially do this. The extent to which local sourcing is practiced across all the manufacturing sites is not currently measured.

Anti-corruption

GRI 205-1 Operations assessed for risks related to corruption

Partial Reporting

Identification of organisational risks relating to corruption was undertaken by overlaying the territorial analysis of turnover with the risk corruption index map from a recognised provider ([Transparency International](#)). Territories identified as being at higher risk of corruption and which generated material turnover were discussed in more detail with locally knowledgeable management to identify any specific areas of concern.

Further details on risk management can be found on pages 38-43 of our 2019 Annual Report.

GRI 205-2 Communication and training about anti-corruption policies and procedures

Following implementation of the Bribery Act 2010 in 2011, and as part of a wide-ranging compliance review, we instituted a Group wide training programme incorporating issues raised by this legislation.

Employees who are most likely to be exposed to bribery related issues due to their function or location are required to complete online training. The course involves employees being taken through numerous scenarios relevant to our business and it cannot be completed successfully without passing a test.

CRODA

In 2011, training was completed by all managers and non-managers who were identified, which was a total of 1,405 employees including 420 managers. A further 597 employees completed the course in 2012 and another 208 during 2013. In 2014, 194 people were trained, and all relevant new employees will be required to take and pass the test in the future. In 2015, 1056 people were trained, including those who have had to complete refresher training. In 2016, 318 people were trained.

In 2018 1,101 people were trained: 110 in North America, 76 in Latin America, 643 in Western Europe, 36 in the Middle East and Africa and 236 Asia Pacific.

In 2019, 517 people were trained: 52 in Latin America, 149 in Asia Pacific, 232 in Western Europe, 26 in Eastern Europe, Middle East and Africa and 58 in North America.

In addition to the online training, senior management received further guidance in respect of the Act, detailing how the Company's policies and procedures work to ensure compliance.

Further information on our approach to countering bribery and corruption can be found on the company website www.croda.com under company policies.

Anti-competitive Behaviour

GRI 206-1 Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes

Throughout the year there were no legal actions initiated under national or international laws against us for the purposes of regulating anti-competitive behaviour, anti-trust, or monopoly practices.

Tax

GRI 207-1 Approach to tax

Our tax strategy is a publicly available document, which sets out the approach to tax that the Group follows, covering the Group Tax Policy and the Group Tax Code of Conduct. It is available to all the Group's stakeholders. The published tax strategy is on our global croda.com website <https://www.croda.com/en-gb/investors/governance/company-policies>

Our tax strategy is reviewed and updated annually by the Group Tax department, approved by the Board of Directors and updated strategy is published on the website.

The Group Tax Policy within the Group Tax Strategy outlines compliance with all relevant tax laws, rules, regulations, and reporting and disclosure requirements, in all the jurisdictions where we operate. The Group Tax Code of Conduct also covers compliance with laws, rules and regulations and our approach to regulatory compliance.

As outlined in the Group Tax Policy (point 2), the Group ensures the tax strategy is at all times consistent with the Group's overall strategy (which has sustainable development at its core), its approach to risk, and the Group's values.

GRI 207-2 Tax governance, control, and risk management

Point 3 within our Group Tax Code of Conduct covers governance, assurance and Tax Risk management.

Our Group Financial Controller and Group Financial Director and ultimately the Audit Committee are accountable for compliance with our tax strategy.

Country level tax compliance and adherence to the Group tax strategy is managed by local finance and management teams.

Local and regional Finance Directors implement the group tax policy and are responsible for tax compliance within their regions. Our Group Finance Controller and Group Tax Department provide oversight and support.

Ongoing and emerging tax risks are identified, managed and monitored through the Group Tax and Treasury Risk register, which is regularly updated and monitored by the Group Financial Controller and the Group Tax and Treasury department.

We perform annual self-assessments at an entity level within the Group through the Financial Controls and Assurance Reviews (FCAR) which includes the tax governance and control framework. Completed FCARs are submitted to the Vice President, Risk and Control. All entities are subject to the Group internal audit process on a periodic basis, which include the tax governance and control framework.

