

**Croda International Plc – A leader in Sustainability**  
**Investor seminar**

20 October 2020



# Cautionary statement

This presentation is intended to focus on matters which are relevant to the interests of shareholders in the Company. The purpose of the review is to assist shareholders in assessing the strategies adopted and performance delivered by the Company and the potential for those strategies to succeed. It should not be relied upon by any other party or for any other purpose. Forward looking statements are made in good faith, based on a number of assumptions concerning future events and information available to the Directors at the time of their approval of this report. These forward looking statements should be treated with caution due to the inherent uncertainties underlying such forward looking information. The user of this review should not rely unduly on these forward looking statements, which are not a guarantee of performance and which are subject to a number of uncertainties and other facts, many of which are outside the Company's control and could cause actual events to differ materially from those in these statements. No guarantee can be given of future results, levels of activity, performance or achievements.

All views expressed by external speakers are those of the speakers themselves and do not necessarily represent the views of Croda.

Front cover image: Rapeseed flower – 63% of our organic raw materials are bio-based, including rapeseed oil

# About Croda – the markets we serve



Personal Care



Beauty Effects



Beauty Formulation



Life Sciences



Health Care



Crop Protection



Seed Enhancement



Performance Technologies



Energy Technologies



Smart Materials



Home, Fabric and Water

# Agenda

## Part one: 1400 – 1530 BST

### Croda's Sustainability Strategy

- The Sustainability challenge
- Our Purpose
- Our Sustainability strategy
- Delivering our Sustainability strategy
- Becoming Climate Positive
- Q&A

Break

## Part two: 1530 – 1700 BST

### Delivering Sustainability to our customers

- Customer perspectives
- Opportunities for Croda
  - Consumer markets
  - Life Sciences
- CEO concluding remarks
- Q&A

