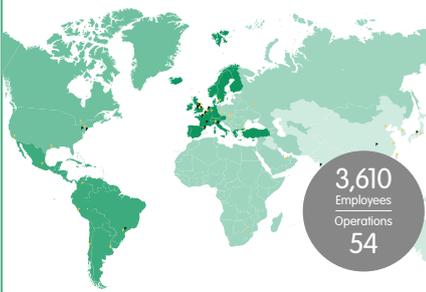


# Being Different

## Sustainability Report 2014



We are a speciality chemical manufacturer who, through the imaginative and practical use of science, create ingredients and technologies that improve people's lives by enhancing everyday products.

<p><b>Who We Are</b> Our Business at a glance <span style="float: right;">p02</span></p> 	<p><b>Our Value Chain</b> Maximising opportunities for growth <span style="float: right;">p04</span></p> 	<p><b>Chief Executive's Statement</b> We are passionate about sustainability <span style="float: right;">p06</span></p> 
<p><b>Our Business Model</b> Structured for success <span style="float: right;">p07</span></p> 	<p><b>Our Materiality</b> 10 Material Areas <span style="float: right;">p11</span></p> 	<p><b>Global Reporting Initiative (GRI)</b> GRI G4 content index <span style="float: right;">p42</span></p> <p>Throughout this report look out for:</p> <ul style="list-style-type: none"> <li>GRI General Disclosures</li> <li>GRI Specific Disclosures</li> </ul>

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Download the 2014 Annual Report and Accounts at [www.croda.com/annualreport](http://www.croda.com/annualreport)

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This report covers the sustainability performance of Croda International Plc for the period 1 January 2014 to 31 December 2014. 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. We acquired the assets of JD Horizons and AM Coatings during 2014. These assets have been integrated into our existing business structure and are, therefore, not separately reportable operations within this report.

# Our Highlights

## Revenue

£1,046.6m  
-2.8%

2013: £1,077.0m

## Adjusted Operating Profit\*

£248.4m  
-6.1%

2013: £264.6m

## Earnings Per Share

121.9p  
-7.1%

2013: 131.2p

## Dividend Per Share

65.5p  
+1.6%

2013: 64.5p

## Group Energy from Non-Fossil Fuel Sources

25.5%  
+1.3% points

2013: 24.2%

## Lost Time Injury Rate Per 100,000 Hours Worked

0.21  
Improved

2013: 0.31

## Employees Receiving Training

91.2%  
+7.2% points

2013: 83.8%

## Employee Volunteering

6,879 hours  
+56.8% points

2013: 4,387 hours



Founded in 1925, we celebrated 50 years as a public listed company in 2014, the only chemical company remaining on the UK stock market from the 32 listed in 1964.

\* Before exceptional items, acquisition costs and amortisation of intangible assets arising on acquisition

# Who We Are

## Our Business at a glance

We deliver high performance ingredients to thousands of leading companies, in industries as diverse as their locations are widespread. Our new global structure, leveraging our continued focus on research and development and innovation, improved both our market alignment and close customer contact in 2014.

### Aligned to Our Target Markets

Across all four of our market sectors we work in partnership with our customers to design ingredients that enhance everyday products. We manufacture globally and sell directly to our customers.



#### 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.

Revenue	Adjusted Operating Profit
£369.1m	£117.3m

#### Life Sciences

Our Life Sciences market sector comprises two complementary businesses, Health Care and Crop Care. 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.

Revenue	Adjusted Operating Profit
£204.5m	£64.7m

#### Performance Technologies

Performance Technologies delivers high added value additives to a wide range of niche markets. It is organised into five business areas: Lubricants supplies automotive and industrial lubricants companies; Coatings and Polymers serves the coatings, adhesives and speciality polymers markets; Geo Technologies supports customers in oil and gas, water treatment and mining; Polymer Additives sells into the plastics and packaging sector; and Home Care serves household product manufacturers, as well as industrial cleaning companies.

Revenue	Adjusted Operating Profit
£355.2m	£63.8m

#### Industrial Chemicals

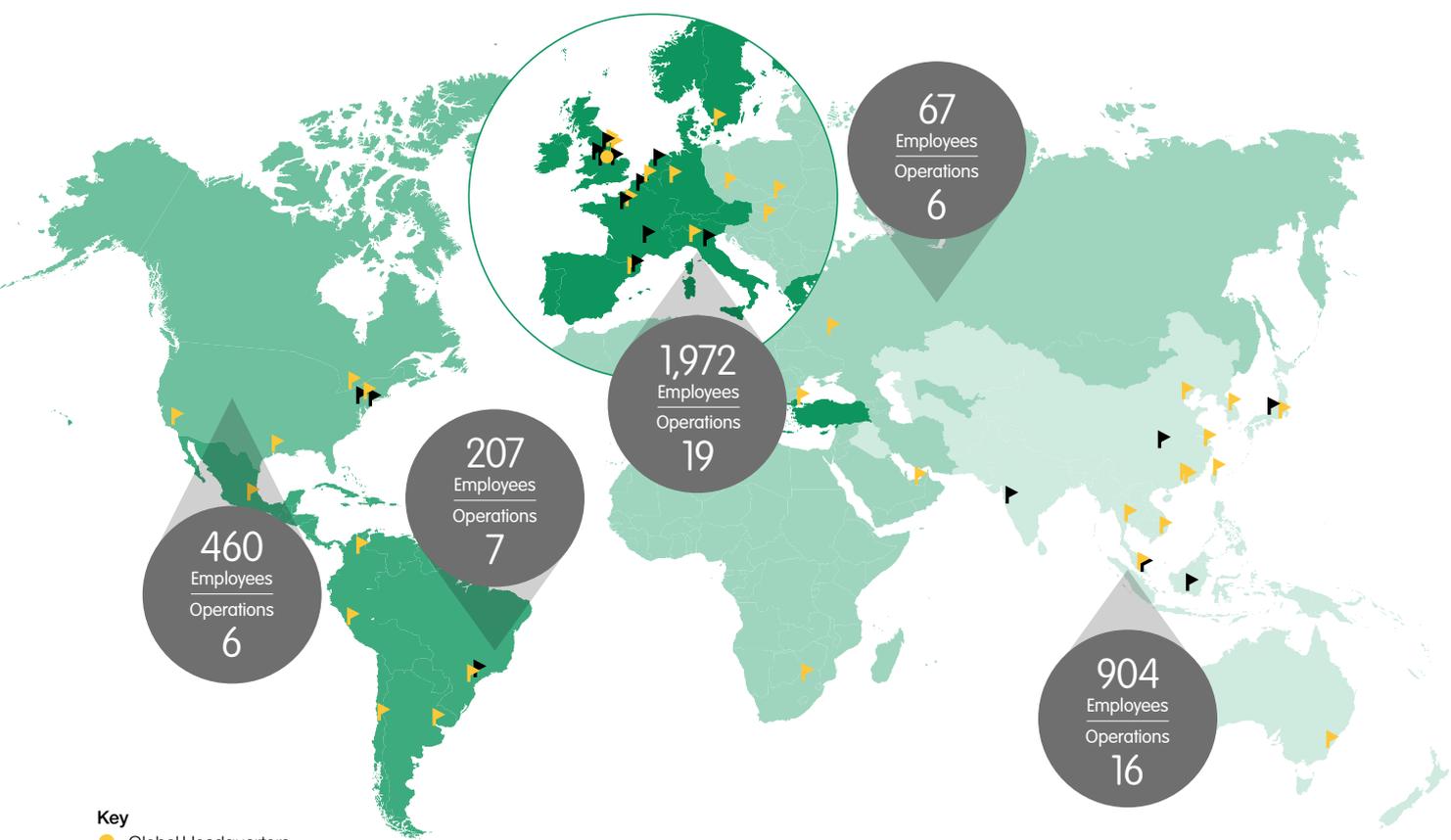
Our Industrial Chemicals market sector sells a range of co-streams produced during the manufacture of core sector products and undertakes toll processing. Whilst primarily higher in volume and lower in margin, the sector is also developing niche ranges of specialist materials for thermal management, catalysts, electronics, advanced ceramics and other industrial applications.

Revenue	Adjusted Operating Profit
£117.8m	£2.6m

## A Diversified, Global Business

Every day our global team work together to deliver amazing science, technology and expertise to solve customer challenges, whilst doing business sustainably.

Countries **34**      Operations **54**      Employees **3,610**



**Key**  
 ● Global Headquarters  
 ▲ Manufacturing Sites  
 ▼ Sales Offices

### North America

Revenue  
26.4% of Group total  
**£276.4m**

### Latin America

Revenue  
10.6% of Group total  
**£110.5m**

### Western Europe

Revenue  
37.0% of Group total  
**£387.1m**

### Eastern Europe, Middle East & Africa

Revenue  
6.8% of Group total  
**£71.2m**

### Asia Pacific

Revenue  
19.2% of Group total  
**£201.4m**

# Our Value Chain

## Maximising opportunities for growth

The world is changing fast. To ensure that we can meet our customers' needs and, therefore, the demands of consumers, we continuously evolve aspects of our Business, products and supply chain. To future proof our Business, we draw on six global drivers that offer us opportunities for growth.

### Global Drivers

The global drivers we have identified to be of most importance to our Business are:

- **Mass population growth, ageing and polarisation:** The global population is set to grow to nine billion by 2050, with an expanding elderly population and the gap in wealth and health increasing
- **Changing expectations and behaviours:** Consumers are demanding that businesses are more transparent and take greater responsibility for their operations and their suppliers
- **Scarcity of natural resources:** Pressures on food, water, fuel and other natural resources require a new approach to consumption and re-use
- **Climate change:** As rising temperatures compromise habitats and resources, carbon reduction is an increasing priority
- **Shifts in the global economy:** Growth in the developing world is outstripping that in established markets, leading to new centres of power and an expanding urban middle class
- **Challenging legal and regulatory environments:** Legislators are requiring ever higher standards of quality, safety and environmental and social protection

### Mega Trends

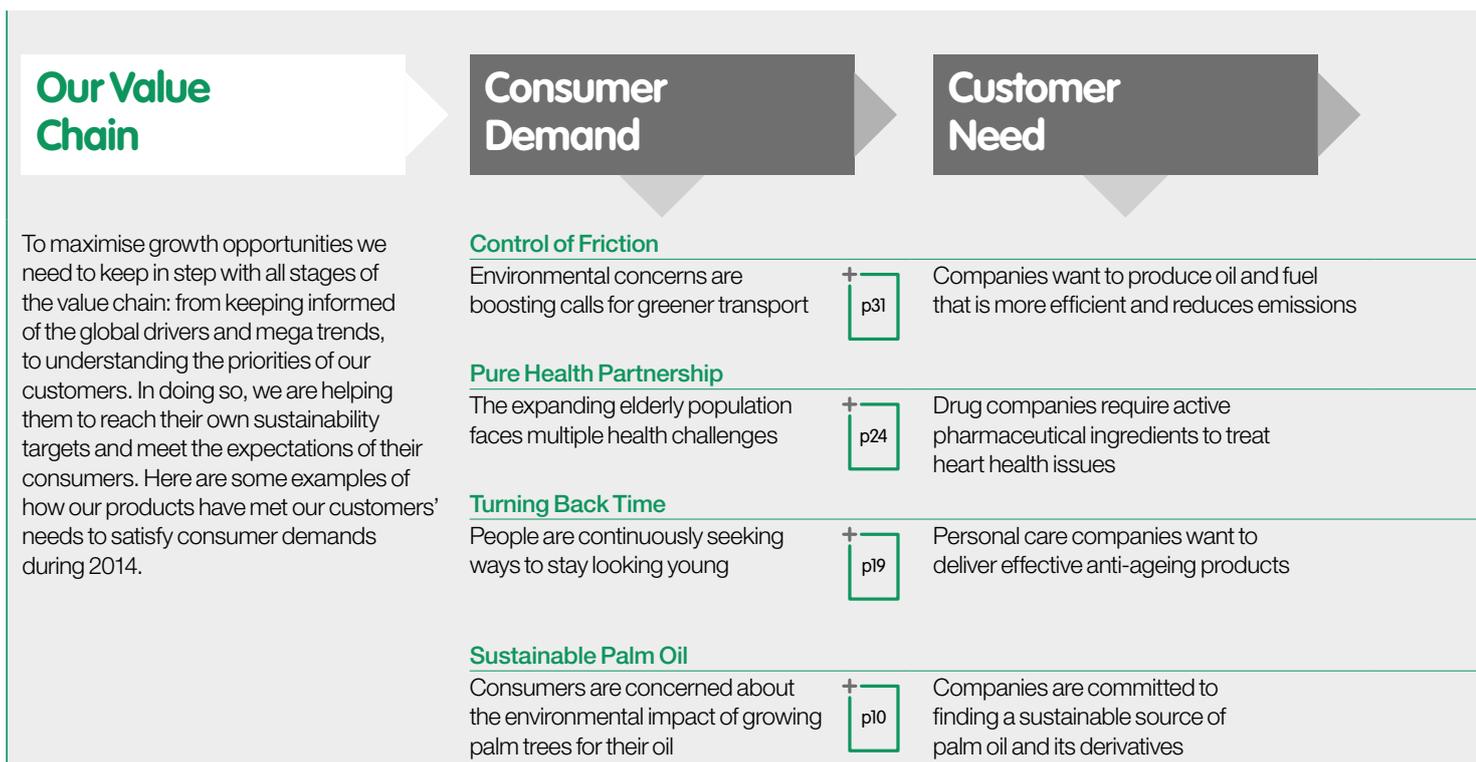
With the knowledge of these global drivers, and our understanding of the unmet needs of our customers, we have identified three mega trends that we believe will create new areas for us to innovate in the years ahead. These trends drive our business strategy as they are increasingly important to our core market sectors, which is why we must continue to have an ambitious investment programme to capitalise on these growth opportunities.

#### Beauty and ageing

Across the world people want to look and feel good. Fuelled by a growing global population and an expanding middle class with increased disposable income, demand for our ingredients will continue to grow as women and men, of all ages, are using personal care products. This trend is driving our customers to deliver many new niche products to meet the differing needs of consumers, such as sun protection for children and teenagers, collagen boosting products for older consumers and extending anti-ageing into hair care.

#### Health and wellbeing

Consumers are increasingly aware of the lifestyle choices they can make to improve their health. The growth of an ageing population, and an increasing disposable income for people in many parts of the world, is leading to more consumers using creams, ointments and



**Our Business Model (see p7)**



**Our Value Chain**



tablets to look and feel healthier. From treatment to prevention, we are seeing a number of exciting new niche opportunities around the world. For instance, the development of Omega 3 ingredients into pharmaceutical products for treating heart related conditions, along with their application into nutraceutical joint health supplements.

**Ingredient sustainability**

There is growing emphasis on sustainability in the majority of our business areas. We see it as an unstoppable mega trend driven by population growth and increasing consumption of goods. As greater strain is put on the world's scarce natural resources, consumers are increasingly looking for more sustainable products. We respond to these demands by supporting our customers' development of products that have a reduced environmental impact during manufacture, use and disposal. There are also calls for improved performance, purity and cost effective solutions, along with a drive for renewable raw materials. With around 70% of our ingredients derived from renewable sources, and our focus on consumer concerns such as sustainable palm oil, we are able to support this drive and, in doing so, help our customers to build valuable brands.

**Additional Strategic Factors**

The global drivers also highlight two other areas of strategic importance to us: movement into emerging markets and an increasingly rigorous regulatory environment.