Our group ethics programme, fraud policy and the whistleblowing policy are all zero tolerance policies and provide mechanisms for reporting concerns about unethical or unlawful behaviour and the organisation's integrity in relation to tax. Any concerns in relation to tax are directly escalated to the Group Financial Controller. Ultimately, the Group Ethics committee (a subset of Group Executive committee) has oversight on these matters.

Disclosures on global tax are provided through well proven processes via the group consolidation system and local Finance Directors have responsibility for the accuracy of information. Information reviewed by the Group Tax Department and then audited as part of external assurance programme. External audit opinion includes corporate tax and relevant tax disclosures within the published accounts.

GRI 207-3 Stakeholder engagement and management of concerns related to tax

As part of our Investor Relations process – any tax questions from stakeholders would be answered via conference calls, face to face engagement, questions answered via direct communication with company, employee engagement and with relevant tax authorities in respect of employment taxes; customers (VAT compliance) and overall ethics compliance. Due consideration is given to tax questions and answered by competent professionals.

In accordance with the Group Tax Strategy, we have an open dialogue and transparent relationships with tax authorities and ongoing engagement wherever we operate. When governments look to develop or change tax policy, they seek input from a range of interested stakeholders, we participate both directly and via our tax advisors to provide our corporate perspective.

Environmental Performance

GRI 305-7 Nitrogen oxides (NO_x), sulphur oxides (SO_x), and other significant air emissions

Partial Reporting

Our primary focus is on reducing our direct CO₂ outputs. However, we do continue to monitor and set targets to reduce our Volatile Organic Compound (VOC) emissions. Our current target is a 10% reduction in total Group VOC emissions by 2020 from a 2015 baseline. Despite increased production volumes, in 2019 our VOC emissions were within 1% of our 2015 emissions. We measure VOC at the ten manufacturing sites where it is a material issue for us.

Other significant emissions (kg)	2015	2016	2017	2018	2019
VOCs	157,163	139,191	158,939	154,490	135,704

We do not measure persistent organic pollutants, hazardous air pollutants or particulate matter because we emit zero or very negligible amounts at our manufacturing sites, so it is not considered material.

We are no longer reporting NO_x and SO_x emissions as these are included in our Scope 1 – Scope 3 GHG emissions as CO₂ equivalents.

GRI 306-1 Water discharge by quality and destination

In 2015 we set a target to reduce total Group water withdrawal by 10%, based on 2015, by the end of 2020. We are on track to meet this target with our total water consumption in 2019 being 17.4% lower than the baseline year of 2015.

Our compliance with effluent discharge consents for 2019 was 94.3% down 5.5% based on our 2015 figures. There remain four sites that have occasional issues with wastewater, usually down to external factors such as weather. Therefore, in 2016 we took the decision not to continue with effluent discharge compliance as a public target. Internal monitoring continues to maintain tight control of our effluent treatment plants.

Total volume of planned and unplanned discharges (m ³):	2015	2016	2017	2018	2019
Effluent discharged directly to river	6,290,125	5,996,557	5,797,942	5,155,901	4,683,355
Effluent discharged to local biological treatment works	1,155,547	1,208,714	1,279,423	1,446,328	1,276,071
Total discharged	7,445,672	7,205,271	7,077,365	6,602,229	5,959,426

Data reported quarterly by our 19 manufacturing sites and is taken from utility company invoices or from direct reading. Compliance of samples analysed, and results are compared against consent limits issued by local regulators for those manufacturing sites which have a permit to discharge.

GRI 306-2 Waste by type and disposal method

We recognise that the deposition of waste to landfill is not sustainable, permanently modifying land and potentially introducing contamination to both air and water. In 2015 we set a target to reduce Group waste to landfill by 10% by the end of 2020. As of the end of 2019 we are ahead of target having achieved a 27% reduction in waste to landfill since 2015.