# Meet the team

## Meet the Croda team



**Steve Foots**  
CEO



**Maarten Heybroek**  
Sector President



**Jennifer Hart**  
Managing Director,  
Beauty Effects



**Nick Challoner**  
Sector President



**Stuart Arnott**  
President,  
Sustainability



**Phil Ruxton**  
Vice President,  
Sustainability



**Julia Creasey**  
Sustainability  
Manager



**Chris Sayner**  
Vice President,  
Customer Alliances

## Introducing our guests



**Aris Vrettos**  
Director, Cambridge Institute of  
Sustainability Leadership



**Kyra Constanze Pauly**  
Head of Strategy & Impact  
Programs, Bayer



**Thomas Udesen**  
Chief Procurement Officer,  
Bayer



**Uwe Bergmann**  
Director Sustainability  
Management, Henkel

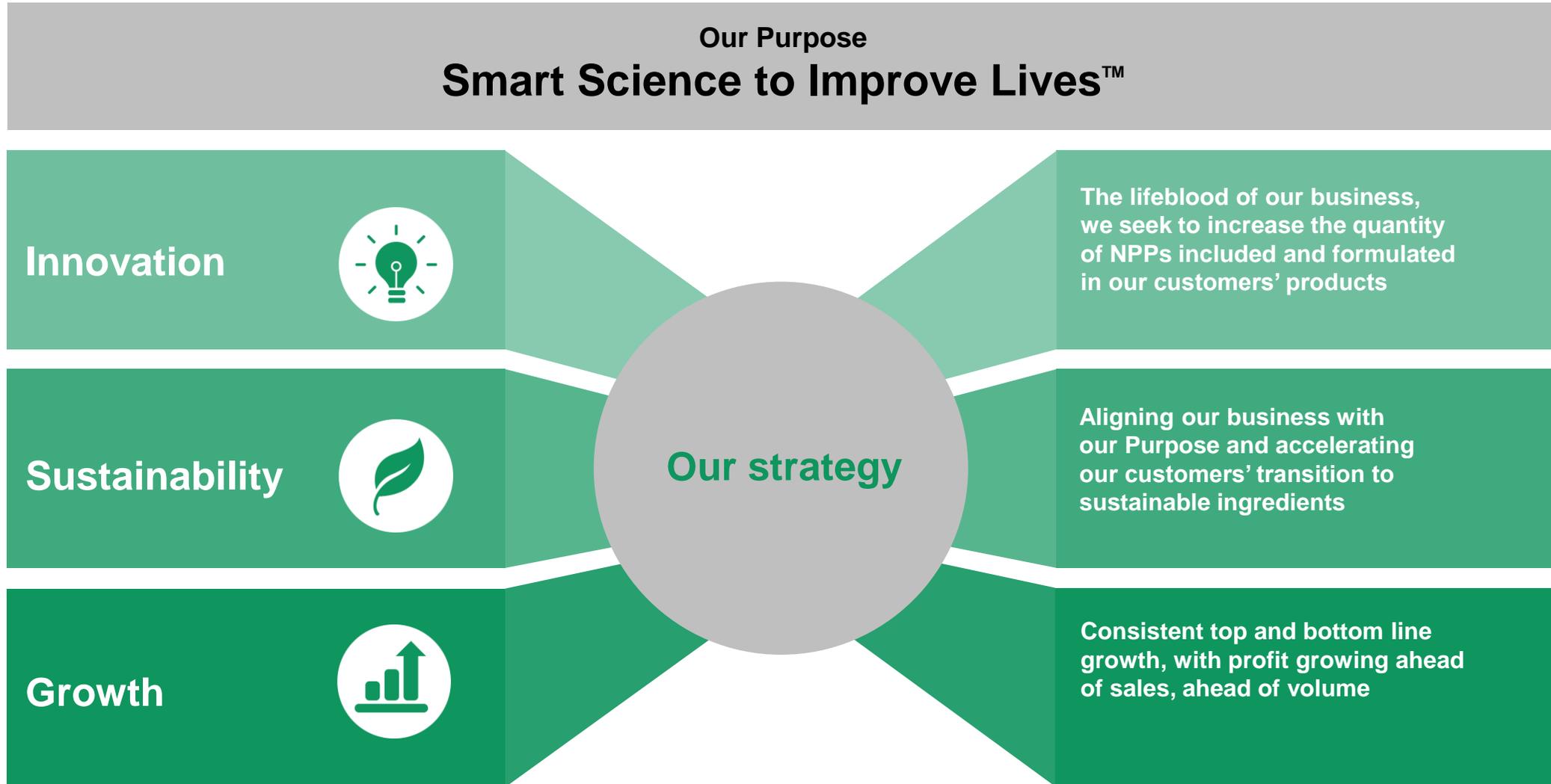
# Our Purpose



**Steve Fouts – Chief Executive Officer**

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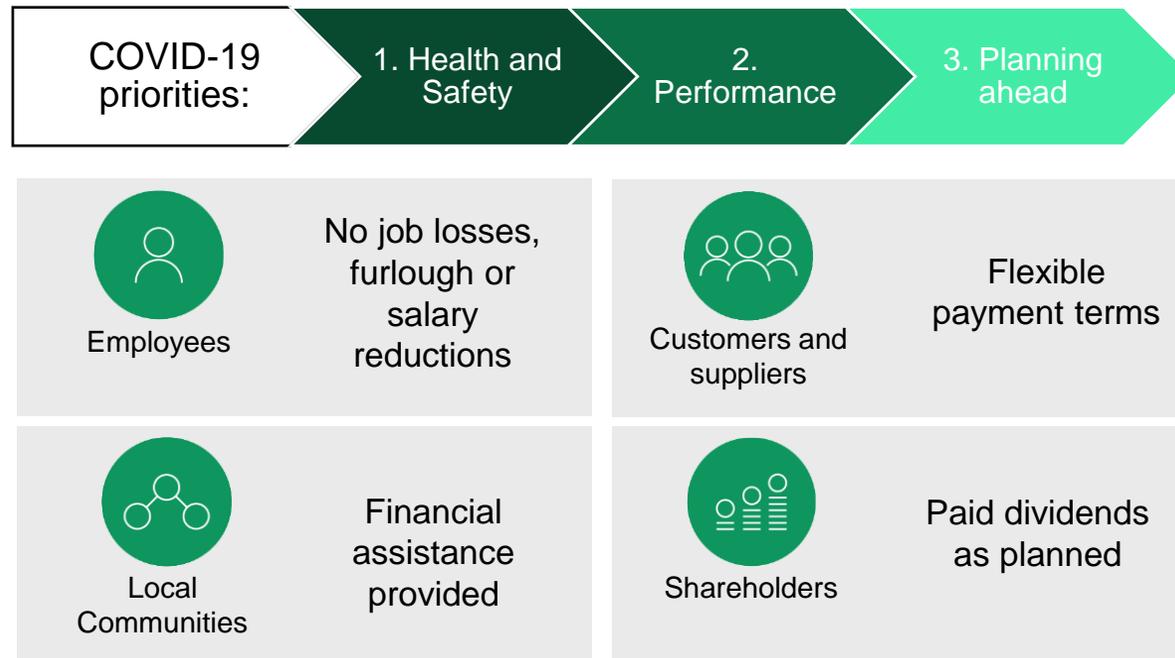
# Strategy: Innovation + Sustainability = Growth