**Emerging markets**

The rising population and increasing wealth in emerging markets offers new growth prospects, when those in the West have started to slowdown. To reflect this shift, we have expanded into the developing world, particularly in Asia. By moving closer to our customers, we can build close partnerships to develop ingredients that meet their market needs, therefore developing quicker and more sustainable solutions.

By continuing to recruit and develop employees in our new locations, we can continuously improve our knowledge of local cultures and build future generations of scientists and leaders.

**The regulatory environment**

Regulations continue to become more rigorous in all of our markets. Going above and beyond the regulatory minimum is 'what we do' in many areas of our Business, so we see this as an opportunity. We continue to strengthen our reputation by contributing to the development of external standards. By sharing our expertise in this way we are both supporting the regulatory environment and are able to stay abreast of changes ahead.

We are renowned for our product and service quality, which we maintain by ensuring that our robust quality assurance, risk and sustainability processes are embedded at all levels of our organisation. We are also skilled at providing assurance over our products' performance via our claims substantiation capability.



**Our ingredients reduce friction between moving parts and improve performance efficacy**

Our ingredients are added to the customer's product to increase fuel efficiency and reduce wear and tear

Drivers have more environmentally friendly transport that lasts longer

**Our product OmeRx™ is derived from Omega 3, which is a recognised treatment for hypertriglyceridemia**

Par Pharmaceuticals successfully markets OmeRx as a drug in North America

The drug supports patients with cardio vascular problems

**We develop high performance ingredients like the Matrixyl™ range, which repairs skin**

Matrixyl features in leading skin care brands to make an advanced anti-ageing claim

Consumer and beauty specialist feedback confirms that some of the products containing Matrixyl are amongst the best anti-ageing formulations ever

**We lead our industry in offering sustainable palm oil and palm kernel oil derivatives**

Companies can meet their sustainability targets by using our ingredients in their products

Discerning consumers can buy products with ingredients that support sustainable palm oil

# Chief Executive's Statement

We are passionate about sustainability, it is fundamental to who we are and what we do. It touches every area of our Business and our approach differentiates us in the eyes of our customers.



## Q. What does sustainability mean to Croda?

Sustainability is fundamental to who we are and what we do. It touches every area of our Business: from the way we design our products and run our manufacturing sites, to the way we work with our suppliers and engage with our communities.

Our first ever product, lanolin, has good sustainability credentials, and today around 70% of the raw materials we use to make our products are from natural, renewable sources.

## Q. Why is sustainability so important to you?

We are passionate about sustainability, not because we have to be, but because we think it is the right thing to do and our approach differentiates us in the eyes of our customers.

Consumers are increasingly demanding that companies take their environmental, social, as well as their financial responsibilities seriously. They want to be assured that we, rightly, place great focus on the sustainability of all of our activities. Although we don't sell directly to consumers, we support our customers in helping them make a difference. In doing so, we are helping our customers to meet their targets and the demands of their consumers, whilst creating a competitive advantage for ourselves.

## Q. Can you give a 2014 example of where you have created such competitive advantage through sustainability?

A very good example has been our partnership with customers and suppliers to meet the need for sustainable palm oil ingredients. The depletion of the rainforests by some palm tree growers has become a huge international issue in recent years.

Companies, particularly those in personal care, have been under great consumer pressure to find a sustainable solution. In 2014, we became the largest supplier of derivatives supporting sustainable palm oil and, by the end of the year, around 300 of our customers were receiving these ingredients around the world.

## Q. How has Croda performed against its own sustainability targets this year?

We have made progress in each of our 10 Material Areas, which has been very satisfying. Milestones have included:

- In the Environmental Impact area, we have increased our usage of non-fossil fuels beyond our 25% target one year ahead of schedule
- Our People, at all levels around the world, have developed both professionally and personally with another exceptional year of training hours, covering 91.2% of our employees
- In Product Design, we have extended the *12 Principles of Green Chemistry*, which is the basis of our research and development, to embed a 13th Principle that looks at the sustainability benefits of our products during use by our customers or their consumers
- In Community Education and Involvement, our people have really embraced the opportunity to support science in schools and have volunteered for a total of 6,879 hours across a very diverse range of good causes

## Q. Looking ahead, will you keep up your strategic emphasis on sustainability?

Absolutely! There is growing emphasis on sustainability in the majority of our markets. This will create more niche opportunities as consumers and our customers place an even greater priority on sustainability in the years ahead.

Steve Foots  
Group Chief Executive

# Our Business Model

## Structured for success

Our business model is driven by strong customer relationships and a focus on the sustainable production of innovative ingredients. Our close proximity to customers strengthens these relationships and gives us a competitive advantage. By delivering high performance ingredients for some of the biggest, most successful brands, we reach millions of consumers around the world.



### Intimate customer relationships mean that we...

understand what our customers, and their consumers want, meeting their current needs and anticipating their future goals.

design innovative ingredients by harnessing our technical expertise and using market insights in collaboration with customers. Our partnerships with world leading universities facilitate the development of new and novel technologies.

produce high quality, high value ingredients on a customer demand driven basis, as close to their manufacturing operations as possible.

market and sell directly to our customers of all sizes through local sales teams, dedicated to the customer and supported by R&D. We deliver directly to customers from local warehouses for speed and flexibility.

### A culture of innovation drives us, so...

we are inspired by the insights we gain through a deep understanding of our markets and close customer contact, not limited by our existing portfolio and technologies.

to complement our own technology development activities, our Technology Investment Group is dedicated to identifying and securing new technologies that will help us meet our customers' needs.

we think differently about where and how we manufacture, developing new production technologies that offer flexibility and security of supply.

we are able to manage complexity to ensure that our customers get exactly what they want: developing and supplying thousands of different ingredients to meet their specific needs.

### We do this sustainably by...

recognising growing consumer demand for sustainable products and aligning ourselves with our customers' sustainability objectives.

developing all new ingredients with due regard to the *12 Principles of Green Chemistry* and using natural, renewable raw materials wherever possible.

using raw materials from sustainable sources and working closely with our supply chains. We develop new ingredients from co-streams and invest in our own renewable energy.

offering ingredients that meet customer and consumer demands for low environmental impact and high performance.

### Our people make a difference, because...

from sales and research and development (R&D), to regulatory and marketing, we work as one team in close partnership with our customers to deliver safe and high performance ingredients.

our skilled scientists and engineers are excited about innovation and green chemistry. They are given the autonomy to use their skills in the development of new products and technologies.

our highly trained production teams have the expertise to design and operate complex manufacturing processes, whilst ensuring that safety and quality remain paramount.

our sales teams speak our customers' language, with market and industry training and experience. We provide regional workshops and webinars for our customers, so they can fully realise the potential of our ingredients.

# Our Responsibility

## Building a sustainable future

Sustainability is more than just a part of our business; it is integral to everything we do. Across all our functions and global locations, we approach sustainability holistically.

Our sustainability programme is built upon the six global drivers of change that we consider to be the most important to the future of our Business. These present both challenges and opportunities for growth. The mega trend of Ingredient Sustainability is an area where we can particularly differentiate our Business through the innovative design of our products (see p5).

Since 2013, the focus of our sustainability programme has evolved to address the global drivers and mega trends, which is defined by our Materiality.

### Our Materiality

Materiality is simply what matters most to us. In addressing the opportunities and challenges of most importance to our Business, we also consider all of our stakeholder needs, particularly those of our customers.

We have 10 Material Areas in our sustainability programme. Each has a long term objective and targets against which we report progress; internally through quarterly reports and externally through this Sustainability Report and our annual Global Reporting Initiative (GRI) report. Within our Material Areas we focus on a range of issues that have the potential to affect our future success, through the economies, environments and societies in which we operate.

### Materiality Review

Each year, our Sustainability Steering Committee, a group of experts from across the Business, reviews our Materiality with our Executive Committee (see p41). In 2014, we developed a number of our existing Material Areas to better reflect the importance of the opportunities and challenges we face today and those that we will face in the future.

This process incorporated the results from a global stakeholder survey, which was conducted in 2014 covering all aspects of our sustainability programme. It also considered other external factors, such as the Business in the Community (BITC) Forces for Change report and the ever expanding reporting landscape. In particular, the review looked at developments in GRI's G4 and frameworks including CDP, EcoVadis and SEDEX, to identify relevant aspects and assess our approach to addressing them.

Key updates to our Materiality in 2014 include the following:

- Policy & Regulation now sits within the new broader Material Area of Quality Assurance (QA), in line with the importance placed on QA by us and our stakeholders
- Palm Oil now sits within Product Stewardship, which has increased in scope to focus more heavily on responsible sourcing
- Health, Safety and Wellbeing has been relabelled Occupational Health and Safety. Our employee wellbeing is now addressed in Our People, which has been expanded having previously been Talent Acquisition & Development

### Our Materiality Matrix

In 2011, we developed a Materiality Matrix, which mapped the areas of highest impact to us compared to those of most importance to our stakeholders.

We updated this in 2014 following our global stakeholder survey and it now looks at the areas of most importance to the Business compared to those of our stakeholders.



# Shaping Sustainability

## Stakeholder engagement

It is critical to the future of our Business that we consider and take necessary action to meet the needs and expectations of our stakeholders.

We must take into account the sustainability issues facing our stakeholders in developing our Material Areas and defining our future targets.

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. In 2014, this included specific activities such as:

- **Customers and consumers:** We held over 38,000 meetings with our customers
- **Investors:** We sought one to one feedback on our sustainability programme from a number of our key investors during meetings where our strategic direction was discussed
- **Suppliers:** We held in excess of 2,000 face to face meetings with our raw material suppliers
- **Local communities:** 24.2% of our employees donated their time to a huge variety of community projects via our 1% Club
- **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 continued to work closely with the Roundtable on Sustainable Palm Oil, sponsoring and speaking at their key European event
- **Governments and regulatory bodies:** We are active members of over 220 national and international industry associations

**“Croda are very clear in their communications and have strong personalities who help to bring the sustainability strategy to life across their Personal Care business. This helps; it is important to have the link between the sustainability strategy and the customer interaction points.”**

Mike Hewer  
Global Sustainability Sourcing  
Johnson & Johnson

### Stakeholder Survey

In 2014, we surveyed our employees, customers, suppliers and local communities around the world on the issues addressed in the 10 Material Areas we established in 2013.

Some highlights from the survey responses include:

- Quality and safety are the most important themes to all stakeholders
- 100% of customers believe we are very transparent/transparent in communicating our sustainability programme
- 100% of customers and 67.7% of suppliers consider our sustainability programme to be a very important/ important reason to engage with us
- Process safety and employee safety are the priorities for the local communities in which we operate
- 57.3% of employees say our sustainability programme is a very important/important reason for working for us

The outcome of the survey was used to determine the relevance and robustness of our Material Areas and informed our updated Materiality Matrix (see p8).

### Sustainability and Risk

Issues identified in our Material Areas offer both opportunities and challenges, and in parallel, potential risks and also risk mitigation measures.

Our Business risks are defined in our risk registers at many levels throughout the Group (see ARA p28). These registers identify mitigating controls for all risks, which are reviewed by our Risk Committee on quarterly basis. The controls and monitoring that we have in place for both our Material Areas and our risk framework give us a comprehensive view of the actions we must take to safeguard the future of our Business in a sustainable way, whilst allowing us to identify and fully exploit new opportunities.

We are working closely with our risk management team to understand and define emerging risks arising in our Material Areas. The outcome of this work will ensure that:

- the risk register addresses each emerging risk;
- activities around each Material Area consider these emerging risks; and
- as we continue to develop our Material Areas, any emerging risks are assessed, captured in the appropriate risk registers and shared with the Risk Committee.

By continuing to manage our Material Areas and risks together we help to mitigate potential threats in these areas and maximise opportunities for future growth.

“Croda has proved to be a first mover and early adopter of solutions to source and deliver physical certified sustainable palm oil products. Through commitment and engagement with suppliers and clients, in 2014 Croda has played a key role in influencing others in the supply chain.”

Darrel Webber  
Secretary General  
RSPO

“Croda has made an important contribution to our initiative in supporting sustainable palm derivatives.”

Eric Bollens  
Corporate Raw Material Purchasing Director  
L'Oréal

## Our Responsibility

### Leading the way to Sustainable Palm Oil

#### Engage

Palm oil (PO) is used in many everyday products, from soap to cooking oil and around 70% of the world's cosmetics contain palm derived ingredients. With many consumers concerned about the deforestation to grow palm, our customers are increasingly looking for sustainably sourced PO ingredients.

#### Create

We have been members of the Roundtable on Sustainable Palm Oil (RSPO) since 2006. In 2010 we became one of the first chemical ingredient manufacturers to supply PO and palm kernel oil (PKO) volume equivalent calculations for our derivatives. This enabled our customers to declare that they are supporting sustainable PO through a Book & Claim certificate process, working with our suppliers to further develop physical certified sustainable PO (CSPO).

#### Make

We now have seven manufacturing sites certified to the RSPO Mass Balance process, which enables certified and conventional PO to be mixed, but with the certified oil volume being traced throughout the supply chain. These sites handle more than 80% of our total volume of palm derivatives: an important step in developing a certified physical supply chain.

#### Sell

Our leading role in driving the change to sustainable PO has been recognised by our customers and RSPO. Our significance reflects the fact that we produce the widest range of personal care ingredients globally and touch the majority of cosmetic formulations.



We supply sustainable PO ingredients to more than 300 customers around the world. Many of our businesses offer these ingredients, including Coatings & Polymers, Health Care, Home Care, Lubricants, Personal Care and Polymer Additives.

# Environmental Impact

Minimise the impact of our operations



## Our Highlights

# 25.5%

of our energy was generated from non-fossil fuel sources, exceeding our target ahead of schedule

# 48.9%

reduction in VOC emissions was achieved at our manufacturing sites, exceeding our target ahead of schedule

# Zero

waste to landfill was achieved by eight of our manufacturing sites

## Our Targets

● Met ○ Ongoing ● Developed ○ New

- To have 25% of the Group's total energy requirements generated from non-fossil fuel sources by the end of 2015
- Based on 2010, to reduce total Group water consumption by 10% by the end of 2015
- Based on 2010, to reduce total Group waste to landfill by 20% by the end of 2015
- Based on 2010, to reduce total Group VOC emissions by 10% by the end of 2015
- To commence a pilot stewardship plan on two of our estates that will have a measurable impact on biodiversity by the end of 2016
- Based on 2010, to reduce total Group energy consumption by 5% by the end of 2015
- To implement a programme to track further Scope 3 greenhouse gas emissions data by the end of 2015
- To achieve 100% compliance with effluent discharge consents by the end of 2015
- To complete a feasibility study to explore ways to reduce the quantity of aqueous organic material going to effluent treatment plants by the end of 2015

## Our Approach

Investing in a sustainable future is a key strand of our strategy and integral to this are two increasingly important global drivers: climate change and scarcity of natural resources, such as water and fertile land availability.

As an ethical and responsible business, we continually seek ways to minimise the environmental impact of our operations. This responsibility is brought to life in our Environmental Impact Material Area, which focuses on:

- Reducing our greenhouse gas (GHG) emissions by lowering overall energy consumption and increasing energy usage from non-fossil fuel sources
- Reducing our impact on the world's depleting water sources
- Reducing our waste to landfill

Within this Material Area our initial approach to biodiversity was to focus on pilot stewardship plans at two of our estates with significant land. Our Hull manufacturing site and Cowick Hall Global Headquarters, both in the UK, have progressed towards this target and have carried out studies to identify their priorities. Whilst, on a localised basis, biodiversity is influenced by our management of waste, water and aerial emissions, we recognise that our raw material sourcing strategy is much more important. Consequently, our focus on biodiversity has been realigned with the supply chain aspects dealt with under the Product Stewardship Material Area (see p15).