Total waste by disposal method (t)	2015	2016	2017	2018	2019
Total landfill waste	2,106	2,053	1,771	1,733	1,537
Total incinerated waste	5,099	6,116	6,092	2,937	2,910
Total other waste disposal routes	22,336	26,709	32,477	36,261	37,662
Total recycled or recovered	19,202	17,971	22,003	26,235	22,643
Total waste	48,743	52,849	62,343	67,166	64,752

Non-hazardous waste by disposal method (t)	2015	2016	2017	2018	2019
Landfill waste	1,828	1,740	1,430	1,616	1,432
Incinerated waste	2,049	2,419	2,535	2,653	2,365
Other waste disposal routes	21,062	25,410	31,119	34,584	35,836
Recycled or recovered	15,827	15,879	19,163	23,493	20,292
Total non-hazardous waste	40,765	45,448	54,247	62,346	59,925

Hazardous waste by disposal method (t)	2015	2016	2017	2018	2019
Landfill waste	278	313	341	117	105
Incinerated waste	3,050	3,697	3,557	2,937	2,910
Other waste disposal routes	1,274	1,299	1,358	1,677	1,826
Recycled or recovered	3,375	2,092	2,840	2,741	2,350
Total hazardous waste	7,976	7,401	8,096	7,472	7,191

Method of disposal determined either directly by audit or provided by the waste disposal contractor. We do not dispose of waste by composting, reusing or on-site storage. Data reported for manufacturing sites only.

GRI 306-3 Significant spills

During 2019, we are happy to report that no significant spills occurred.

GRI 307-1 Non-compliance with environmental laws and regulations

During 2019, we are happy to report that no non-compliance notifications were issued to Croda International Plc.

GRI 308-1 New suppliers that were screened using environmental criteria

We work hard to ensure that the social and ethical sustainability of our supply chain. In 2016, we began our partnership with Sedex (Supplier Ethical Data Exchange) Sedex Membership Number: ZC1010722. This involved asking 200 of our suppliers, based on their geographical location and raw material origin, to register with Sedex and complete their questionnaire, achieving a 70% completion rate. We are now working with EcoVadis and use Corporate Social Responsibility (CSR) Rating Methodology. In 2018 we carried out a pilot trial with them targeting our top 100 suppliers by value, plus a further 42 high risk suppliers from across all our regions. This work is currently ongoing, but 50% of the invited suppliers connected with us during the year through the platform.

Employment

GRI 103 – Management Approach

We employ 4,580 people in 38 countries worldwide.

Through our global competency framework, developed by Group HR and managed by HR Managers in each of the regions in which we operate, we can ensure recruitment practices across the Group identify the people with the right skills, knowledge and attitude. Our proven track record of successfully developing future leaders from within has resulted in a consistently pleasing employee turnover rate, which is reported to the Executive Committee on a quarterly basis to monitor any potential problem areas before they have a negative impact on the business.

Our Regional Boards retain control over their remuneration and benefits packages. Through a series of previous employee surveys, which will be repeated regularly in the future both at regional and global level, Group HR are able to share learning's on the expectations of our employees with these management teams, and at Group Executive Committee level to ensure that our approach is effective and consistent. Exit interviews also allow regional HR teams and Group HR to see if compensation and benefits are a problem in any part of the business, so that they can act accordingly.

GRI 401-1 New employee hires and employee turnover

Partial Reporting

In 2019, voluntary and involuntary employee turnover across the Group was 10.76%.

Further details on how we are tackling the issue of recruitment and retention can be found in the "Fundamentals" section of our 2019 Sustainability Report.

GRI 401-3 Parental Leave

Partial Reporting

A total of 48 employees took parental leave in the UK in 2019. The parental leave categories are Maternity Leave, Paternity Leave, Adoption and Time off for dependants.

Maternity Leave	Paternity Leave	Adoption	Time Off for Dependants
25	16	0	7

All policies relating to parental leave are freely available on our company intranet and will, as a minimum, comply with the highest legislative requirement in any country in which we operate.

Training and Education

GRI 103 – Management Approach

Our business is only as good as our people. We are committed to building a global workforce that will help us achieve sustained success. To do this, we must attract the right 'talent', then continue to develop skills and abilities so we can capture the critical knowledge that we rely on to drive innovation and growth.