# Embedding our Purpose through our actions

Our Purpose – Smart Science to Improve Lives™

## Living our Purpose in COVID-19



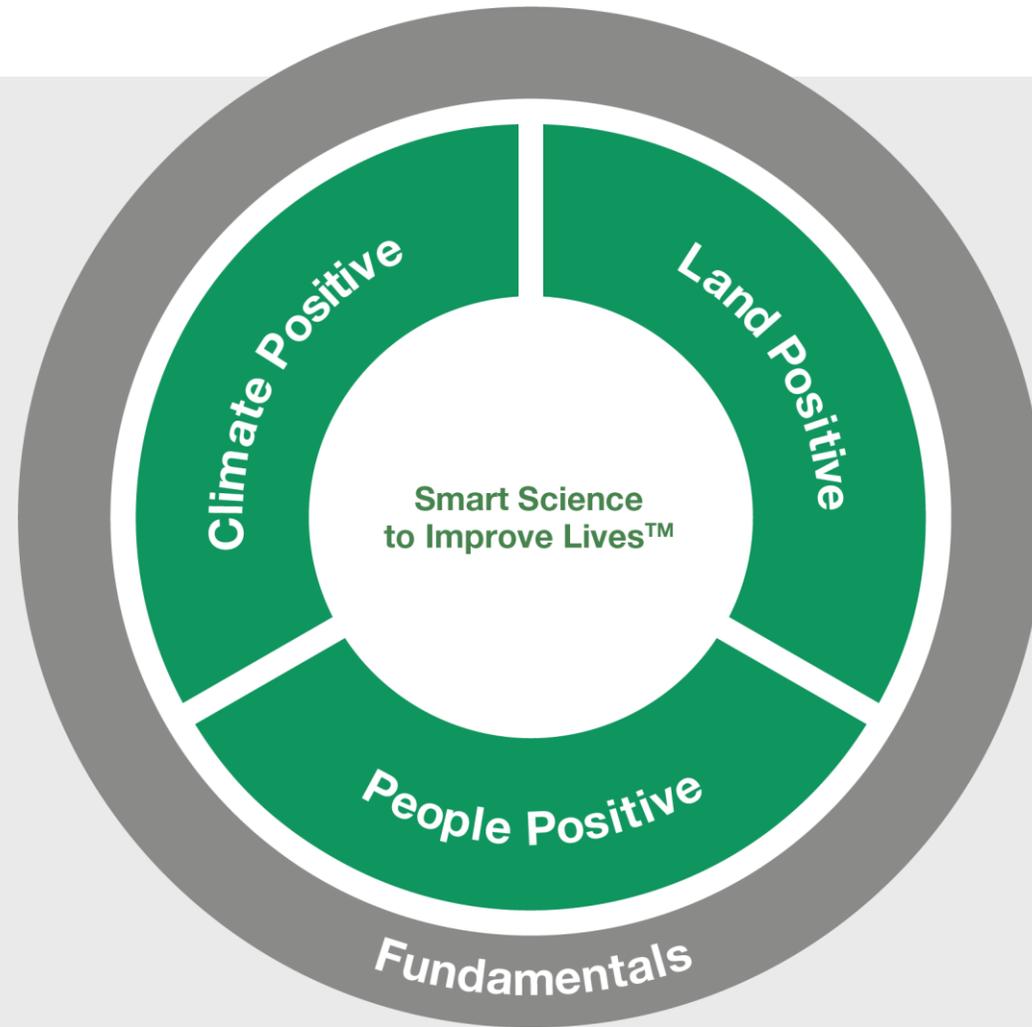
Treating all our stakeholders fairly

# Our Sustainability Commitment

## Our 2030 Commitment

By 2030 we will be Climate, Land and People Positive  
As part of this Commitment, we will become the most sustainable supplier of innovative ingredients

## Our priority SDGs



# Embedding Sustainability through delivering our Commitment



## • Climate Positive

- Sustainable products that save customers carbon
- Decarbonising Croda
- Transition to bio-based



## • People Positive

- Saving lives in Health Care
- Improving lives of employees, partners and communities
- Increasing diversity and inclusion



## • Land Positive

- Accelerating crop innovation to boost yields and save land
- Developing technologies to respond to the impact of climate change on land use



## • Leadership

- Executive Committee champion – sole remit
- Sustainability KPIs for leadership remuneration
- Engaged employees