## 2014 Performance

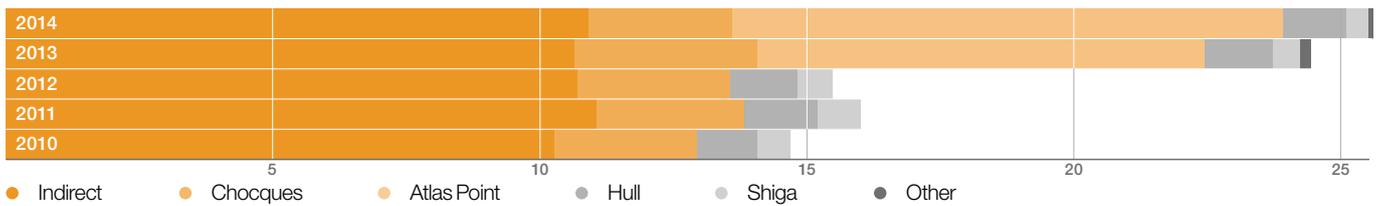
### Non-fossil fuel

In 2014, we exceeded our target of 25% of our total energy requirements generated from non-fossil sources a year ahead of schedule, achieving 25.5%. This is despite factors outside of our control, such as the severe drought in Brazil and the closing of nuclear power stations in Germany, both of which increase our use of fossil fuels.

Alongside investments at our manufacturing sites in Hull and Leek in the UK and Chocques in France, a major contributor to this non-fossil fuel achievement has been the project at our Atlas Point site in North America, which provides us with methane gas down a pipeline from a landfill site 3.5 miles away. This partnership was commissioned in 2013 and, after working with the landfill gas company to solve supply continuity and control system issues during 2014, the amount of energy generated has risen to record levels.

# Environmental Impact continued

## Energy from non-fossil fuel sources (%)



Also at Atlas Point:

- our \$2.3m investment into solar panels has started to pay dividends by reducing our reliance on fossil fuels;
- we have commissioned a new web based dashboard, which shows at any point in time the current energy balance and includes data on our solar panels; and
- the announcement of a large expansion plan, in a facility that will produce 100% sustainable non-ionic surfactants, is leading to further discussions on how we source additional renewable energy to fulfil increasing requirements.

## Non-fossil fuel consumption (%) relative to 2010 baseline year



## Greenhouse gas (GHG) emissions

Our total Scope 1 and Scope 2 GHG emissions have come down from 181,540Te CO<sub>2</sub>e in 2013 to 174,192Te CO<sub>2</sub>e in 2014. This equates to 610.3Te CO<sub>2</sub>e per £1m EBITDA in 2014, compared to 608.2Te CO<sub>2</sub>e in 2013.

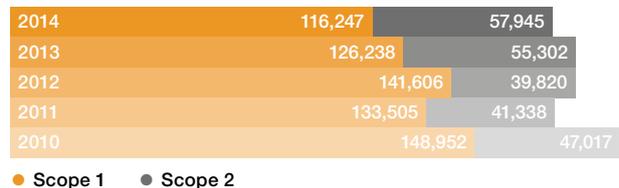
Our Scope 1 GHG emissions includes VOC and our net CO<sub>2</sub> emissions, which excludes emissions from the burning of sequestered carbon. Therefore, our increased use of non-fossil energy sources during the year has resulted in a Scope 1 GHG emissions reduction from 126,238Te CO<sub>2</sub>e in 2013 to 116,247Te CO<sub>2</sub>e, a decrease of 7.9%. For 2014, our Scope 1 emissions including those from sequestered carbon was 140,930Te CO<sub>2</sub>e.

Scope 2 GHG emissions, however, have increased from 55,302Te in 2013 to 57,945Te. This was primarily due to the decommissioning of a Combined Heat and Power (CHP) plant at the Gouda site in May 2013 that exported electricity to the grid. The completion of a new biodigester project will enable the site to once again export electricity to the grid.

Alongside investments at our manufacturing sites in Hull and Leek in the UK, and Chocques in France, advances in non-fossil fuel consumption at our Atlas Point manufacturing site in North America have made, by far, the largest contribution to reducing our GHG emissions. In total, our use of non-fossil and renewable energy in 2014 has eliminated 40,700 tonnes of CO<sub>2</sub> emissions, which is equivalent to taking 24,328 cars off the road or powering 7,044 homes. Over the past five years, we have eliminated 128,000 tonnes of CO<sub>2</sub> emissions, the equivalent of taking around 76,500 cars off the road for a year or powering over 24,000 homes for a year.

With reference to our Scope 3 target, in 2014 we began to establish a system for tracking CO<sub>2</sub> arising from employee travel. However, our current emission data, as declared through our CDP report, is dominated by consequential Scope 3 emissions from power generation.

## Changes in GHG emissions relative to 2010 baseline year for continuing operations (Te CO<sub>2</sub>e)\*



\* Scope 1 emissions are calculated using the International Energy Agency's published conversion factors for the tonne equivalents of CO<sub>2</sub>. Scope 2 emissions are determined using the country emission factors for electricity generation published by the International Energy Agency. Emissions from our sales offices and distribution centres are not material in comparison to our manufacturing sites, so they are not included.

### Volatile organic compounds (VOC)

Our target to reduce total Group VOC emissions by 10% by the end of 2015, based on 2010, has already been met and exceeded. We measure VOC at the six manufacturing sites where it is a material issue for us and we have achieved a 48.9% reduction.

#### VOC emissions (kg) relative to 2010 baseline year



### Energy

In 2014, we have continued our investment programme in energy saving projects at a number of our manufacturing sites, which will deliver an estimated 82,000GJ per year reduction when fully commissioned.

However, other factors last year, such as the harsh winter in North America and the installation and commissioning of increased capacity at a number of our manufacturing sites, have led to a marginal increase in energy use. This means that reaching our 5% total energy reduction target by the end of 2015 remains a significant challenge.

In line with our commitment to continue investing in energy saving initiatives, a detailed energy survey has now been carried out at our Rawcliffe Bridge site in the UK, from which a five year energy programme is being developed. We have also achieved ISO 50001 registration at our manufacturing sites in Hull in the UK and Mevisa in Spain. This has required us to develop an energy strategy and a detailed understanding of the energy situation at each site, as well as investing in training for all personnel on how to manage energy.

#### Energy consumption (GJ) relative to 2010 baseline year



### Renewable Energy and Waste Heat Recovery

At our Thane manufacturing site in India, we have invested in solar panels for water heating and an economiser for boiler flue gas heat recovery. The major projected benefits of this initiative are:

- 3,700GJ per year will be derived from renewable and waste heat sources; and
- GHG emission reduction of 180Te per year.

Last year, we replaced existing lights at many of our manufacturing sites with LED lighting and have seen a significant cost and energy saving as a result.

### Waste to landfill

We have continued to exceed our target of a 20% reduction in waste to landfill by the end of 2015, with a 45.2% reduction reported for 2014 compared to the baseline year of 2010. Eight of our manufacturing sites sent no waste to landfill in 2014 and we continue to see sustained delivery against this target from our three main contributors in this area: Mill Hall and Atlas Point in North America and Mevisa in Spain.

#### Waste to landfill (Te) relative to 2010 baseline year



# Environmental Impact continued

### Water consumption

In our 2013 report, we referenced plans for two major water reduction projects, which are now operational:

- In the Netherlands, our Gouda purification and recycling project became operational in April 2014 and has reduced water abstraction at the site by 50%.
- In Japan, our Shiga site's water re-use facility, which recycles cooling water, was commissioned at the end of 2014 with a potential 30% reduction per annum in groundwater use.

A major change to our reported performance resulted from the discovery and correction of a systematic reporting error from one of our manufacturing sites. The issue has been rectified both in current and relevant historical data. Due to the old data under declaring water use, the correction has improved our reported reductions in water consumption compared to our 2010 baseline year.

### Water consumption (m<sup>3</sup>) relative to 2010 baseline year (revised data)

**-12.5%**  
Exceeded target

2014	7,553,028
2013	7,394,351
2012	7,578,726
2011	7,785,938
2010	8,633,482



### Water Purification in Gouda

Utilising an advanced membrane filtration and reversed osmosis system, our Gouda manufacturing site can now purify waste water for re-use in the processing units and steam boiler at the site. With a capacity of 50,000 litres of purified waste water per hour, this installation fully caters for the site's water requirements, saving 500 million litres of groundwater per year.

An additional benefit is that it reduces the quantity of water treatment chemicals used, which in turn results in a reduced carbon footprint and a considerable reduction in CO<sub>2</sub>.

### Compliance with effluent discharge consents

In 2014, our effluent discharge performance was better than ever at 99.8%. There remain only four sites that have occasional issues with waste water, usually down to external factors such as weather.

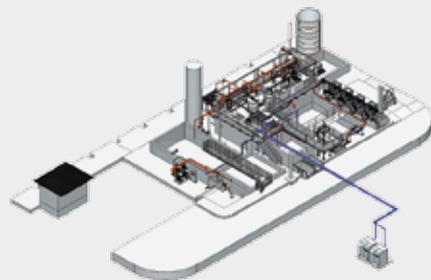
### Effluent discharge compliance (%)

**+99.8%**  
Ongoing progress

2014	99.8
2013	99.3
2012	99.6
2011	99.1
2010	98.9

### Effluent Treatment Plant (ETP) in Brazil

In 2014, we began construction of an ETP at our Campinas manufacturing site. From next year, this will allow us to reduce the site's effluent discharge by 75% by reducing Biochemical Oxygen Demand (BOD) of the remaining discharged water.



### The Future

The energy survey we carried out at our Rawcliffe Bridge manufacturing site in 2014 is currently being reviewed in order to develop a five year improvement programme. In 2015, we will be looking at where else we can conduct similar surveys, with a particular focus on those sites that are still developing their energy strategy.

Developments at our Gouda manufacturing site during 2015 and 2016 will also result in significant gains:

- Commissioning of biodigesters for glycerine will substantially increase the percentage of our energy requirements generated from non-fossil fuels
- Phase 2 of the water purification initiative will reduce water abstraction by another 45% for a total reduction of 95%

In addition, alongside our water re-use facility at our Shiga manufacturing site, we are in the process of looking into further water re-use plans at the site during 2015.

# Product Stewardship



Ensure that the ingredients we produce contribute positively to the environment and society throughout their lifecycle

## Our Highlights

7

manufacturing sites have RSPO certification, handling more than 80% of our global palm derivatives

150

of our palm derived products are certified to support sustainable palm oil and are supplied to over 300 customers around the world

70%

of our key suppliers were engaged in discussions on our Supplier Code of Conduct

## Our Targets

● Met ○ Ongoing ● Developed ○ New

- Following a detailed audit of product stewardship across the Group, to ensure that best practice is communicated and any appropriate improvement actions are taken by the end of 2014
- To develop a streamlined business process for populating the Ingredient Sustainability Database during 2014
- To only supply RSPO certified palm oil ingredients by the end of 2017, subject to the feasibility of the supply chain
- To engage with suppliers representing 80% of the volume of materials we buy, by the end of 2016, to ensure that they understand our supplier Code of Conduct
- To have RSPO certification of all our relevant supply chains by the end of 2015
- To assess the social and environmental practices of key suppliers representing 80% of the volume of materials we buy by the end of 2017
- To implement a system that will facilitate the traceability of palm derived raw materials by the end of 2017

GRI General Disclosures 12, 15

GRI Specific Disclosure EN27

## Our Approach

Our role in ensuring that health, safety and environmental protection are integral to the whole product lifecycle is through Product Stewardship. Our responsibility spans every stage of our operations; from the sourcing of raw materials in an increasingly fragile environment, to environmentally sensitive manufacturing processes and offering advice on the safe, efficient use and disposal of the finished products that contain our ingredients.

Product Stewardship is part of the International Council of Chemical Associations' Responsible Care® initiative, which we fully support. It is a 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.

Product Stewardship gives us a framework to fulfil our responsibilities and respond to a number of the global drivers that combine to present the biggest challenges and growth opportunities for us and our stakeholders (see p4): climate change and the scarcity of natural resources are changing expectations and behaviours and propelling more challenging legal and regulatory environments. Through successful Product Stewardship, we and our partners can meet the increasing demand for safe and sustainable chemical use to protect human health and the environment.

We have identified five core elements to Product Stewardship:

- 1. Raw material sourcing:** To ensure that the raw materials we use to make our products are responsibly sourced
- 2. Supply chain engagement:** To ensure that our suppliers act as ethically as we do in regard to areas such as human rights and the environment, whilst supporting our customers on their product traceability programmes
- 3. Product design:** To deliver the most innovative and sustainable ingredients to our customers
- 4. Quality assurance:** To contribute to and proactively seek higher quality standards across product and operational aspects of our Business
- 5. Responsible distribution:** To ensure that goods are delivered reliably, safely, consistently and on time, supported by our status as an Authorised Economic Operator (AEO), a standard providing assurance on security

Two areas of Product Stewardship where we have particular impact and responsibility are Product Design and Quality Assurance. In recognition of their importance to our Business, this year these areas have developed further within separate Material Areas<sup>1</sup>, which are explored in more detail on pages 20 and 22 respectively.

## Product Stewardship continued

### 2014 Performance

In 2013, we set ourselves a target to carry out a detailed audit of Product Stewardship across the Group, in order to ensure that best practice was communicated and appropriate improvement actions were carried out. This work helped to inform our five core elements of Product Stewardship, and consequently, we are now well placed to communicate best practice and develop an action plan to improve areas of weakness from 2015 onwards.

#### Raw material sourcing

In 2014, as in other years, we have consistently sourced a high level of natural, renewable raw materials to make our products. This continues to differentiate us from our competition and makes a significant contribution to our sustainability programme as it is key to addressing the global driver of the scarcity of natural resources. However, we are conscious that we must look further into the sustainability credentials and environmental profile of our renewable raw materials, with a primary focus on oil crops, the source of many of our raw materials.

#### Our Commitment to Deforestation

We are committed to reducing our contribution to deforestation and any resultant impacts on climate change and biodiversity by working with organisations such as the Roundtable on Sustainable Palm Oil (RSPO), filing a CDP Global Forest Report, and working with suppliers and customers to ensure the traceability of critical raw materials back to suitably accredited sources.

Much of our focus for responsibly addressing the social and environmental issues associated with oil crop renewables is centred on Palm Oil (PO) and Palm Kernel Oil (PKO) derivatives; this is an absolute priority for us, as it is for many of our customers and their consumers around the world, due to the impact of deforestation on climate change and the resulting changing expectations and behaviours. This year, thanks to a concerted global team effort, we have seen remarkable momentum in developing the physical supply chain for Certified Sustainable Palm Oil (CSPO) based derivatives.

Consumer pressure to support CSPO is most pronounced in food and personal care markets; in the latter largely due to the wide use of palm derivatives to make around 70% of the products in this market. We produce the widest range of personal care ingredients globally and, therefore, we believe that we have a responsibility to help drive CSPO changes.

One of the big issues facing CSPO relates to the volumes that remain unsold, because of supply chain logistical issues and the inability to connect buyer and seller. Ingredients based on sustainable palm oil via the RSPO Mass Balance process address this issue by ensuring

that CSPO is drawn into and audited throughout the supply chain to the consumers' product. We also believe it will create the momentum for supply chains to move to segregated palm oil derivatives.

#### Our journey in developing the CSPO supply chain

Supporting CSPO is an important part of our sustainability programme. Although the level of awareness amongst our customers and their consumers on CSPO varies around the world, we consider this to be a global concern and our efforts are consistent in all regions.