Our global competency framework, developed by group HR and implemented by the regional HR teams, provides the basis for employee development plans, which are monitored through our global appraisal system, My Croda. In addition, our highly trained regional HR teams provide ongoing support, coaching and development to our line managers across all business operations to ensure that they are fully equipped and capable of having effective and constructive performance and development conversations. Our global appraisal system also facilitates this process and allows group HR to oversee performance management, so that it can offer support and guidance where and when needed.

Employee underperformance is identified during the annual talent review process and carefully managed through the regional businesses to ensure that we see improved performance quickly. Our

global HR database also allows performance in relation to absence to be monitored and reviewed at regional and global levels.

GRI 404-1 Average hours of training per year per employee

Partial Reporting

It is only through the continual development of our workforce that we will be able to meet the future demands of our customers in relation to enhanced creativity, innovation and service.

Our global competency framework and Cornerstone performance management system, My Croda, allows us to monitor the development, performance and potential of each of our employees. To help grow and retain our talented people, we must continue to invest both internally and externally in training programmes, graduate and apprenticeship schemes, coaching, leadership development and supporting those studying for formal qualifications.

Average hours of training per employee	
Total hours of training for all employees	105,579
Employees receiving training (as percentage of group)	3,606 (78%)
Average hours of training per employee	23.5 hours
Average hours of training for those who received training	29.3 hours

We are currently unable to report average training by gender or employee category due to limitations of our reporting systems.

Further details on how we are tackling the issue of talent management and employee development can be found on pages 30 & 34 – 36 of the 2019 Sustainability Report.

GRI 404-2 Programmes for upgrading employee skills and transition assistance programmes

Partial Reporting

A Croda, we promote learning and training at all levels of our organisations, with 78.7% of our employees receiving training during the year. We offer a variety of training options including internal training courses delivered by our human resources department, funding for external training courses where relevant training cannot be provided internally, as well as funding and support for educational development. Several employees have completed part-time or distance learning degree programmes

relevant to their position or career development, both funded and supported by the company. Where applicable we also bring in the expertise of external training providers to enhance the skills and behaviours of our employees.

The quality and relevance of training and development activities became more focused in 2015, through improvements in the identification of personal development needs. The launch of our internal 'Learning Module' within My Croda in 2018 has taken our performance development, learning delivery and accessibility to the next level, allowing all employees to have access to the training that is most relevant to them.

Further details on how we are tackling the issue of talent management and employee development can be found on pages 30 & 34 – 36 of the 2019 Sustainability Report.

GRI 404-3 Percentage of employees receiving regular performance and career development reviews

Partial Reporting

In 2018 we introduced a new Performance Management System as part of a wider implementation of a new integrated global HR system called 'My Croda'. During 2019, 3,861 employees used this system, and over 56.4% entered their objectives into the system. So far in the first four months of 2020, 91% of those had an appraisal to recognise their achievements and identify training needs. We have also introduced a complementary new Learning Management System, which will greatly increase the number of online training courses available across the business in multiple languages.

To support the delivery of our suite of development programmes for managers and aspiring leaders, in 2019 we also partnered with Ashridge-Hult Business School which is helping us update and expand the content within several the programmes we offer. We are currently unable to report by gender or employee category due to limitations of our reporting systems.

Diversity and Equal Opportunity

GRI 103 – Management Approach

As a truly global company, it is important that we provide an inclusive work environment that ensures everyone, whoever they are and wherever they are in the world, can be supported to give their best.

A key issue for us, and many of our industry peers, is the underrepresentation of women in senior positions. Improving this is a primary objective of our business. To assist with this important goal, and to see how we can better provide the right environment and support for diversity in our teams, in 2018 we established a full-time role of Diversity and Inclusion Manager and set up a Diversity and Inclusion Steering Committee.

The role of the Steering Committee is to provide a global network of ambassadors for diversity and inclusion (D&I) who will shape our work, share ideas and best practice and help to promote activities in this area. The Committee meets on a quarterly basis and is made up of representatives from our five regions and three core market sectors.

Read more: page 27, 2019 Sustainability Report

GRI 405-1 Diversity of governance bodies and employees

Partial Reporting*

Diversity and Inclusion is a key priority for us, and it is one of the 14 Material Areas of our sustainability programme.