# Embedding Sustainability through acquisition and partnership



Biosector



**IRB plant stem cell cultures**

**15 LIFE ON LAND**

**40% of new Beauty Active product launches**

**Incotec seed coatings**

**2 ZERO HUNGER**

**High single digit % growth in field crops**

**Biosector vaccine adjuvants**

**3 GOOD HEALTH AND WELL-BEING**

**25% growth H1 2020  
Double digit % future growth**

**100% bio-based surfactants**

**12 RESPONSIBLE CONSUMPTION AND PRODUCTION**

**US\$20m pa pipeline**

**Avanti lipid nanoparticles**

**3 GOOD HEALTH AND WELL-BEING**

**Mid-teen CAGR**

CAGR is compound annual growth rate

Smart Science to Improve Lives™

# Our Sustainability strategy

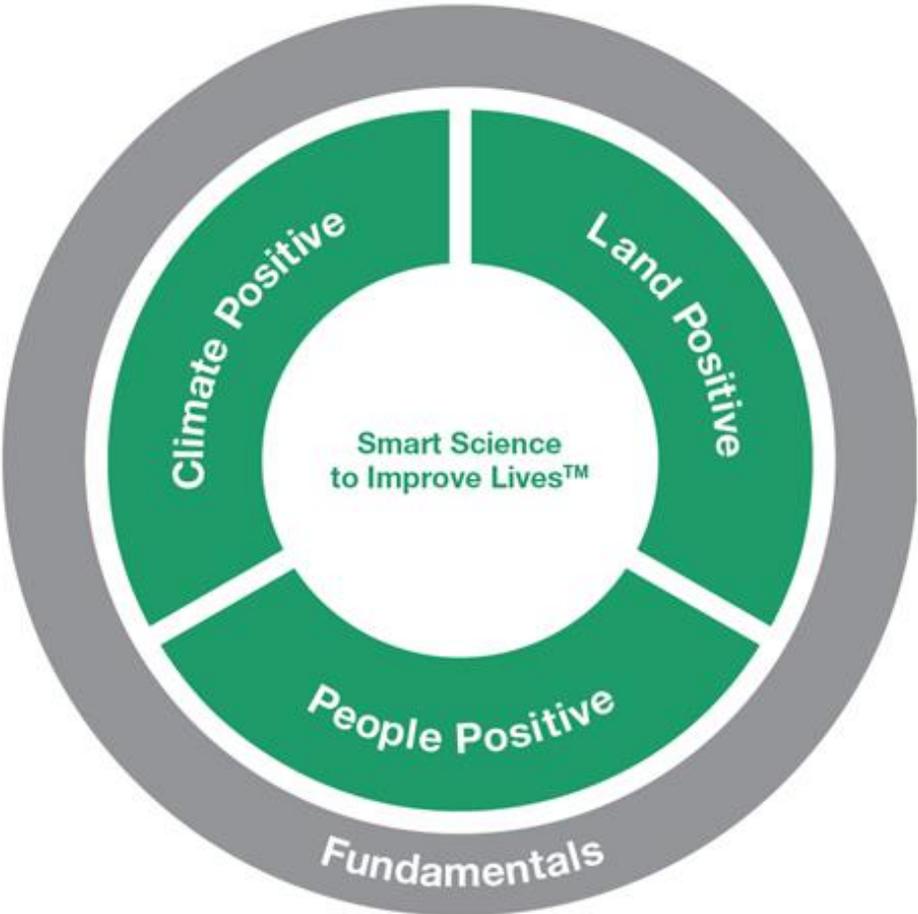


Stuart Arnott – President, Sustainability

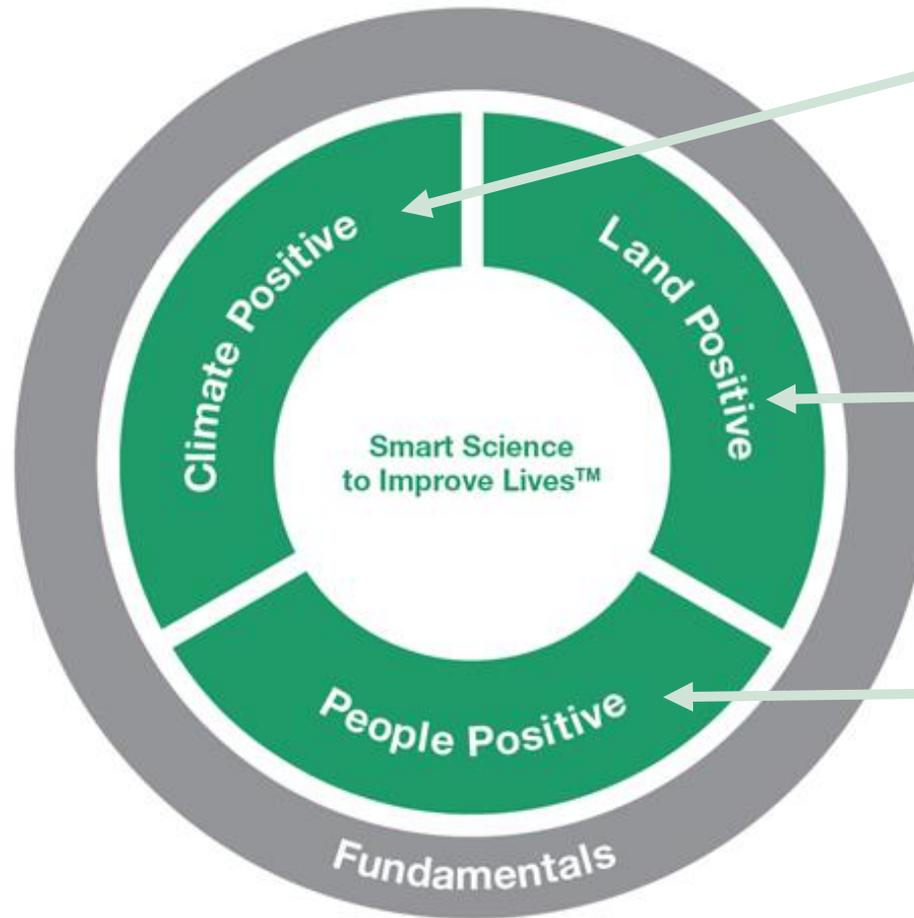
# The United Nations Sustainable Development Goals (SDGs)