In November 2012, our Singapore manufacturing site became RSPO Supply Chain Certified to handle PO/PKO derivatives via the audited Mass Balance process. In 2013, a second manufacturing site, Rawcliffe Bridge in the UK, was successfully RSPO Supply Chain Certified, followed later in the year by our Mill Hall and Atlas Point sites in North America. This allowed us to considerably extend our CSPO product portfolio. In 2014, we obtained RSPO Supply Chain Certification of three more sites: Mevisa in Spain, Campinas in Brazil and Thane in India.

**“Croda has proved to be a first mover and early adopter of solutions to source and deliver physical certified sustainable palm oil products. Through commitment and engagement with suppliers and clients, in 2014 Croda has played a key role in influencing others in the supply chain to become sustainable. The RSPO highly commends the efforts made by Croda during this year and the tangible results achieved by the company in their journey towards making Certified Sustainable Palm Oil the norm.”**

Darrel Webber  
Secretary General  
RSPO

During 2014, we have seen remarkable progress in supporting CSPO with global commitment from our production, technical, quality and purchasing departments:

- Our seven RSPO certified sites handle more than 80% of our global palm derivatives. This allows us to work even closer with our major consumer goods customers in our Personal Care market, so that together we are leading the change in adopting the physical supply chain for CSPO ingredients
- We are the first company to offer such a wide range of palm oil derivatives that support CSPO, with more than 150 CSPO product variants being supplied to over 300 of our customers around the world in Personal Care, as well as Health Care, Home Care, Coatings and Polymers, Lubricants and Polymer Additives
- We have presented to our peers on CSPO at industry meetings, reached customers in 40 countries through our webinars, visited supermarket retailers to discuss the production of their own product brands and spoken, by invitation, at the global RSPO RT12 conference in Kuala Lumpur, Malaysia and at RSPO's second European Roundtable meeting in London
- For the very small volume of crude PKO that we purchased in 2014, around 20 tonnes, 90% was via the RSPO Mass Balance process

**“Croda has made an important contribution to our initiative in supporting sustainable palm derivatives.”**

Eric Bollens

Corporate Raw Material Purchasing Director  
L'Oréal

### Supply chain engagement

Our focus in this area is significantly increasing due to the need to establish full palm oil traceability and because we, and our customers, want to know that our suppliers work within the law and act as responsibly as we do.

In 2013, we made a commitment to engage with key suppliers representing 80% of the volume of materials we buy to ensure that they understand their responsibilities as outlined in our Supplier Code of Conduct. In 2014, we were able to use supplier review meetings to have face to face discussions on our Code of Conduct with 70% of these key suppliers.

We also engaged directly with a number of our key raw material suppliers on issues covering our entire sustainability programme. Through our Stakeholder Engagement Materiality Review Survey, our suppliers were asked for their feedback on our 2013 Material Areas and for details on how important these different elements are to them (see p9). This activity helped to inform our 2014 Materiality Matrix (see p8).

Wider stakeholder engagement also made us aware of the increasing importance that our customers and external reporting frameworks are now placing on a responsible supply chain.

Therefore, we have increased our investment in this area beyond the target set in 2013. We are now working to not only ensure an understanding of ethical practice, but to also assess the environmental and social practices of suppliers in areas such as health and safety, human rights, fraud and corruption, and their impact on energy, water and waste.

By investing in, and encouraging total supply chain integrity, our aim is to help manage customer risk as well as our own. This means looking at the upstream supply chain and supporting our customers downstream. This has involved working with customers on numerous programmes including: SEDEX, an online portal designed to share ethical data and enable continuous improvement in ethical performance across supply chains, and the EcoVadis online portal that aims to improve the environmental practices of companies by leveraging the influence of global supply chains, where we have a Gold supplier status.

### Responsibly Sourced and Supported HERO

As customers demand to know more about the ingredients that they buy, raw material traceability helps us to demonstrate our commitment to responsible sourcing and supply chains.

We are one of the world's largest producers of High Erucic Rape Oil (HERO) derivatives for industry. The oil we use is extracted from rapeseed in a process where nothing is wasted; even the meal that remains after the seeds are crushed is used.

The vast majority of the rapeseed we use is grown by a network of growers local to the manufacturing sites that use the raw material. We have a good relationship with many of these growers, visiting their sites and also offering them tours of our site to help them understand the importance of their product to us and the value we place on transparency, quality and sustainability.

We also agree contracts for crops well in advance of planting, giving farmers a degree of financial security, and in return ensuring that our customers have a reliable, high quality supply of HERO.



## Product Stewardship continued

### Investing in 100% sustainable non-ionic surfactants

In December 2014, we announced plans to make a significant investment at our Atlas Point manufacturing site in North America. This capital spend will equip Atlas Point with the facility to produce 100% sustainable non-ionic surfactants, by using ethylene oxide derived from bio-ethanol rather than petrochemicals. These plant derived products will enable us to offer the widest range of bio-based non-ionic surfactants on the market and the first of their kind in North America. This is at a time when our customers are increasingly asking for more sustainable ingredients to meet consumer demand.

### Product Design

The ingredients that we make are the essence of our Business. Innovation is what differentiates us from the competition and provides us with our fastest area for growth in the form of new product launches. The emphasis of our product development is on the three mega trends that we have identified (see p4). Ingredient sustainability, for us, goes beyond the sustainability of our raw materials, which is why we have an Ingredient Sustainability Database that collates data for 10 environmental metrics. This year we have worked on our target to develop a streamlined business process for what is now an ongoing activity to populate this database across our product portfolio. This aligns to our focus on the *12 Principles of Green Chemistry* and our use of renewable raw materials in our new product development, which is central to our Product Design Material Area (see p20).

### Quality Assurance

The high quality of our products and the way in which we operate has always been of paramount importance to us, which we continue to demonstrate by contributing to and proactively seeking to adopt higher standards across our Business. This holistic approach to Quality Assurance (QA) ensures that we continue to be an industry leader in a number of new areas that support the global driver of challenging legal and regulatory environments (see p4), such as the adoption of the European Federation for Cosmetic Ingredients (EFfCI) Good Management Practice (GMP) and the EXCiPACT international excipients GMP certification.

Working in collaboration with other industry leaders and stakeholders will help to drive quality standards and consistency across the globe, with the ultimate aim of ensuring customer, and therefore consumer safety and confidence, which is the ultimate objective of our Quality Assurance Material Area (see p22).

### Responsible distribution

The Authorised Economic Operator (AEO) certificate is an internationally recognised quality mark indicating that our role in the international supply chain is secure, and that our customs controls and procedures are efficient and compliant. By the end of 2014, the majority of our European manufacturing sites and warehouses had achieved the AEO standard.

The work that we do for AEO indirectly supports the efforts we make across our distribution network, this provides our customers with the highest level of assurance that their goods will be delivered in accordance to specification, safely and on time without import and export delays.

### The Future

The environmental and social issues surrounding palm oil have gained huge momentum over recent years and we are proactively focusing on our commitment to responsibly source CSPO. To this end, we have established a new target: to implement a system that will facilitate the traceability of palm derived raw materials by the end of 2017. During 2015, all of our relevant manufacturing sites handling PO/PKO and derivatives will also have RSPO Supply Chain Certification and we are working towards all of our PO supply chains being certified by 2017. Other future efforts and investments, like 100% sustainable non-ionic surfactants at Atlas Point, will continue to create great competitive demand for us and our customers.

We believe that raw material sourcing goes hand in hand with excellent supply chain engagement: not only do our customers and consumers increasingly, and rightly, demand ethical practice and integrity from all of those involved in the sourcing, supply and use of chemicals, but also strong, sustainable upstream and downstream supply chains make good business sense. That is why we will continue with our commitment to engage with key suppliers on our Supplier Code of Conduct, ensuring ethical practice and a responsible upstream supply chain.

Building on our review of Group wide Product Stewardship, from 2015 onwards we will implement an action plan to address any areas of weakness and communicate best practice.

Products including Matrixyl have won many awards including 'Anti-ager of the Year' and 'Launch of the Year' in the Stylist magazine's 2014 Skincare Awards.

## Personal Care

### Turning back time with Matrixyl™

#### Engage

Our customers are increasingly looking for novel ingredients to help them meet growing consumer demand for effective anti-ageing products.

#### Create

In 2000, our active ingredient specialists, Sederma, discovered Matrixyl, a matrikine (peptide) that stimulates collagen synthesis and skin repair by slipping into the damaged cell surface and sending a signal into the cell to repair it.

#### Make

Following the launch of Matrixyl, which quickly established itself as a vital anti-ageing ingredient for cosmetics, we introduced two related ingredients: Matrixyl 3000 and Matrixyl synthe'6™, which target other age related skin conditions such as crow's feet and deep forehead wrinkles.

#### Sell

Independent studies have proven Matrixyl's long term anti-ageing properties, leading to its inclusion in many sell out products from leading consumer brands.

Matrixyl works like a lock and key mechanism. The peptide is designed to fit into the damaged cell surface and sends a unique signal into the cell to repair it. Each anti-ageing issue has a different signal it needs to repair itself, leading to the development of Matrixyl 3000 and Matrixyl synthe'6.



# Product Design

Deliver the most innovative and sustainable ingredients to our customers



## Our Highlights

10.7

was the average score of our new products against the *12 Principles of Green Chemistry* and 48% met all 12 Principles

88%

of new products met our 13th Principle, delivering even greater social and environmental value during use

67.4%

of the raw materials we used in 2014 came from natural, renewable sources

## Our Targets

● Met ○ Ongoing ● Developed ○ New

- To monitor our new products against the *12 Principles of Green Chemistry*, and our 13th Principle, throughout 2015 and measure their renewable content in order to report the sustainability of these ingredients

## Our Approach

Global concerns around climate change and the scarcity of natural resources (see p4) continue to grow, meaning that our customers and their consumers increasingly want to know that the products they use are sustainable, in terms of the origin of the raw materials used, the manufacturing process and the impact during use and disposal. Within our Business, natural, renewable ingredients are, and always have been, an important part of our research and development (R&D), which supports the ingredient sustainability mega trends (see p5) that we have identified as continuing to be a major opportunity for growth.

Innovation is a core strand of our Business strategy and we target future growth through a focused approach to launching our new products into select niche markets, and by differentiating existing products with modifications and new application data. By ensuring that sustainability is integral to our Product Design process, a core part of our Product Stewardship programme (see p15), which includes consideration of the most efficient manufacturing process, we can continue to create renewable ingredients that help our customers to reach their sustainability targets, support the environment, reduce waste and add value to our Business, our customers and their consumers. The central role that sustainability plays in Product Design is based on a commitment to source natural, renewable raw materials and focus on the *12 Principles of Green Chemistry* (Anastas, PT and Warner, JC, 1998).

## 2014 Performance

Our focus on the *12 Principles of Green Chemistry* continues to play a central role in the design and creation of our products, with employee awareness reinforced by prominent communication and a clear, global understanding of the Principles at all our R&D facilities. During 2014 we also began to measure our products against our own 13th Principle: the product affords a sustainability benefit to the customer directly or to their customers at some point in the value chain (see p4). This could be an environmental benefit and/or a social benefit and/or a financial saving. This launch was supported by an extensive employee communication programme that also reiterated the existing '12 Principles'.

In 2014, we launched 60 new products to six business areas from 14 of our manufacturing sites. On average, these products scored 10.7 against the original '12 Principles' and 48% met all '12 Principles'. 88% also met our 13th Principle, delivering even greater social and environmental value. The average natural, renewable raw material content of all these new products was 76%.

We take pride in sourcing a large proportion of our raw materials from natural and renewable sources, and have led the way in reporting this figure for the last five years, during which time it has stayed close to 70%. In 2014, we can report that 67.4% of the raw materials we used came from natural, renewable sources putting us, as ever, in an excellent position to benefit from the continually growing trend in natural based consumer products.

Just a few of our 2014 launches that demonstrate our commitment to sustainable design, manufacture and performance are:



**Crosolv™ W**, a bio-based, 100% renewable carrier for ceramic ink manufacturing, designed for customers seeking to remove volatile organic compounds (VOCs) from formulations and source biodegradable and sustainable materials. This product uses a co-stream from our Leek manufacturing site in the UK and scores 10 out of 12 *Principles of Green Chemistry*.



**Atlox Rheostrux™** is our new rheology modifier range for agrochemical formulations, which offers significant performance benefits such as better stability, rheology profile and suspensibility performance over traditionally used structuring agents such as clay, silica and xanthan gum. This range scores 9 out of 12 *Principles of Green Chemistry*.



**Crodasone™ P** and **Hydrosativum P** are our first products to use pea protein for skin and hair care products. Crodasone P scores 10 out of 12 *Principles of Green Chemistry* and Hydrosativum P 11 out of 12.

### Award Winning Innovations

Our Sederma operation was the only ingredient supplier to win the Amway R&D Innovation Supplier of the Year 2014 Award for the development of an exclusive peptide, Matrixyl synthe'6™.

We were awarded Beiersdorf Innovation Award 2014, given to the company considered the most unique, innovative and customer focused in their creation of products.

As voted by our peers, we were listed in Management Today magazine's awards as one of Britain's Most Admired Companies and were voted as the Number 1 Most Innovative Company in Britain.

### Biotechnology and Sustainable Design

Biotechnology essentially harnesses the enormous chemical potential of microbes, which represent the greatest reservoir of chemical diversity on the planet, to manufacture value adding ingredients. The chemical industry has, historically, not placed much emphasis on non-fossil versus fossil fuel based raw materials, but now, with the increased focus on climate change, scarcity of natural resources and changing expectations and behaviours of consumers (see p4), the proportion of chemicals produced through biotechnology is expected to increase significantly and achieve dominance in the sector by 2030.

We focus our bio-innovation in three areas:

**White biotechnology:** The application of biotechnology for industrial purposes, to produce materials, chemicals and energy. Product example: **ODA White™** is a skin lightening active by Sederma. The product is based on a conversion carried out by yeast biotransformation from one acid to another.

**Green biotechnology:** Biotechnology associated with agriculture and agricultural processes. Product example: **Sebules™** and **Echinacea Stems GX™** are two skin care products launched in 2014, which are derived from plant cell culture HTN™ biotechnology with dramatically reduced environmental impact. Comparative data with conventional agriculture have shown 99.9% reduction in water and land use, and an 80% decrease of extraction solvents use, together with the total avoidance of pesticides and reduction of industrial wastes.

**Blue biotechnology:** Biotechnology associated with marine and aquatic applications. Product example: **Venuceane™** is a cosmetic skin active produced by the fermentation of a marine extremophile micro-organism from deep sea hydrothermal vents. This micro-organism survives by synthesizing an enzymatic cocktail that offers beneficial properties to the skin.

Complementing our activities in biotechnology, in 2014 we also began our involvement in an EU funded project called BISIGODOS. This project is looking to produce valuable chemicals derived from algae biomass fed with CO<sub>2</sub>, our particular focus is in the area of bio-based surfactants.

### The Future

As we move into 2015 we will continue to measure and focus on the natural, renewable origin of our raw materials, promoting their importance to all of our customers. In ensuring that our R&D scientists remain attentive to the *12 Principles of Green Chemistry*, we will also ensure that they take a more in depth look at our new 13th Principle to bring further consumer and societal benefits.