We aim to embrace and empower all individuals. We do this by supporting, valuing and respecting our workforce, and ensuring that all employees feel empowered and included. In this way, we attract and retain the right people and bring out the best in them to benefit from their expertise.

Gender breakdown:

Employee category	Male	Female
Board of Directors	6	3
Executive Committee	7	2
Regional and Business Board Members and Senior Functional Heads	290	146
Total workforce	3,049	1,531

Age breakdown:

Age	Total (%)
17-25	6
26-35	28
36-45	27
46-55	25
56-65	13
66+	1

*Figures correct as of 31st December 2019.

We are currently unable to report minority groups or age by employee category due to limitations of our reporting systems or regional confidentiality of data.

Further details on how we are tackling the issue of diversity and inclusion can be found on page of the 2019 Sustainability Report.

Freedom of Association and Collective Bargaining, Child Labour, and Forced or Compulsory Labour

GRI 103 – Management Approach

We constantly safeguard our employees, our customers, our supply chain and our communities by ensuring that we are compliant with policy and regulation requirements across the markets and countries in which we operate. To embrace the challenges of a

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changing environment, increasing populations and decreasing resources, policy and regulation are becoming more demanding at national, international and industry level.

Responsibility for the proactive and reactive response to policy and regulation sits across all levels of the business. Group HR operate a global database of policies that are updated on a regular basis relevant to our employees, and our Group legal, PSRA and SHE teams work to ensure that we are abreast of all policies and regulations relevant to our products, processes and operations.

Group policies are set centrally and must be applied in all countries in which we operate. Group policies will, as a minimum, comply with the highest legislative requirement in any country in which we operate. It is the responsibility of our regional boards to ensure that group policies are communicated and that there are procedures in place to ensure compliance. Any employee whose actions constitute a breach of any policy, procedure or guideline may be liable to disciplinary action. All policies are freely available on our company intranet and include our:

- Code of Conduct
- Code of Ethics
- Fraud Policy
- Whistle Blowing Policy and Procedure
- Anti-Bribery and Corruption Policy

In addition to group policies, we have regional and country specific policies and procedures to reflect the employment legislation and practices in that location.

Our nine applicable policies are consistent with the spirit and intent of the ILO declaration. These are accessible to all employees and are published on our company intranet.

GRI 407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk

We recognise that every employee has the right to join or remain a member of a trade union if they wish to do so. Equally the Company recognises that every employee has the right not to join or to leave a trade union if they wish to do so. The company will not seek to persuade any employee, potential or otherwise, to join or leave any trade union or other workers' association.

Unless local legislation or legitimate collective agreement requires an alternative approach, the company will operate as follows:

- During the recruitment process, the company will not refuse employment on the grounds of trade union membership or non-membership nor will it stipulate that membership or non-membership is a condition of employment. The company will not specify union membership requirements in recruitment adverts and will not require or expect employment agencies acting on our behalf to do so.
- During employment, the company will not dismiss, select for redundancy, or allow the detrimental treatment of any employee based solely on the grounds of whether they are a member of a trade union or not. Members of trade unions will also not be dismissed, selected for redundancy, or suffer any other form of detriment for taking part in union activities or making use of union services; and
- Where local accounting and social security procedures and legislation allow, the company will enable union members to pay their union subscriptions by deduction from their wages. Employees who wish to take advantage of this should make their request in writing to their local pay department, requesting the deduction be made. Similarly, adequate notice must be given to change this arrangement. The individual will then be responsible for ensuring their membership subscriptions are continued.

Whilst all employees have the right to choose whether to be a member of a trade union or not, only where there is a specific current local agreement are unions recognised to communicate, negotiate, or consult on behalf of their members.

Issues concerning violation of employee rights within our supply chain are addressed in the Supplier Code of Conduct document which has been mailed to suppliers in all regions.

Child Labour

GRI 408-1 Operations and suppliers at significant risk for incidents of child labour

We ensure our policies are consistent with the spirit and intent of ILO's Declaration on Fundamental Principles and Rights at work, where applicable to business.

Utilising thorough checks during the recruitment process and the Child Labour Index and Map, produced by global risks advisory firm Maplecroft, we have been able to evaluate risks relating to child labour within our operations.