# Climate, Land and People Positive



# Aligning our strategy with the UN SDGs



## Climate Positive

**Carbon Cover**

7 AFFORDABLE AND CLEAN ENERGY    13 CLIMATE ACTION    17 PARTNERSHIPS FOR THE GOALS

**Reducing Emissions**

7 AFFORDABLE AND CLEAN ENERGY    9 INDUSTRY, INNOVATION AND INFRASTRUCTURE    13 CLIMATE ACTION

**Sustainable Innovation**

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE    12 RESPONSIBLE CONSUMPTION AND PRODUCTION    13 CLIMATE ACTION

## Land Positive

**Land Use**

2 ZERO HUNGER    12 RESPONSIBLE CONSUMPTION AND PRODUCTION    15 LIFE ON LAND

**Crop Science Innovation**

2 ZERO HUNGER    12 RESPONSIBLE CONSUMPTION AND PRODUCTION    15 LIFE ON LAND    17 PARTNERSHIPS FOR THE GOALS

## People Positive

**Health & Wellbeing**

3 GOOD HEALTH AND WELL-BEING    17 PARTNERSHIPS FOR THE GOALS

**Improving More Lives**

1 NO POVERTY    3 GOOD HEALTH AND WELL-BEING    4 QUALITY EDUCATION    6 CLEAN WATER AND SANITATION    17 PARTNERSHIPS FOR THE GOALS