# Quality Assurance



To contribute to, and proactively seek, higher quality standards across product and operational aspects of our Business to ensure consumer safety

## Our Highlights

220+

industry associations were engaged in dialogue with us during 2014

100%

of our manufacturing sites producing cosmetic ingredients have EFCI GMP certification ahead of schedule\*

## Our Targets

● Met ○ Ongoing ◐ Developed ◑ New

- To proactively engage with technical committees and industry associations that feed into the development of new policies and regulations important to our Business during 2014
- To develop an internal Group Quality Policy and Manual by the end of 2014
- To ensure that our recent acquisitions in China and Italy meet ISO 9001, ISO 14001 and OHSAS 18001 by the end of 2016 and that any subsequent manufacturing acquisitions meet these global standards within three years of final completion
- ◐ To gain EFCI GMP certification for our new manufacturing site that produces cosmetic ingredients and EXCiPACT certification for three manufacturing sites producing pharmaceutical excipients by the end of 2015

## Our Approach

During 2014, our Policy & Regulation Material Area evolved to become Quality Assurance (QA). This aligns us more closely with how our customers talk about this critical element of Product Stewardship (see p15) and how we will ultimately achieve mutual success.

Expanding the scope of this Material Area also helps us to better communicate that our approach to QA encompasses much more than product quality. With complex global supply chains and the increasing consumer and media spotlight on business ethics and integrity, our holistic approach to QA ensures alignment with the global driver of challenging legal and regulatory environments (see p4). It provides an opportunity for us to differentiate our Business in an ever more crowded market; it increases barriers to entry for competitors; and is, therefore, fundamental to our continued success.

For us, QA goes much further than passive compliance. In a number of key areas it is about understanding the principles behind legislation and working actively to increase quality standards in our industry, thereby safeguarding our employees, customers, supply chains, communities and ultimately the consumers who are using our ingredients in the products they buy. It is about providing uniform product quality and performance across the globe, protecting our customers' brand integrity and building consumer trust.

In 2012 we appointed a Global Head of Quality Assurance, who is now a dedicated expert and leader of this Material Area, demonstrating our commitment to quality in everything that we do.

There are two areas of focus in our approach to QA:

- **Internal:** To ensure that we manage and implement quality and compliance effectively across our global Business
- **External:** To provide assurance of quality and compliance to our customers, consumers, suppliers and other stakeholders

Central to current management thinking is the Plan-Do-Check-Act (PDCA) cycle based on the work by quality expert WE Deming. This is embodied in all current ISO management system standards and we have created our own four steps within QA aligned to this cycle:

- **Influence:** Building awareness and sharing knowledge via trade associations and governments, for example, to help raise global quality standards and contribute to policy development
- **Adoption:** Committing to relevant policies, principles and projects internally and being prepared to go beyond requirements to deliver enhanced global quality consistency
- **Implementation:** Acting on our commitment by embedding our approach into our management systems and verifying this through Key Performance Indicators (KPIs) and audits
- **Review and Revise:** Ensuring continual improvement and evaluations by completing the PDCA loop

## 2014 Performance

### Influence

Last year, we met our target to proactively engage with technical committees and industry associations that feed into the development of the new policies and regulations that are important to our Business. This included our continued lead role in the development of Good Manufacturing Practice (GMP) standards for cosmetic ingredients, through our work with the European Federation for Cosmetic Ingredients (EFFCI) and for pharmaceutical excipients through our work with EXCiPACT™. We are also active members of over 220 industry associations around the world.



### Building Confidence in Bio-Based Products

We are pleased to be assisting the development of a series of standards with CEN, the European Committee for Standardisation, to support the bio-based economy. We are particularly looking at how information in the bio-based content of products can be communicated in the supply chain, to other manufacturers and ultimately to consumers.

### Adoption

All of our manufacturing sites hold certification to ISO 9001 and several non-manufacturing sites are also certified to this quality assurance standard. Our manufacturing sites all also have ISO 14001, with our new acquisitions, IRB in Italy and Croda Sipo in China, achieving this ahead of our 2016 deadline.

In 2012, we set a target to meet two quite new certification standards and last year and we made excellent progress:

- **To gain EFFCI GMP certification for our remaining sites that produce cosmetic ingredients by the end of 2015**

We achieved this early during 2014, along with an additional manufacturing site in Gouda in the Netherlands\*

- **To gain EXCiPACT certification for five manufacturing sites producing pharmaceutical excipients by the end of 2015**

Our Mevisa site in Spain and Rawcliffe Bridge site in the UK have already achieved this target during 2014

### Implementation

To confirm the implementation status of different standards, all manufacturing sites now have to report against KPIs concerning their quality performance, as well as reporting on their quality management systems and GMP status to the Group Quality function. These KPIs are used to ensure that progress continues and to identify and benchmark best practices in the Group, so that it can be effectively shared and implemented elsewhere.

Our involvement in setting publically available standards goes back to the UK Pharmaceutical Quality Group's PS 9100 GMP standard for excipients, first published in 2002. As well as actively working to improve quality by creating benchmarks, we have also always sought to lead by example to demonstrate our commitment to the highest quality thresholds, which we do by becoming an early adopter of standards. For instance, our Rawcliffe Bridge manufacturing site in the UK was one of the first in the world to attain PS 9100 GMP in 2003 and EXCiPACT certification in 2014.

### Review and revise

To ensure that quality assurance levels meet or exceed customer and regulatory expectations, we continually seek and evaluate feedback from customers and other stakeholders. As a direct consequence of this feedback, we have developed our Group Quality Policy, in line with our 2014 target and we have started work on the content of our Group Quality Manual.

### The Future

Customer and regulatory expectations will continue to develop and move beyond the quality of our products into all other areas of our operations. We will utilise the core strengths of our integrated management systems to ensure that these requirements are adopted and seamlessly implemented within everything we do. We expect this to increasingly include our sales and distribution network, as well as our manufacturing sites.

We will also continue to engage with technical committee and trade associations, which have the objective of improving the quality of our products and, ultimately, to provide assurance of the safety and efficacy of our products to consumers.

Within the Adoption strand of our quality cycle, IRB, which we acquired in 2012, is working towards EFFCI GMP certification by the end of 2015, and both IRB and Croda Sipo are working to attain OHSAS 18001 by the end of 2016. Our Three remaining manufacturing sites producing pharmaceutical excipients will also have achieved EXCiPACT by the end of 2015.

In line with our 2014 target, we have a Group Quality Policy, with the completion and implementation of the Manual taking place in 2015.

\* Excluding IRB, which we acquired after setting this target, but are currently working towards EFFCI GMP

“Throughout our partnership with Croda, we have always felt that we have operated as a single team, sharing a common culture. We are delighted by the success that our partnership is now delivering.”

Paul Campanelli  
Chief Executive  
Par Pharmaceutical Inc.

## Life Sciences

### Delivering a pure health partnership

#### Engage

A diet rich in Omega 3 fish oils has long been recognised as a key part of maintaining our health and wellbeing. More recently pharmaceutical treatments based on Omega 3 oils have been developed for the treatment of cardiovascular conditions, including hypertriglyceridemia, which is caused by high levels of fat in the blood. We have been working closely with Par Pharmaceutical for several years to deliver the benefits of pharmaceutical Omega 3 to the North American market.

#### Create

We use sustainably sourced fish oil, and our advanced purification technology, PureMax™, to create our pharmaceutical ingredient, OmeRx™. In OmeRx we concentrate to very high levels the two Omega 3 fatty acids that are proven to treat cardiac issues, Eicosapentaenoic Acid and Docosahexaenoic Acid, better known as EPA and DHA.

#### Make

Our high quality and consistency at every stage in the complex manufacturing process, coupled with rigorous documentation and precision, generates the batch consistency needed for stringent North America Food and Drug Administration approval, enabling us to supply OmeRx to the pharmaceutical industry.

#### Sell

Our product is sold to Par Pharmaceutical as an active pharmaceutical ingredient (API), which they market and sell in its pure form as a drug to treat hypertriglyceridemia.



The quality and purity of OmeRx reflects our high standards of research and development and production. It combines unrivalled lipid chemistry and technology certified to pharmaceutical Good Manufacturing Practice standards, for the manufacture of API quality products. We have gained approval from North America Food and Drug Administration and the UK Medicines and Healthcare Products Regulatory Agency.

# Process Safety

Keeping our manufacturing sites safe and legally compliant



## Our Highlights

### Training

on process safety was given at all levels of the Business, from Group Executive Committee members to Operators and Technicians

7

engineers completed the first year of our new Hazard Study Leaders Diploma

### Launched

an Alkoxylation Process Safety group to champion continual improvement

## Our Targets

● Met ○ Ongoing ● Developed ○ New

- To ensure that all Basis of Safety documents comply with new internal standards by the end of 2016
- To ensure that all Process Risk Reviews are compliant with our internal quality targets by the end of 2018
- To ensure that our Process Safety Management System is in place at all manufacturing sites by the end of 2016 and that it is embedded at any subsequent acquisitions within three years of final completion through relevant management training programmes

## Our Approach

As a global operator of chemical manufacturing processes, we have a duty of care to our employees, customers and surrounding communities to keep our operations safe. A serious fire, explosion or leak has the potential to cause injury, financial loss through supply interruption to our customers and damage to our reputation.

Getting process safety right is not easy, it involves a structured, detailed appraisal of what could go wrong with each of our chemical processes and a step by step analysis of how such scenarios can be prevented from happening. This requires skilled, knowledgeable engineers and operational employees and a consistent approach, which is provided by our own Process Safety Management (PSM) system.

Our PSM system is characterised by its use of the Safety Management Standard, OHSAS 18001, to which all of our manufacturing sites are certified, and new acquisitions will be within three years. Apart from providing a robust framework for PSM, this standard requires continual improvement to be built in, delivering a more resilient system year after year through:

- continued supervision by the Group Safety Health Environment and Quality (SHEQ) Steering Committee, which comprises of our Executive Committee, Regional Operations Managing Directors and our Vice President of Sustainability, who are all responsible for setting the strategy, monitoring progress and driving improvement;
- involvement of top management in Process Safety through the National Skills Academy for the Process Industries (NSAPI) leadership training, and planned visits by Board members to manufacturing sites, with a deliberate focus on process safety;
- our Process Safety Model, which has been subject to rigorous peer review, and has the formal support of our Board, providing a framework for PSM at all of our manufacturing sites;
- a balanced set of leading and lagging Process Safety Key Performance Indicators (KPIs), which are subject to formal quarterly review by the SHEQ Steering Committee and can provide an early warning system for any problems; and
- the development of process safety technical capability at each manufacturing site through our own Hazard Study Leaders' Academy, which incorporates accreditation and a Diploma from the University of Derby in the UK.

The scope of this Material Area was adjusted in 2014 to focus solely on Process Safety, with the Process Stewardship element now within our Product Stewardship Material Area (see p15).

## Process Safety *continued*

### 2014 Performance

We recognise that in order to deliver on our commitments to Process Safety, we must build management leadership skills and PSM knowledge at all levels of the organisation. All Group Executive Committee members and Business Directors have now completed Process Safety Leadership training accredited by NSAPI.

In 2014, we also delivered our own course for Site Engineers and Operation Managers, which is aligned to our PSM system and the NSAPI syllabus. For Operators and Technicians, we fulfilled our commitment to carry out scheduled manufacturing site based Process Safety training, aligned with our Basis of Safety documents.

Following the establishment in 2013 of our Chinese joint venture, Croda Sipo, we invested in Hazard Study Leadership training for our Engineers at the Mian Yang manufacturing site. The course provided knowledge of the layout and techniques of our PSM framework, and enabled attendees to start their journey to becoming a qualified Hazard Study Leader, which will be awarded after further training and practical experience.

The course was run by an accredited external provider, with all training material fully translated into Mandarin. This training enables our Engineers to conduct process risk assessments for new and existing processes, in keeping with the requirements of our PSM strategy. During 2014, we also ran the course twice in the UK, which was attended by Engineers representing 14 manufacturing sites from across the Business.



#### Croda Hazard Study Leaders' Academy

In 2011, we launched our own internal Academy to develop a Group wide team of Hazard Study Leaders, with members drawn from process safety practitioners based at our manufacturing sites around the world. In 2013, we chose to have the status of our process Hazard Study Leaders' programme recognised by creating a syllabus accredited by the UK's University of Derby to postgraduate Diploma level. 2014 saw our first cohort of seven engineers complete the first year of the two year course, which uses work based learning principles. In 2015, the second group of learners will embark on the course, whilst the first completes the Diploma.

### Monitoring progress and driving improvement

In the context of Process Safety, we define a chemical process to be one that could conceivably, if all safety systems failed, lead to a fatal injury. Every quarter, our SHEQ Steering Committee review a set of KPIs that cover leading indicators, as well as near misses and progress against Group targets in this area. This is to ensure that our most senior people can oversee our ongoing monitoring and performance.

Any new chemical process undergoes a six stage Process Risk Assessment (PRA) and on a five year cyclical basis we conduct a Process Risk Review (PRR) on all PRAs, which focuses on changes to process or applicable standards since the previous review, and checks and acts on any issues identified. We check each PRR against a set of 13 internal quality targets, which is to make sure the steps within the PSM framework have been fully carried out. Any significant process safety issues are reported in our incident database and are subject to an incident investigation. We are making good progress against our 2018 commitment of having all PRRs compliant with this internal quality standard, which we are confident we will meet by the deadline.

We have also embarked on a programme of external peer review of a cross section of our PRRs to ensure that we have examined process risks in sufficient depth and breadth.

One area that we have targeted for process safety improvement is AO processes. This included setting up a global user group to raise awareness and share good practices related to the hazards associated with ethylene and propylene oxide.

In 2014, we also invested in conducting Quantitative Risk Assessments (QRAs) of our Alkoxylation reactors, following a template developed to support the design of a new plant at our Singapore manufacturing site, which will be commissioned in 2015. The initial experience of the new in depth scrutiny that this technique provides has been positive; a few unknown risks were identified even on established plants, for which controls are being implemented.

#### Improving Alkoxylation (AO) Process Safety

In 2014, we launched an AO user group and held the first meeting at our Rawcliffe Bridge manufacturing site in the UK, with representatives from each of our seven sites that have an AO plant attending. The focus of the user group was to check the efficiency of our systems by simulating an emergency scenario. Led by the manufacturing site representative, the group worked through the emergency arrangements and took time to reflect on their own site procedures for similar events. An improvement programme was subsequently identified.

### Pressure Relief Directive

Recognising the wide variety of standards for pressure relief of plant equipment across the globe, our Group Safety team decided to issue a Group directive to ensure that all manufacturing sites meet the same high standards. A methodology has been developed to assess whether our protective systems are or are not fit for purpose by design.

As a company with sites of varying heritages, ages and nationalities, this is a significant undertaking and will take several years to complete. The capability to conduct the assessment was developed in 2014 through in house training, which was delivered through our Hazard Study Leaders' Academy and acts as another demonstration of our commitment to developing our internal process safety capabilities.



### Improving Ethylene Oxide (EO) Transportation Safety

At our Thane manufacturing site in India, we have identified EO transportation as a key process safety risk because of the 300km distance that EO has to be transported to the site, the conditions on India's busy roads and the local standards of tanker equipment. We have adopted a comprehensive safety approach that includes:

- new, custom designed and specially built road tankers with satellite location and speed monitoring technology, as well as video surveillance of driver behaviour;
- improved inspection and maintenance protocols; and
- a thorough driver selection, training and evaluation programme.

In 2014, we also secured a supply of EO from a new plant only 90km away from our manufacturing site, which gives a proportional reduction of risk. This has been made possible by negotiations with the supplier to modify their loading facilities to accommodate our articulated tanker vehicle. The shorter distance also means that no night driving is required, reducing road accident risk significantly.

### The Future

Progress against our targets is on track and will continue towards the deadlines for completion that we have set ourselves. Our work to make the Basis of Safety document our main vehicle for communicating to manufacturing site operators how our high hazard processes are run safely has been expanded. We are now working towards a three point strategy to:

- improve local Basis of Safety documents through sharing good practice and incorporating operator feedback;
- consolidate training using OHSAS 18001 principles; and
- develop ways to improve clear identification of key safety critical assets for asset management purposes.