Issues concerning violation of child labour within our supply chain are addressed in the Supplier Code of Conduct document which has been mailed to suppliers in all regions.

Forced or Compulsory Labour

GRI 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour

We ensure our policies are consistent with the spirit and intent of ILO's Declaration on Fundamental Principles and Rights at work, where applicable to business. At Croda, we comply with the labour laws of the countries in which we operate and would never endure forced or compulsory labour anywhere in the world.

Issues concerning violation of forced or compulsory labour within our supply chain are addressed in the Supplier Code of Conduct document which has been mailed to suppliers in all regions.

Transparency within our supply chains is of key importance to us. All our suppliers must go through an approval process where we check their quality systems and performance. We completed our initial work with Sedex (Supplier Ethical Data Exchange), which involved asking 200 of our suppliers based on their geographical location and market origin, to register with Sedex and complete their questionnaire. We have analysed results from suppliers and started to risk assess them developing a process flow diagram to help us act where necessary. In 2019, our corporate ethics committee will continue to engage with, and assess, suppliers in countries where there is a higher risk of modern slave labour.

Local Communities

GRI 103 – Management Approach

We add value to local communities around the world through educational initiatives and by encouraging employees to get involved in local good causes. This approach is key to establishing the strong local relationships that are essential to maintaining our social licence to operate, particularly in a world where global drivers indicate that trust in business is becoming more uncertain.

At Croda, our community involvement is facilitated through a programme called the 1% club, which allows all employees across the group to utilise 1% of their working time to support appropriate community projects. The 1% club is adapted to suit the local needs and legislative environment of the regions in which we operate, but in every form the guiding principle is action that supports the community through direct involvement.

It is the responsibility of our regional boards to ensure that the 1% club is available and managed correctly in their operations. Additionally, a network of 1% club champions, one at each of our operations, assists with the coordination of activities on a day to day basis.

In addition, it is the responsibility of each of our regional boards to define and implement a local programme of activities that is appropriate to support the teaching of science, technology and engineering across any chosen age group between the ages of 5 and 21. Our aim is to align the learning needs of individuals with the scientific knowledge and history of our organisation. Our 1% club champions support community education by building relationships with local schools, colleges and universities. Annual regional plans will help target the specific needs of the educational institutions we support and will also identify the employees who can enhance their personal skills through this type of activity.

GRI 413-1 Operations with local community engagement, impact assessments, and development programmes

Interaction with local communities has always been a major part of our culture. We are aware that our activities have a direct impact on the communities surrounding our operations, particularly our manufacturing sites and large offices.

‘Community Education & Involvement’ is one of the 10 Material Areas of our sustainability programme, and all our locations proactively work to add value to local communities where they

operate. This is because it satisfies our corporate desire “to do the right thing”, ensuring that we invest in our communities and play our part in ensuring they are appropriately supported and also because it is a great way to motivate employees, helping them to feel that they are part of a business that values the communities in which it operates.

We focus on two key areas: community education initiatives and employee volunteering for local good causes. These activities are key to establishing the strong local relations that are essential to maintaining our social licence to operate and are facilitated through our award-winning employee volunteering scheme, 1% club.

Since the global launch of the 1% club in 2010, we have seen a significant increase in activity and participation, largely through our network of 1% club champions. These champions work at every site that we operate to ensure our community activity meets local needs and that all of our operations take ownership of their engagement activities.

We believe that enhancing our investment in community education will only serve to further improve our external reputation, thus leading to a positive impact on our ability to recruit new personnel. Our business is steeped in scientific heritage and our business model is based on the delivery of market led innovation. Also, with the number of students studying science, engineering and technology in decline, we feel that we have a duty to encourage and educate young people about the benefits of a scientific education.

Further details on how we are tackling the issue of community engagement, involvement and education can be found in our 2019 Sustainability Report.

Public Policy

GRI 103 – Management Approach

Our overall commitment is to uphold the principles of socially responsible business practices and respect the interests of everyone affected by its activities and actions, including our employees, customers, suppliers, shareholders and the general community at large.