**Gender Balance**

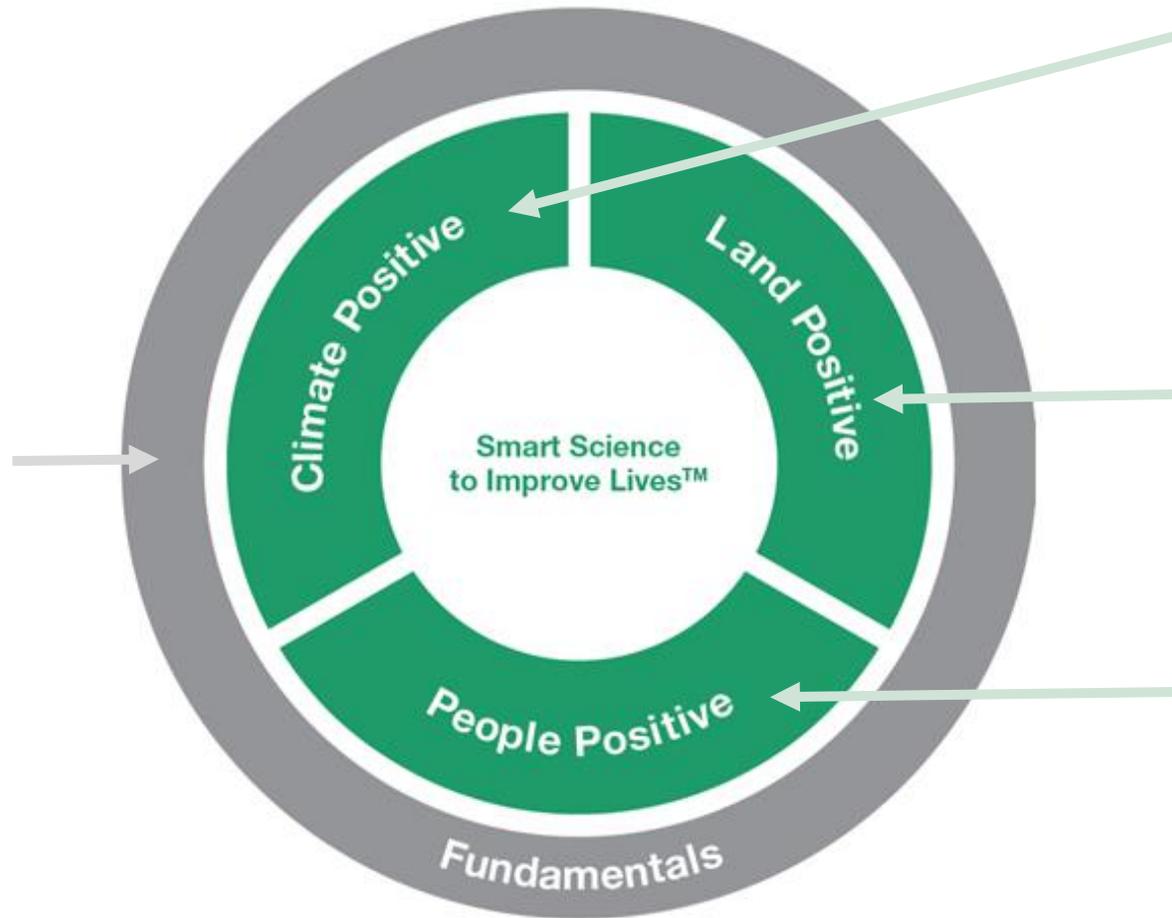
5 GENDER EQUALITY

# Aligning our strategy with the UN SDGs

**Fundamentals**

- Health, Safety & Wellbeing
- Process Safety
- Environmental Stewardship
- Fair Income
- Supplier Partnership
- Knowledge Management
- Quality Assurance
- Product Stewardship
- Responsible Business

Fundamentals data pack available



**Climate Positive**

- Carbon Cover
- Reducing Emissions
- Sustainable Innovation

**Land Positive**

- Land Use
- Crop Science Innovation

**People Positive**

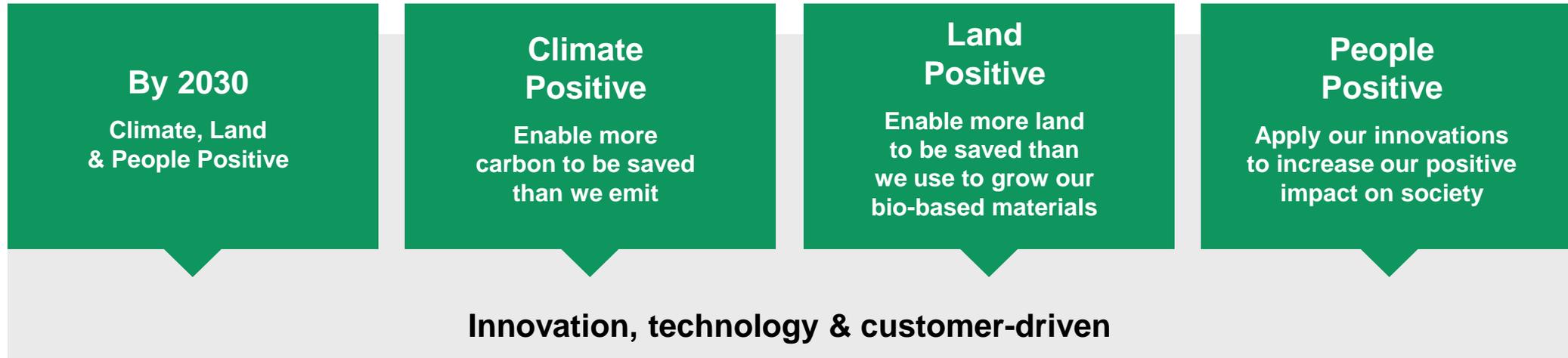
- Health & Wellbeing
- Improving More Lives
- Gender Balance