Similarly, our target to ensure that our PSM system is fully in place at all our manufacturing sites and embedded at any subsequent acquisitions within three years of ownership is also on track, thanks to the significant training we undertook in 2014. This will be supported by refresher Process Safety Leadership courses in 2015.

In 2015, we will be compiling action plans, where required, following completion of the quantified risk assessments of our AO processes. The global user group, established in 2014, has been very beneficial and will continue to meet beyond this initial exercise.

# Occupational Health & Safety



Empower employees to have health and safety at the forefront of their thinking

## Our Highlights

# 0.21

per 100,000 hours worked was our lost time injury rate, a reduction from 0.31 in 2013

# New

corporate standard for incident investigation was launched across the Group

## Our Targets

● Met ○ Ongoing ● Developed ○ New

- To have a Behavioural Safety Improvement Programme at every manufacturing site by the end of 2014
- To ensure that a risk assessment is conducted at every manufacturing site, during 2014, to understand and mitigate against any potential issues that the ageing of our workforce presents
- To develop and implement, during 2014, a programme that raises awareness of potential health and wellbeing issues that could affect our employees
- To target a lost time injury rate of below 0.2 per 100,000 hours worked in 2015 as a milestone on our journey to the aspirational goal of zero injuries
- To adopt the principles of organisational mindfulness across our manufacturing sites, as appropriate to their existing Behavioural Safety Programmes, by the end of 2015

## Our Approach

We have a responsibility to take care of all our employees and we set ourselves high standards for personal safety where our aspirational goal is zero harm. With operations around the world, we set a consistent standard, which must also consider the prevalent global driver in this area, challenging legal and regulatory environments (see p4).

Our aim is to provide a safe working environment at every one of our global locations, where our people can identify and manage all of the risks they may encounter at work. With this firmly in mind, we have a three point strategy for personal safety improvement:

1. To focus on those sites with relatively poor performance
2. To improve our incident investigation and root cause analysis
3. To develop our Behavioural Safety Programmes, which are now in place at each manufacturing site

Our key indicator of occupational safety is the lost time injury (LTI) rate. We calculate this by taking the total number of injuries occurred in the year that resulted in absence from work of one day or more. We then divide this figure by the total number of hours worked in the year by all employees globally, and multiply by 100,000, which is approximately the number of hours worked in a lifetime.

We track the following three LTI rates:

- the rate for our employees only;
- the rate for contractors only; and
- the combined rate for all those who work at Croda, employees and contractors.

## 2014 Performance

In 2014, our combined LTI rate was 0.21, compared to 0.31 the previous year. This was influenced by several factors, including the establishment of our new incident investigation standard and procedure and a focus on contractor management. Of particular note is the improvement made in contractor management at our Singapore manufacturing site, who also undertook a major construction project during 2014 with over 100 contractors on site for long periods of time.

At our Hull manufacturing site in the UK, we have developed a joint improvement programme with partner contracting companies based upon the acronym:

- Communicating
- Organising
- No complacency – always questioning
- Training for competence
- Risk assessing
- Auditing
- Controls
- Testing compliance
- Overseeing work
- Recognising good practice
- Supporting

#### Safety First for Contractors

During a shutdown at our Chocques manufacturing site in France, a safety awareness programme was organised for contractors. Over three weeks, an average of 80 people were involved in a daily challenge, representing 27 different contractor companies. Activities covered areas such as compliance with safety standards, active participation in safety training, quality of risk analysis and general behaviour on site. As a result, there were no recordable injuries during the shutdown period, which is a time when new hazards are presented by the non-routine work being carried out.

#### Driving safety improvements

In 2013, we set a target to have a Behavioural Safety Programme at every manufacturing site by the end of 2014. This has been achieved with initiatives such as the extension of the successful first-line supervisors training, which was first introduced in 2013. The course, which aims to increase the supervisor's confidence in monitoring performance and making changes in behaviour, was extended to our Thorne distribution centre and our Leek manufacturing site in the UK.

We also took the first step to incorporate the principles of Organisational Mindfulness into our Behavioural Safety Programmes. This involved Global SHE Managers and Site Directors attending a bespoke one day seminar on *Mindfulness in High Reliability Organisations*, run by the UK Regulator's Health and Safety Laboratory at its Buxton Headquarters.

In recognition of the fact that some of our manufacturing sites are at different stages of safety development, and due to the historical safety activities at some sites before they became part of the Group, we put extra resource into supporting their work in coming up to our corporate standard. For example, we formed a joint venture in China in 2013, Croda Sipo, and we continue to work closely with the manufacturing site to apply our Safety Management system, based on OHSAS 18001. This has included translating and simultaneously presenting safety related training in Mandarin and English.



#### Working Together on Safety in Gouda

Our Gouda manufacturing site in the Netherlands conducted a summer campaign, 'Working Together on Safety,' as part of a wider programme to communicate the importance of safety at the site to employees. The summer campaign took place in July as, according to statistics from the chemical industry, there is more chance of incidents happening in summer than at other times of the year.

To reinforce the safety in summer message, the Gouda management team handed out water bottles to employees, contractors and visitors. The water bottles carried a label saying 'H<sub>2</sub>O in plaats van EHBO', which in English broadly means 'H<sub>2</sub>O instead of First Aid'. The water served the purpose of keeping workers hydrated in the summer conditions, and thus more alert, but the management team also used the exercise as an opportunity to talk about the need for risk awareness and good job preparation, and the importance of looking out for their own welfare and that of their colleagues.

#### Improving incident investigation

During 2014 we introduced a new corporate standard for incident investigation, the management procedure of which is now in place at all of our manufacturing sites. The standard embraces the best practices of the UK Health and Safety Executive's (HSE) HSG 245 guidance and within this, the Event and Causal Factor Analysis (ECFA) technique is applied to fully understand the sequence of events leading to the incident. This includes investigators now needing to consider what other actions or omissions may have been a causing factor. Pursuing the enquiry further in this way leads to root causes being identified, which then need to be related to contravention or noncompliance with specific clauses and/or sub clauses of OHSAS 18001, the Safety Management System standard to which our manufacturing sites are accredited or are working towards, in the case of recent acquisitions.

## Occupational Health & Safety *continued*

A key feature of our implementation of ECFA is that there is a requirement for the incident investigators to identify the element of our Safety Management System that was not being applied correctly. By identifying such systematic failures, it is hoped that potentially related incidents can be prevented by implementing a solution to the non-performing part of the Safety Management System. Since all of our manufacturing sites' Safety Management Systems are aligned to OHSAS 18001, patterns of system weaknesses may be established across the Group. This will allow us to focus on improving any areas of weakness across the Business.

Another health and safety target set in 2013 was to ensure that a risk assessment is conducted at every manufacturing site during 2014, to understand and mitigate against any potential issues that the ageing of our workforce presents. Again, this was achieved and, as a direct result, several of our manufacturing sites and distribution centres have invested in lifting equipment to prevent ergonomic injury caused by manual handling, which represents a particular challenge to an ageing workforce.



### **Making Light of Heavy Work**

Our distribution centre in Germany has invested in a new piece of machinery called a tube-lifter. By creating a vacuum, this lifts cans, boxes and sacks to prevent physical stresses and strains to employees.



### **Legionella Awareness**

After a HSE Legionella audit at our Ditton site in the UK, we identified the need to raise employee understanding of this bacterium, which can cause Legionnaire's disease in any employee at the site, regardless of whether or not they are involved in the operation of the water systems. We produced a short booklet that was issued to everyone on site and required everyone to take a test to confirm that they had read and understood the issue.

## The Future

In 2015, we will aim to have a sustainable, combined LTI rate of 0.20 or lower. Our SHE Managers, from across our manufacturing sites, will work on an action plan to help embed the principles of Organisational Mindfulness into existing Behavioural Safety Programmes as a way to improve safety awareness in line with our new target.

As a result of our work on ECFA, which has allowed us to identify common, systematic causes of incidents, in 2015 we will require incident investigators to drill down further into the details of our safety management procedures, allowing us to pinpoint and address root causes with more accuracy. Implementing actions to improve areas of weakness will be the focus of our Group Safety Audit Programme over the next two years.

“Using our industry knowledge and robust testing methods, we develop bespoke solutions to manage and control our customers’ friction needs.”

John Eastwood  
Global Marketing Manager  
Croda

## Performance Technologies Taking control of friction

### Engage

Controlling friction between moving parts is fundamental to maximising operating efficiency. Customers from a diverse range of industries come to us with a specific need and we work with them to find a bespoke solution.

### Create

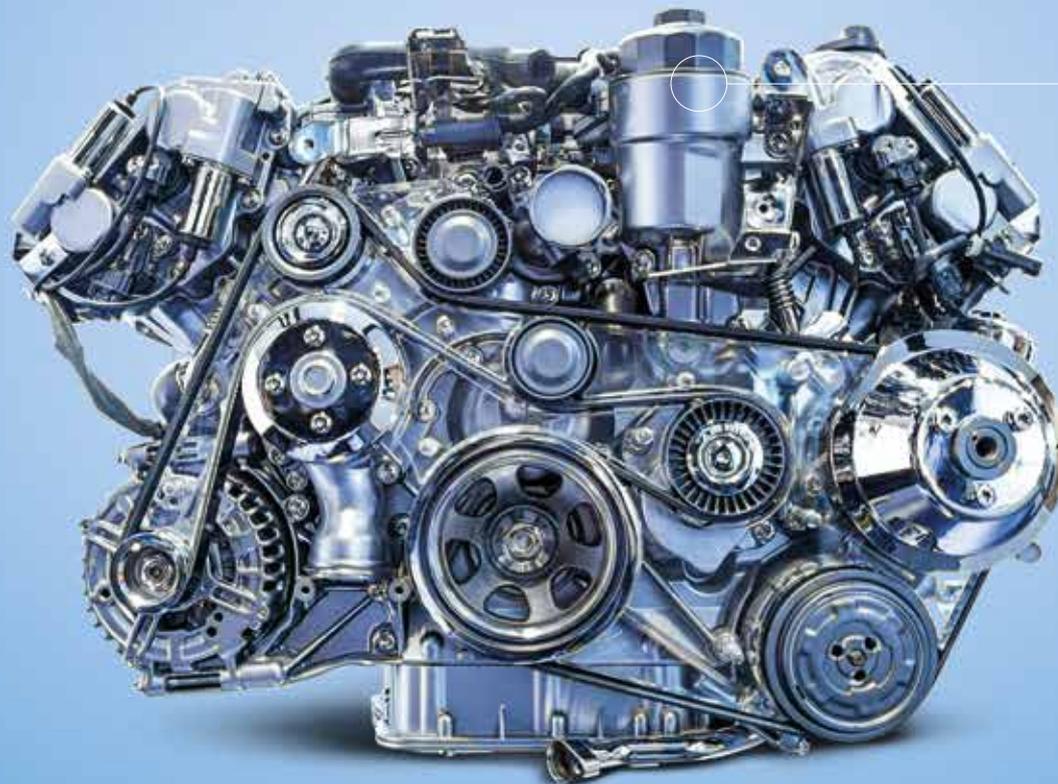
We create bespoke molecular designs and simulate real life systems through bench testing to identify the best friction modifier for each customer. In 2014, we enhanced our testing knowhow and capabilities with an Optimol Instruments’ SRV unit, the renowned system for testing friction and wear.

### Make

We have used our industry knowledge to make a range of innovative friction modifiers, which are molecules that change frictional properties by creating a film between surfaces that come into contact.

### Sell

Our friction modifiers enhance customer applications in such ways as increasing fuel efficiency, reducing emissions, boosting power transfer efficiency in gear systems and increasing mechanical longevity.



We have launched new friction modifiers for a variety of lubricated systems, including engine oils, industrial gear oils, wet clutch transmissions and neat metalworking fluids. We are now looking to include contact between metal and other surfaces, such as diamond-like carbon, elastomer and clutch plates.

# Our People



Create an environment where people can thrive

## Our Highlights

# 91.2%

of our employees received training in 2014, totalling 103,980 hours

# 70%

of our employees received a formal appraisal in 2014

## Our Targets

● Met ○ Ongoing ● Developed ○ New

- All employees to have a formal annual appraisal by the end of 2015
- To have conducted our third global employee engagement survey by the end of 2020
- To review our Graduate Development Programme and internal requirements for our 2016 recruits
- To implement a global Learning Management System (LMS) to manage and enhance employee learning and development by the end of 2016

## Our Approach

Our Business is only as good as our people. We need to ensure that we have the right people in the right roles, at the right time, with the right skills. Our objective is to create an environment where everyone enjoys working and can thrive in order to truly realise their potential. To achieve this, we need to constantly evolve our people strategy, whilst ensuring that it aligns with our Business strategy.

In April 2014, Lee Johnson joined us as Group Human Resources Director, representing Human Resources (HR) at Executive Level for the first time, which underlines our intent for the function to be integral in supporting the future of our Business.

During the year we also undertook some structural changes to globalise our Business across the industries we serve. This has particularly had an impact on our sales, marketing and research and development (R&D) teams, who are fundamental in enabling us to satisfy our customer's needs.

Following these changes, the way in which HR supports the Business will continue to be regionally and locally focused, but with a specialist team at the corporate centre who will advise on people related decisions. This specialist team will also be critical to the continuing evolution of a core set of policies and standardised frameworks that our operations can use and adapt to meet Group, regional and local needs. This will facilitate our overall approach, which aims to:

- continue to build our employee brand, 'Be part of a Better Future', to attract the right people across existing and new markets, supporting our growth and culture of innovation; and
- continue to build the capability of our people to support Business needs, with clear accountabilities in order to unlock the potential of our people.

## 2014 Performance

### Recruiting talent

As our Business needs evolve, so must our efforts in acquiring and managing talent. Our current Graduate Development Programme (GDP) was created just over 25 years ago, so in 2014 we set a target to implement a redefined GDP for our 2016 recruits. Due to the changes last year within HR, we have now revised this target as follows: To review our GDP and internal requirements for 2016 recruits. Ultimately, we want to make sure that any changes we make align the GDP with our Business needs.

Work that started in this area during 2014 has led to the following decisions and actions:

- The overall structure of the GDP is effective and will remain the same, but to ensure that we continuously improve the calibre of applicants, a few changes have been implemented or are currently being piloted in relation to recruitment practises
- There is a need for a greater focus on supporting emerging markets and increasing the number of graduates with technical and research and development skills
- The need for graduate placements will continue to be driven by regional and local needs, but filtered up through our leadership teams within our global framework
- We are piloting a programme in Europe to increase the length of placements for our Engineers from nine months to one year. This would allow our Graduate Engineers to become involved in more meaningful projects, which they can complete before moving to their next placement
- Creativity is at the heart of our Business, so we have added it as an area that we now assess during the graduate recruitment process. This will help us to recruit the right type of people who will thrive and develop quickly in our Company
- We are always looking for ways to attract and enhance our applicant pool. We will continue to do this by encouraging greater diversity in our search for applicants from varied educational backgrounds and with different experience, because we know this is the best way to strengthen our GDP talent

**Sandra Breene,**  
Executive Committee  
member who joined  
on the GDP



“I joined the graduate programme in 1990, attracted by the work ethos that allows people to make the most or least of opportunities presented to them depending on their own ambitions and abilities. My first role was as an R&D Chemist and I have since worked in sales, marketing and distribution in Asia and Europe and for all of our market sectors, before taking on my current senior management position in 2012.”