It is our policy to conduct our business at all times and throughout the world with honesty and integrity and we operate a range of policies covering all areas of our business. We believe that all our stakeholders wish to be associated with an ethical organisation which publicises and upholds high standards in all that it does. Our Code of Ethics states that: -

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- We will comply with the law in each country in which we do business including laws relating to unfair competition/anti-trust.
- We will not offer to pay, solicit or accept bribes in any form whether directly or indirectly. This includes payment or receipt of "facilitation payments" which are small payments or gifts made as common practice in some countries to obtain approvals, permits, etc. more speedily – they are still bribes. We promote measures to eliminate these types of payment. Employees should ensure they comply with all local laws and regulations. If you are requested to make a payment which you believe may be a facilitation payment you should consult your line manager.
- We will only give or receive gifts and entertainment that are not material or regular. Local management in each country will establish guidelines reflecting local custom as to the maximum permitted value and the circumstances in which such gifts and entertainment are acceptable.
- We will record in our published accounts all material assets and liabilities and not maintain secret accounts.
- We will not make political donations anywhere in the world.
- We will not engage in commercial espionage or covert surveillance of our competitors.

Failure to comply with this code may result in disciplinary action. All employees have the right to make confidential reports direct to the company secretary of Croda International Plc at Cowick Hall, Snaith, East Yorkshire DN14 9AA, United Kingdom, without fear of detrimental action being taken against them.

GRI 415-1 Political contributions

Our Code of Ethics states that "We will not make political donations anywhere in the world." The full Code of Ethics can be found on www.croda.com under company policies. No donations were made for political purposes during the year, in accordance with our Code of Ethics.

Glossary

Report abbreviations

TERM	DEFINITION
%	Percent
£	Pounds Sterling
£M	Million Pounds Sterling
AGM	Annual General Meeting
ASD	Action for Sustainable Development
CDP	Formerly Carbon Disclosure Project
CH ₄	Methane
CO ₂	Carbon Dioxide
COD	Chemical Oxygen Demand
CSR	Corporate Social Responsibility
D&I	Diversity and Inclusion
ECHA	European Chemicals Agency
EEMEA	Eastern Europe, Middle East and Africa
EFSA	European Food Safety Authority
EO	Ethylene Oxide
ERP	Enterprise Resource Planning
ESG	Environmental, Social and Governance
FDA	Food and Drug Administration
GHG	Green House Gas
GHS	Global Harmonizes System
GJ	Gigajoule
GPS	Global Positioning System
GR	Genetic Resource
GRI	Global Reporting Initiative
GSSC	Group Sustainability Steering Committee
HFCS	Hydrofluorocarbons
HR	Human Resources
ILO	International Labour Organization
ISO	International Organization for Standardization
KPI	Key Performance Indicator
LCA	Life-cycle Assessment
LTI	Lost Time Injuries
M ³	Cubic metre
ML	Mega Litre
MSDS	Master Safety Data Sheet
N ₂ O	Nitrous Oxide
NGO	Non-Governmental Organisation
NO _x	Nitrogen Oxides
NPP	New and Protected Products
OSHA	American Occupational Safety and Health Administration
OSHAS	Occupational Health and Safety Assessment Series
P	Pence
PFCS	Perfluorinated Compounds
PLC	Public
PSRA	Product Safety and Regulatory Affairs
R&D	Research and development
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RSPO	Roundtable on Sustainable Palm Oil
SAC	Special Area of Conservation
SDG	Sustainable Development Goal
SEDEX	Supplier Ethical Data Exchange
SF ₆	Sulphur hexachloride
SHE	Safety, Health & Environment
SHEQ	Safety, Health, Environmental and Quality

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SO_x	Sulphur Oxides
SPA	Special Protection Area
T	Tonnes
T&D	Transmission and Distribution
TCO_{2E}	Tonnes CO ₂ equivalent
TPA	Tonnes per annum
TRIR	Total Recordable Injury Rate
UK	United Kingdom
UN	United Nations
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
USA	United States of America
UV	Ultraviolet
VOC	Volatile Organic Compounds
VP	Vice President
%	Percent