# A sense of urgency

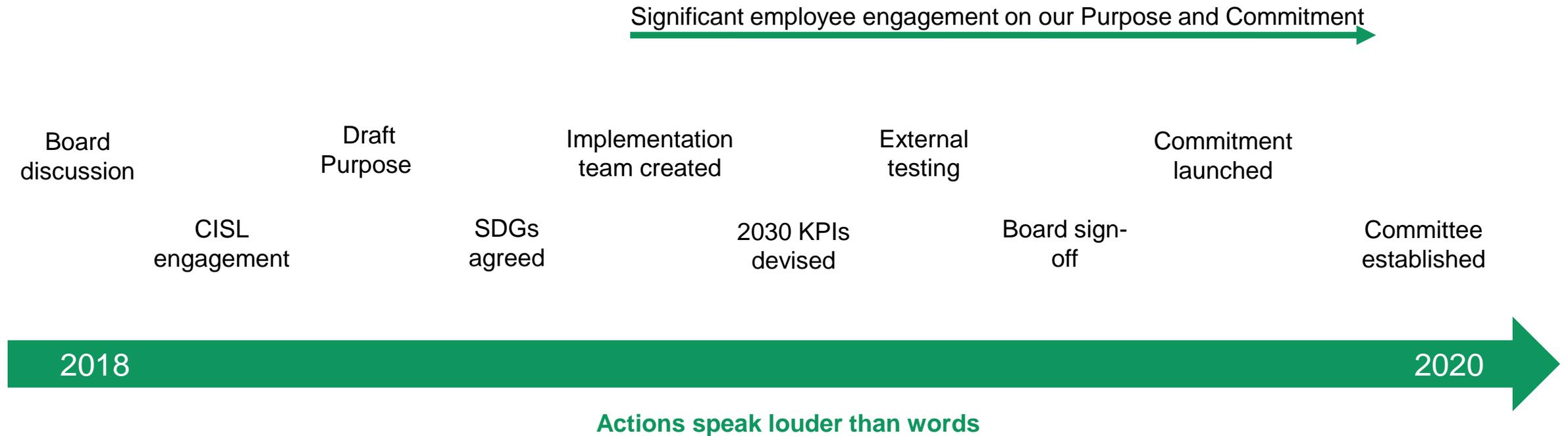


**DECADE  
OF >>>  
ACTION**

# A restorative strategy



# A strategy built by our people



APEs, or Alkyl phenols, have potential for adverse effects on health and the environment

# By 2030 we will be Climate Positive

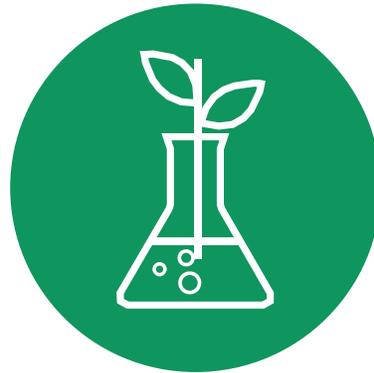
We will continue to reduce our carbon footprint and increase our use of bio-based raw materials, whilst the benefits in use of our ingredients will enable more carbon to be saved than we emit through our operations and supply chain



## Reducing emissions

By 2030, we will have achieved our SBTs, in line with limiting global warming to 1.5°C

By 2050, we will be a net zero organisation



## Sustainable innovation

By 2030, over 75% of our organic raw materials by weight will be bio-based, absorbing carbon from the atmosphere as they grow

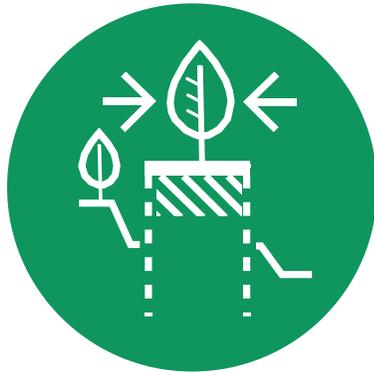


## Carbon cover

By 2030, use of our products will avoid four times the carbon emissions associated with our business, our 4:1 carbon cover

# By 2030 we will be Land Positive

Our products will enable more land to be saved than is used to grow our bio-based raw materials. Our innovation will help customers to mitigate the impact of climate change and land degradation, increasing the availability of land suitable for growing crops



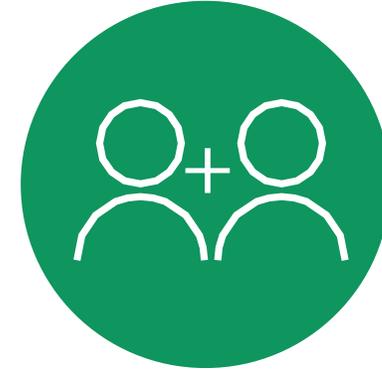
## Land use

By 2030, the land area saved through the improved yields as a result our ingredients and technologies will exceed that used to grow our raw materials



## Crop science innovation

We will bring an average of two Crop technologies to market each year that help our customers mitigate the impact of climate change



## Partnerships

By 2030, we will have established three new partnerships to contribute to the recovery of compromised farmland

# By 2030 we will be People Positive

We will apply our innovation to increase our positive impact on society. We are improving the lives of our own employees and people around the world by developing ingredients to improve health and wellbeing as well as encouraging and promoting diversity



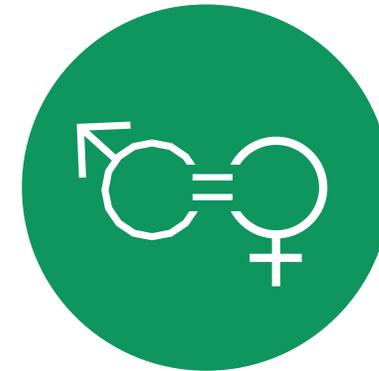
## Health and Wellbeing

By 2030, we will contribute to the development of 25% of WHO-listed pipeline vaccines and protect at least 60m people pa from harmful UV rays