**Tabani Mtombeni,**  
completed the GDP  
in 2014



“The graduate programme has given me the confidence to say ‘I can do anything as long as I put my mind to it’. I completed three placements, in France and the UK, all in different, novel areas, so I had to learn quickly and not be afraid of challenges. I received great support from my managers and mentors, which helped me grow my confidence, knowledge of the Business and network of peers.”

**Hannah Kronenwetter,**  
new recruit to the GDP  
in 2014



“I am currently completing my first of three placements in North America after graduating with a B.S. in Chemistry. I had previously held a summer internship at Croda and so was very happy to be accepted onto the graduate programme as it offers great opportunities, particularly the rotational aspect of the programme, which will give me a better idea of the area in which I would like to specialise.”

## Our People continued

### Retaining talent

When someone leaves us, it has a huge impact on our Business in terms of knowledge loss and the cost of recruiting and training a replacement. Retention of critical people and skills is a fundamental part of our people strategy. For 2014, our turnover stood at 6%.

With the benefits package we offer being a part of retaining talent, we continue to increase the ongoing participation in our Company share scheme, which is partly due to our work in raising awareness of the possible financial gains through greater advertising and educational events.

**80.6%**

UK membership of our sharesave schemes in 2014

**56.7%**

Non-UK membership of our sharesave schemes in 2014

### Global share scheme membership (%)



During 2014, we had planned to undertake our first global engagement survey, against which a target was set in our 2012 report. Whilst this did not take place due to our global reorganisation, we do have results from existing surveys, such as the Sustainability Stakeholder Engagement Survey (see p9), an external graduate benchmark survey and this year's corporate narrative research on the nature of the Company brand. From this, we have already gathered lots of valuable feedback and we are currently reviewing the changes we have planned. Our commitment to conduct a specific engagement survey across our Business still stands.

### Managing and developing talent

Investing in our people to build on their knowledge, skills and abilities is important to us because:

- it allows us to develop expertise from within, for example, almost half our Executive Committee joined as graduates;
- it provides excellent opportunities for ongoing personal and career development; and
- it helps us to create an environment where people enjoy working and can thrive.

We continue to invest heavily in internal and external training for our employees and track progress year on year. In 2014, 91.2% of our people received training totalling 103,980 hours. Training needs are identified during annual appraisals, where we are making some progress against our 2015 target with 70% of employees completing an appraisal in 2014.

Separate to the formal appraisal process, we again conducted a Global Talent Review in 2014 with 1,550 of our employees and 185 managers being reviewed. This process enables us to gain a good understanding of the talent mix we have in our Business and will help us to create a meaningful future platform from which we can retain, guide and deploy our people effectively.

Also, with regard to supporting our people to realise their potential, in 2014 we revised our target to launch a suite of career management tools as follows: to implement a global Learning Management System (LMS) to manage and enhance employee learning and development by the end of 2016. The LMS is a single, interactive tool that will manage all avenues of training, whether delivered online, internally or externally.

### Developing the Leaders of Tomorrow

Our Leadership Development Portfolio remains a world class offering that covers Graduate entry, Executive development and everything in between. Moving forward, we will seek individual feedback from participants from all stages of our Leadership Development Portfolio, in order to ensure that we continue to offer our potential leaders the best personal and professional development.



### Our Leadership Development Group (LDG)

At the end of 2014, the current LDG completed their two year programme, which brought together a group of 11 high performing, high potential managers from a wide range of business functions across the globe. The programme is based on experiential learning, so members can discover and develop their individual leadership styles, whilst building a formidable global, cross function network of peers that they can leverage to drive our Business forward. This LDG worked on two projects: sustainability and improving the creative environment in the Company. The output of the sustainability project was used in the development of our 10 Material Areas in 2013 and 2014, whilst the work on creativity is expected to have a positive impact on our Business in the near future.



### Our 2020 Networks

Our 2020 Network programme is a critical element of our over Leadership Development Portfolio. The programme is targeted at individuals who have the passion, commitment, desire and drive to become a future leader within the Business. It offers those participating a year long opportunity to learn the leadership skills necessary to lead and inspire others. The programme also offers a fantastic opportunity to network and develop long lasting relationships.

## The Future

The review of our GDP highlighted some important areas to improve upon. We continue to review the programme to ensure that our graduate recruitment process is inclusive of diverse educational backgrounds. We believe that by expanding the skills set, the whole Business will benefit from a more diverse graduate pipeline.

Retention of talent will remain a priority within our people strategy. Along with our ongoing focus on appraisals and meeting training needs, we will continue to increase awareness of, and encourage participation in our share ownership schemes.

We understand the importance of constantly asking the Business for feedback and recognise that when we get it we have to act on it. We will, therefore, take the time to review and respond to recent employee surveys, so that our people can see the real value of supplying us with their feedback before embarking upon our first engagement survey, which will then become a frequent occurrence.

Across our Group Executive Committee there is strong understanding of the importance of focusing on performance and the huge impact it can have on the bottom line. With this in mind, we will continue to work on increasing the percentage of our people who undertake a formal appraisal. We will also progress our plans to develop and rollout the LMS, ensuring that any new systems align with our evolving people strategy.

Above all, our immediate focus will be to ensure that all locations have appropriate HR operating frameworks and policies, which continue to comply with the ILO declaration on Fundamental Principles and Rights at Work. This will enable our people to do what they do best: support the successful growth of our Business.

# Diversity & Inclusion

Embrace and empower all individuals



## Our Highlights

### Launch

of Croda SpeakUp, our Group wide whistleblowing hotline

### Training

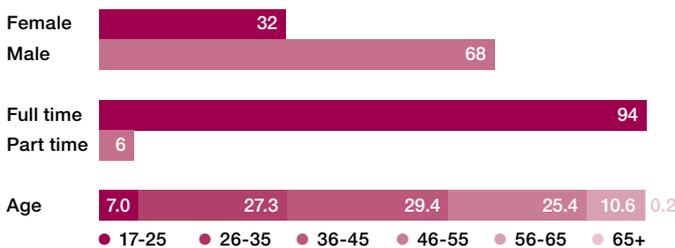
on unconscious bias behaviour was completed by our Leadership Development Group

## Our Targets

● Met ○ Ongoing ● Developed ○ New

- To further enhance our whistleblowing procedures through the launch of an independent reporting hotline and website by the end of 2014
- To ensure that we have completed a pilot programme of unconscious bias training with a cross section of our middle and senior managers by the end of 2015
- To ensure that all locations have appropriate policies and activities to support, value and respect diversity in their workforce by the end of 2016

### Number of employees (%)



## Our Approach

We introduced this Material Area in 2013 as part of our focus on embracing the challenges of a changing world, and the global drivers of mass population growth, ageing and polarisation and shifts in the global economy (see p4). For us, Diversity & Inclusion is about supporting, valuing and respecting difference in our workforce, and ensuring that all of our employees feel empowered and included. It is about creating a culture of mutual respect for mutual benefit.

## 2014 Performance

In line with the target we set in 2013, which sought to enhance the whistleblowing policy and procedure we already had in place, in 2014 we globally launched Croda SpeakUp. This is an independent, third party phone line and website designed to ensure anonymity, whilst increasing employee comfort and willingness to challenge and report important issues. In North America, the rollout was combined with additional workplace cultural training across all of our operations.

In 2013, we also highlighted the importance of unconscious bias training as a key way to protect against issues such as gender and ageism, particularly around employee recruitment, promotion and development. So during the year, we incorporated unconscious bias training into our Leadership Development Group (LDG) programme, which brings together a cross section of managers and future leaders. This was a successful pilot study, which saw us meet our target ahead of schedule and has given us insight into its potential value in other areas.

We also combat unconscious bias by:

- using more than one interviewer when recruiting;
- aligning selection and promotion decisions to objective criteria, such as assessment and performance appraisal scores; and
- providing regular training for assessors and interviewers to guard against rating errors.

In ensuring that all of our locations have appropriate policies and activities to support, value and respect diversity in their workforce by the end of 2016, during 2014 we started a review that included investigating work-life balance and the differing professional and personal needs of our employees. This supports our company values and should ensure that we provide opportunities for all our people to develop and progress. At recruitment stage, we are confident that our practices support the hiring of a diverse workforce, which can be tracked through our HR systems.

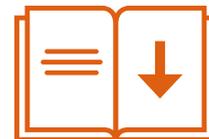
## The Future

We are a multi-ethnic, multi-geographic, multi-skillset company, and as such we will always look to ensure that we embrace our differences, include and empower our people to fulfil their potential and have the most diverse workforce possible to create value.

As part of this, we will continue to make employees aware of Croda SpeakUp and ensure that our training and HR practices allow us to conduct business fairly, without unconscious bias. We will do this by continuing to look at our practices globally to meet our 2016 target and with a more detailed review of the unconscious bias training completed by our LDG.

# Corporate Knowledge

Safeguard our knowledge and expertise



## Our Highlights

### New

knowledge sharing competency was introduced into our global employee appraisal framework

## Our Targets

● Met ○ Ongoing ● Developed ○ New

- To complete a feasibility study on the implementation of a global knowledge transfer process by the end of 2015
- To establish knowledge sharing as a core competency across the Group and develop practices that facilitate the capture and transfer of such expertise by the end of 2015

## Our Approach

Our corporate knowledge or, to put it simply, what we know, is what sets us apart from our competitors. It is the foundation of everything we do: from how we create ground breaking innovations, to the way we support customers with market insights and how we run consistent, quality processes globally.

In a world where global drivers (see p4) mean that employees are increasingly mobile and the pace of change and innovation seems to be ever increasing, we work hard to protect and capitalise on our corporate knowledge across our Business by capturing, retaining and sharing it.

Our three point strategy:

- 1. Knowledge capture:** Through our recruitment strategies and acquisitions, we aim to learn and grow in new areas
- 2. Knowledge retention:** We look to recognise and reward employees with expertise, thereby helping to keep them and their knowledge in the Business. We use systems and procedures to protect knowledge as people retire or choose to work elsewhere
- 3. Knowledge sharing:** Much of what we know is in our people's minds or our processes. To ensure that we keep delivering outstanding service and innovation, all of our people need easy access to the insights and learning of our many specialists around the world

## 2014 Performance

In November 2014, we introduced a new Knowledge Sharing competency into our global employee appraisal framework, Croda Aspire. This sits alongside other competencies, such as Teamwork, Effective Workload Planning and Continuous Development and aims to embed a culture of knowledge sharing across our Business.

The development of our Knowledge Sharing competency was initiated by a team brought together as part of an employee development programme: our 2020 Network. With full endorsement from our Chief Executive, the European based team developed their project, called Learn, Share, Succeed, which aims to enable all employees to build an effective network of people who are rich in knowledge. The team identified barriers that the Business could look to overcome in areas such as recognition, motivation and time and are developing tools to address these.

Due to the scope of this work, and the research that went into its development, we have been able to broaden and exceed the target we set in this area. The feasibility study was more focused on assessing current practices and identifying gaps, which led to the implementation of the competency and plans to launch a number of other activities that will aid the knowledge transfer process.

## The Future

In 2015, we will embed the 2020 Network Learn, Share, Succeed project across the Business, focusing on developing four key areas to complement the new knowledge sharing competency:

- **Guest speakers:** Recognising internal and external experts and providing a platform for sharing their expertise more widely
- **Finding people:** Simplifying our internal people databases to make knowledge, skills and experience easier to find
- **Quick connections:** Highlighting areas of excellence within a given location and forging knowledge links throughout our global organisation
- **Sharing lessons learnt:** Encouraging a positive process for teams or individuals to review activities and projects aimed at establishing and sharing best practice

The work that we undertake as part of this project will support our new target for this Material Area. Our aim will be to drive a shift in our culture that puts knowledge sharing at the heart of our Business mindset. We want to enable and empower individuals to share and extract value from their colleagues and external experts, creating added value from greater innovation and new market opportunities.

# Community Education & Involvement



Support the communities in which we operate, with a primary focus on encouraging young people to work within science and technology

## Our Highlights

56.8%

increase in volunteering hours, totalling 6,879 hours

Global

1% Club Champion network launched to coordinate volunteering activities at every location

## Our Targets

● Met ○ Ongoing ● Developed ○ New

- Following a review of the UK STEM education programme, to facilitate the implementation of at least two programmes at new locations tailored to meet local needs by the end of 2014
- To support our 1% Club Champions from across the world through the launch of a communications network during 2014
- To increase internal and external awareness of our community education activities to enable all countries in which we operate to participate by the end of 2015
- To have the capability to engage with young people at all stages of their education by 2020
- To ensure that at least 5% of employees at all operations with a research and development Centre or significant engineering team receive Education Ambassador training by the end of 2014

## Our 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 (see p4) indicate that trust in business is becoming more uncertain. It can also improve the performance and increase the sense of achievement of our employees, whilst helping us recruit new talent in the future and ensuring that we have a positive influence around the world.

To support our local communities, we focus on two areas:

- **Community education:** To raise the profile of science, technology, engineering and maths (STEM) by providing targeted support to schools, colleges and universities primarily in areas where we operate. This helps us improve the learning and career prospects of local people, enhance our reputation, and develop the employee skills necessary for our future growth by investing in the people who will deliver it
- **Community involvement:** Through which we can respond both proactively and reactively to local needs and deliver tangible benefits, whether that is helping to clean the local environment, collecting donations that support the vulnerable, or extending our work with schools to include reading classes, for example

All of these projects are built on open and honest dialogue with our local communities. This helps us to build mutual trust and respect, to direct help to where it is needed most, and to identify and resolve any public concerns about our operations.

## 2014 Performance

### Community education

During the year, our operations around the world again worked to raise the profile and communicate the benefits of a scientific education and 17 of our 19 research and development (R&D) Centres and locations with a significant engineering team ran local education programmes.

Our UK STEM team, for example, reached 1,375 students in 55 schools across all of our five operations in the UK. The team, made up of a rotating group of individuals who are being encouraged to develop their leadership skills, continued to support colleagues in other countries as they develop their own education programmes. In 2014, this support included producing learning materials that can be adapted to meet local needs and completing training in Italy and across Latin America. This helped maintain a consistent level of quality in our educational toolkits and enabled us to exceed our 2014 target of implementing at least two programmes at new locations.

As well as recognising the benefits of a globally consistent educational toolkit, we also strive to develop long lasting relationships with schools, colleges and universities, rather than having just one-off contact. Central to this is the dedication of our employee Education Ambassadors, who drive partnerships with learning institutions near their location. This year, we were close to meeting our target of ensuring that at least 5% of our employees at operations with an R&D Centre or significant engineering team receive Education Ambassador training. At some locations we exceeded 5%, but to facilitate the consistent delivery of this training globally, a programme was developed in 2014 and will be fully implemented in 2015.

Our support for scientific education takes in all learning stages. This year our activity ranged from employees in Brazil giving 20 chemical engineering university students a presentation about chemistry in action; a trio from Cowick Hall in the UK taking part in a local hands on science careers event for 12-13 year olds; and a team from our office in Italy taking part in a National Day of Chemistry with 150 local pupils.

We are very pleased that, from across our Business, we can demonstrate our commitment to engaging with young people at all stages of their education. With the breadth and depth of activities, we feel that we have already met our 2020 target, but we will continue to record and report future activities. This success also meets our target to increase internal and external awareness of our community activities, which is again evidenced in the level of participation.

However, our passion for encouraging young people's interest in science does not preclude us from introducing them to other professions that are essential to our Business. We again welcomed students on work experience and school visits, so that they can learn about functions such as sales, marketing, HR and IT.



#### Promoting STEM Careers and Awareness in Spain

In March, a group of 29 students from the Vedruna School of Tordera visited our Mevisa manufacturing site to learn more about career opportunities in our Business. Then, later in the month, we visited their school and a group of employees gave a lesson to 10-11 year olds, bringing science to life using simple experiments.



#### Inviting Students to Croda Sipo

During 2014, our manufacturing site in China, Croda Sipo, signed an agreement with Southwest University of Science and Technology to establish a Centre of Learning in conjunction with the School of Material Science and Engineering. Through this agreement, they host student visits so that they can see some of the manufacturing processes carried out at the site and learn about their associated chemistry. By June, 90 students majoring in Applied Chemistry had already visited the manufacturing site, followed by 40 students majoring in Environmental Engineering visiting in July.

#### A Community Award for Sustainability

In 2014, our Gouda manufacturing site in the Netherlands was delighted to win the Maatschappelijk Verantwoord Ondernemen Award Gouda 2014. According to the awarding jury report: "Croda has made major steps in its own conduct of business for the community as well as for sustainable energy management. This has influenced the improvements of liveability in the Korte Akkeren area and thus led to a better acceptance of the presence of the company."

Just a few elements of Gouda's commended approach were:

- Encouraging students at more than 10 local schools to visit the manufacturing site and develop an understanding and enthusiasm for technical sciences
- Developing an open relationship with neighbours, local government and business clubs and educating them on the sustainability of our production processes, including a bi-yearly open day that has seen more than 2,000 visitors to the site
- More than 50 colleagues volunteering at schools, care centres, sports clubs and for many more organisations as part of the 1% Club

## Community Education & Involvement continued

### Community involvement

From cleaning rivers in Japan, to redecorating a chapel in a Russian centre for the elderly, our employees' volunteering activities are as diverse as the communities in which we operate.

This diversity reflects our commitment to allowing our people to use 1% of their annual working time to support a wide range of local good causes, via our 1% Club programme. For full time employees, this equates to around three days per year.

Each location has a 1% Club Champion who coordinates activities and keeps employees informed about new volunteering opportunities. In 2014, we helped to enthuse and inform our Champions by launching a new communications network. The dedicated discussion room on our intranet is used to share 1% Club experiences and best practice to inspire new and innovative ideas.

During the year, employees volunteered for a total of 6,879 hours, equivalent to £120,000 of in-kind donations, an impressive 56.8% increase from 2013. In Latin America, some of this 1% Club activity was carried out in partnership with our customers, adding even more value to local communities by working together on shared goal.



Croda Colombia, together with our customer, Profrance, ran a beauty session for women of the local Violetta Home Foundation. The activity was to support the global Look Good, Feel Better Foundation, which saw 13 women with cancer visit the office to listen to a talk and receive a cosmetics demonstration to increase their self-esteem.



In North America a presentation on Sustainable Palm Oil, highlighting the role that we play in our industry, was given to a local Girl Scout group. The visit was arranged after noticing that a packet of biscuits from the Girl Scouts displayed a Sustainable Palm Oil logo.



### Donating 67 Minutes in South Africa

This year, on Mandela Day, all South Africans were asked to spend 67 minutes helping their community to reflect the 67 years that the late President Nelson Mandela spent working for human rights. Our South African team members spent 67 minutes playing football with underprivileged youngsters from a children's home, having previously donated food, clothing and blankets to the organisation.

### The Future

Throughout 2014, we sought to build on the strong foundations of our community activity, sharing best practice around the Group. Going forward, we will continue to decentralise our activities in Community Education and Involvement, both to raise global standards and to get maximum value out of every project.

We will also seek to involve a higher ratio of our people in community activity and continue our stakeholder dialogue across the communities in which we operate. In Community Education, we will fulfil our commitment to deliver Education Ambassador training globally, which will continue to increase internal and external awareness of our activities, so that all of our operations contribute. These activities will build upon the tools we have already developed to engage students of all ages, from primary school children learning about science for the first time to graduates about to embark on their careers.

In Community Involvement, we will continue to encourage all employees to engage with their communities via the 1% Club. This includes working with local managers to ensure that, wherever possible, employees are able to take the time to volunteer.

Community Education & Involvement is now firmly embedded in our culture and materiality, but is driven by our people, so we will no longer be setting future targets for this Material Area. It will remain of great importance to us and so we will continue to report progress and monitor KPIs around performance.

# Delivering Sustainability

## Our management and governance

Since 1925, a dedicated and diverse team from across our Business has led and driven what we now refer to as our sustainability programme.

### Our Governance

Our two most senior decision making bodies, the Board of Directors and Group Executive Committee, govern and are ultimately responsible for our economic, environmental and social performance. As such, they play an active role in ensuring that sustainability is an integral element of our Business strategy.

However, responsibility for shaping and delivering our sustainability strategy does not just lie with our leaders, but continues to stretch right across our Business. Each and every one of our employees has a role to play in our sustainability programme, which is communicated through our internal Our Responsibility brand.

Our Vice President (VP) of Sustainability, who reports to our Group Chief Executive and President of Operations, manages our Global Sustainability Team and chairs our Sustainability Steering Committee, with the support of an Executive Sponsor.

A group of seven experts from specific areas of the Business sit on the committee as the Material Area Owners and four Regional Representatives, who are supported by Regional Steering Committees, fulfil a 360° role, cascading details of our activities globally and reporting back on the delivery of our strategy. We have 48 reporting operations covering the Business, each with a Sustainability Champion who communicates the different needs of the regions in which we operate and reports progress against our performance targets.

**“As global customers face growing consumer demand for more sustainable products, they increasingly seek out our ingredients. Sustainable and natural products will continue to be key in driving our growth.”**

Martin Flower  
Chairman

### Our Approach

Our sustainability programme is influenced by global drivers (see p4), which affect the way we do business both now and in the future. To ensure that these feed into our wider Business strategy and to keep sustainability at the forefront of our business thinking, our Group Executive Committee receives quarterly performance reports and is involved in an annual Sustainability Conference where the programme and its performance is reviewed. The Board of Directors also receives quarterly summary reports and bespoke additional presentations on sustainability throughout the year, as it is an integral part of their agenda, alongside those from other corporate functions including: SHEQ, HR, IT, Legal, and Finance and Treasury.



For more information on the corporate governance of our Business download the 2014 Annual Report and Accounts at [www.croda.com/annualreport](http://www.croda.com/annualreport)

The primary aim of the Global Sustainability Steering Committee, working with the Board of Directors and Group Executive Committee, is to establish clear objectives and performance targets aligned to global drivers through our Material Areas.

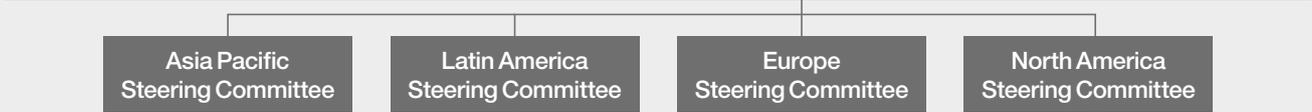
#### Senior Management



#### Global Sustainability Steering Committee



#### Regional Steering Committee



#### Site Level Support



GRI General Disclosures 34-37, 39, 42-43, 47

# GRI Content Index

During 2014, a review of the GRI G4 General Disclosures and Standard Disclosures was conducted. As a result, we are reporting to a self-declared 'Core' accordance level for the period 1 January 2014 to 31 December 2014.

General Standard Disclosures	Description	Sustainability Report page	Annual Report & Accounts page	More Online
G4-1, 2	Strategy and analysis	4, 6, 8-9	6, 10, 34	
G4-3 – 16	Organisational profile	Inside front cover, 2-4, 9, 15-18, 22, 36	2-3, 10-11, 28-32, 36, 139	●
G4-17 – 23	Identified material aspect and boundaries	Inside front cover, 8	34	●
G4-24 – 27	Stakeholder engagement	9, 32-40, Back cover	34	●
G4-28 – 33	Report profile	Inside front cover, 42-44		●
G4-34 – 52	Governance	6, 41	40-79	●
G4-56 – 58	Ethics and integrity	36	38	●

Specific Standard Disclosures	Description	Omissions	Sustainability Report page	Annual Report & Accounts page	More Online
<b>Economic</b>					
G4-EC1	Direct economic value generated and distributed			4-27, 89-93	●
G4-EC2	Financial implications and other risks and opportunities due to climate change	●	11-14	35	
G4-EC3	Coverage of the organisations defined benefit plan obligations	●		108-112	
G4-EC4	Significant financial assistance from government				●
G4-EC9	Proportion of spending on local suppliers at significant locations of operation				●

## Environmental

G4-EN1	Materials used		21	36	●
G4-EN2	Percentage of materials used that are recycled input materials				●
G4-EN3	Energy consumption within the organisation		13	35	
G4-EN5	Energy intensity				●
G4-EN6	Reduction of energy consumption		13	35	●
G4-EN8	Total water withdrawal by source		14	35	●
G4-EN11	Land in or near protected areas or areas of high biodiversity				●
G4-EN12	Significant impacts on biodiversity		16-17	35	●
G4-EN15	Direct greenhouse gas emissions (scope 1)		12	35	
G4-EN16	Energy indirect greenhouse gas emissions (scope 2)		12	35	
G4-EN17	Other indirect greenhouse gas emissions (scope 3)				●
G4-EN18	Greenhouse gas (GHG) emissions intensity		12		●
G4-EN19	Reduction of GHG emissions		12	35	
G4-EN21	NOx, SOx and other air emissions				●
G4-EN22	Total water discharge				●
G4-EN23	Total weight of waste				●
G4-EN24	Significant spills				●
G4-EN27	Initiatives to mitigate environmental impacts of products and services		15-21	35	●
G4-EN28	Packaging reclaimed by category				●
G4-EN29	Monetary value of significant fines				●

Specific Standard Disclosures	Description	Omissions	Sustainability Report page	Annual Report & Accounts page	More Online
<b>Labour Practices and Decent Work: Social</b>					
G4-LA1	Employee hires and turnover		34	38	●
G4-LA3	Return to work and retention rates after parental leave, by gender				●
G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements				●
G4-LA5	Percentage of workforce represented in health and safety committees				●
G4-LA6	Rates of injury and illness and number of work related fatalities		29	37	●
G4-LA9	Training per year per employee	●	32, 34	38	
G4-LA10	Programmes for skills management and lifelong learning	●	32-35	38	
G4-LA11	Employees receiving regular reviews by gender and employee category		32, 34	38	●
G4-LA12	Percentage breakdowns of employees according to diversity groups		36	38	●
G4-LA16	Number of grievances about labour practices filed, addressed, and resolved through formal grievance mechanisms				●
<b>Human Rights: Social</b>					
G4-HR4	Operations in which the right to exercise freedom of association or collective bargaining may be at risk		35	38	●
G4-HR5	Operations at risk of incidents of child labour		35	38	●
G4-HR6	Operations at risk of forced or compulsory labour		35	38	●
G4-HR10	Percentage of new suppliers that were screened using human rights criteria				●
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken				●
G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms				●
<b>Society: Social</b>					
G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programmes		38-40	39	
G4-SO2	Operations with significant actual and potential negative impacts on local communities				●
G4-SO3	Business units analysed for corruption risks				●
G4-SO4	Employees trained in anti-corruption policies and procedures	●			●
G4-SO5	Confirmed incidents of corruption and actions taken				●
G4-SO6	Total value of political contributions by country and recipient/beneficiary				●
G4-SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes				●
<b>Product Responsibility: Social</b>					
GR-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement				●
GR-PR2	Non-compliance with regulations and codes for health and safety of products	●	22-23	36	●
GR-PR3	Information required by procedures				●
GR-PR4	Non-compliance for information and labelling				●
GR-PR5	Results of surveys measuring customer satisfaction				●
GR-PR6	Sale of banned or disputed products				●
GR-PR7	Non-compliance to marketing communications laws and standards				●
GR-PR8	Substantiated complaints for breaches of customer privacy or data loss				●
GR-PR9	Monetary value of fines for regulatory non-compliance				●

# Glossary

## The following abbreviations are used in this report:

<b>AEO</b>	Authorised Economic Operator	<b>IT</b>	Information Technology
<b>AO</b>	Alkoxylation	<b>kg</b>	Kilogram
<b>API</b>	Active Pharmaceutical Ingredient	<b>km</b>	Kilometre
<b>ARA</b>	Annual Report and Accounts	<b>KPI</b>	Key Performance Indicator
<b>BITC</b>	Business in the Community	<b>LDG</b>	Leadership Development Group
<b>BOD</b>	Biochemical Oxygen Demand	<b>LMS</b>	Learning Management System
<b>BoS</b>	Basis of Safety	<b>LTI</b>	Lost time injury
<b>CDP</b>	Carbon Disclosure Project	<b>m<sup>3</sup></b>	Cubic metre
<b>CEN</b>	European Committee for Standardisation	<b>NSAPI</b>	National Skills Academy for the Process Industries
<b>CHP</b>	Combined Heat and Power	<b>OHSAS</b>	Occupational Health & Safety Advisory Services
<b>CO<sub>2</sub></b>	Carbon Dioxide	<b>PDCA</b>	Plan-Do-Check-Act
<b>CSPO</b>	Certified Sustainable Palm Oil	<b>PKO</b>	Palm Kernel Oil
<b>DHA</b>	Docosahexaenoic Acid	<b>PO</b>	Palm Oil
<b>EBITDA</b>	Earnings Before Interest, Taxation, Depreciation and Amortisation	<b>PRA</b>	Process Risk Assessment
<b>ECFA</b>	Event and Causal Factor Analysis	<b>PRR</b>	Process Risk Review
<b>EFfCI</b>	European Federation for Cosmetic Ingredients	<b>PSM</b>	Process Safety Management
<b>EO</b>	Ethylene Oxide	<b>QA</b>	Quality Assurance
<b>EPA</b>	Eicosapentaenoic Acid	<b>QRA</b>	Quantitative Risk Assessment
<b>ETP</b>	Effluent Treatment Plant	<b>R&amp;D</b>	Research and development
<b>GDP</b>	Graduate Development Programme	<b>RSPO</b>	Roundtable on Sustainable Palm Oil
<b>GHG</b>	Greenhouse Gas	<b>SHE</b>	Safety, Health and Environment
<b>GJ</b>	Gigajoule	<b>SHEQ</b>	Safety, Health, Environment and Quality
<b>GMP</b>	Good Manufacturing Practices	<b>SR</b>	Sustainability Report
<b>GRI</b>	Global Reporting Initiative	<b>STEM</b>	Science, Technology, Engineering and Mathematics
<b>HERO</b>	High Erucic Rape Oil	<b>Te</b>	Tonne
<b>HR</b>	Human Resources	<b>Te CO<sub>2e</sub></b>	Tonne Carbon Dioxide Equivalent
<b>HSE</b>	Health and Safety Executive	<b>UK</b>	United Kingdom
<b>ILO</b>	International Labour Organisation	<b>VOC</b>	Volatile Organic Compound
<b>IRB</b>	Istituto Di Ricerche Biotechnologiche	<b>Yr</b>	Year
<b>ISO</b>	International Organisation for Standardisation		

### Cautionary Statement

The information in this publication is believed to be accurate at the date of its publication and is given in good faith but no representation or warranty as to its completeness or accuracy is made. Suggestions in this publication are merely opinions. Some statements and in particular forward-looking statements, by their nature, involve risks and uncertainties because they relate to events and depend on circumstances that will or may occur in the future and actual results may differ from those expressed in such statements as they depend on a variety of factors outside the control of Croda International Plc. No part of this publication should be treated as an invitation or inducement to invest in the shares of Croda International Plc and should not be relied upon when making investment decisions.

Designed by  
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