## Improving lives: Croda Foundation

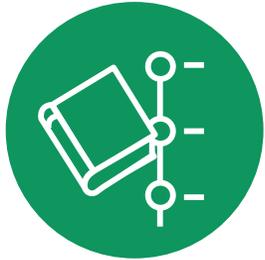
We will establish and fund a Croda Foundation to help improve more lives in our local communities, supported by our technologies



## Gender balance

By 2030, we will achieve gender balance across the leadership roles in our organisation

# The Croda difference – why we will succeed



## **Our History**

Sustainability is enshrined in our heritage, right from the very beginning



## **Our People**

We have at our core a can-do, family spirit, working as one global team to deliver great results in a friendly, fun environment



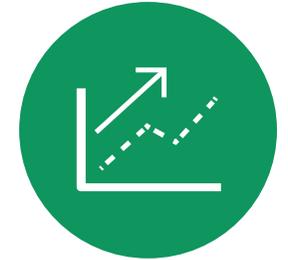
## **Our Innovation**

We have an entrepreneurial spirit, creating clever products to deliver great value to our customers



## **Our Customer Focus**

We have a laser-like focus on our customers, giving them mission critical products to transform their brands



## **Our Performance**

We have a strong track record of consistent delivery and performance

# Delivering our Sustainability strategy



Phil Ruxton – Vice President, Sustainability

# 2020 delivery – embedding our Sustainability strategy

## Winning hearts and minds



**Angelica Matos,**  
Regulatory Manager, Croda Brazil

*“By having a sustainability strategy focusing on the positive impact of Climate, Land and People, it gives a message to everyone that our company is committed to a better planet”*



**Mohsin Mohammed,**  
Process Engineer, Croda Europe

*“My involvement in this process for the Hull site has been an eye-opening experience on the importance of our sustainability commitments”*

## Driving progress

### Established Sustainability Committee

- Remit:
  - Development, measurement and delivery of Croda’s sustainability targets
  - Development of Croda’s sustainability agenda
  - Internal and external communication
- Chaired by Executive Committee member
- Drives ownership across Croda leadership, not just in the hands of specialists

## 2020 deliverables

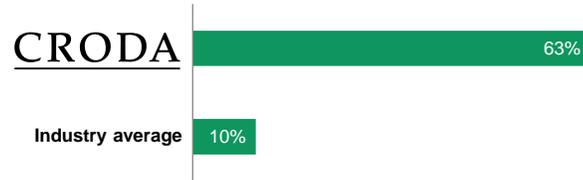
- Completion of 2016-2020 Sustainability objectives
- Decarbonisation roadmaps for key sites
- Define 2021-2025 milestones across all targets
- Refine and embed performance metrics
- Integrate “Our Commitment” into regional and sector strategies

Sustainability is no longer a specialist subject, but we have the specialists

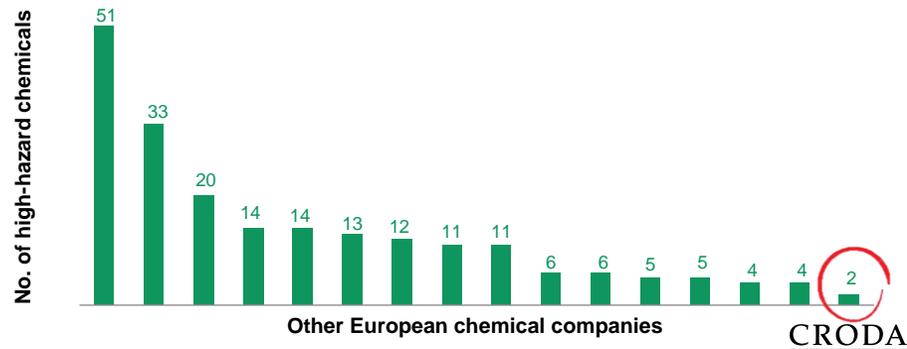
# Croda – already a leader in Sustainability

## Clearly differentiated

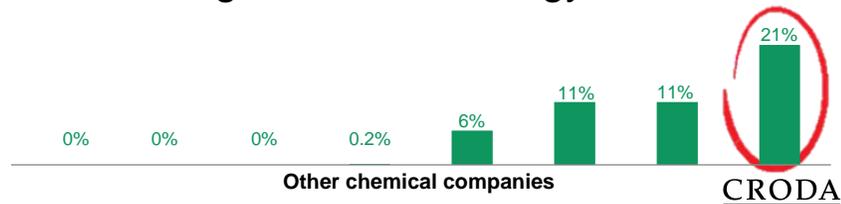
Bio-based organic raw materials



Lower hazard chemistry\*



Sector leading renewable energy use



## Externally recognised by rating agencies



## Recognised by Accenture for climate leadership

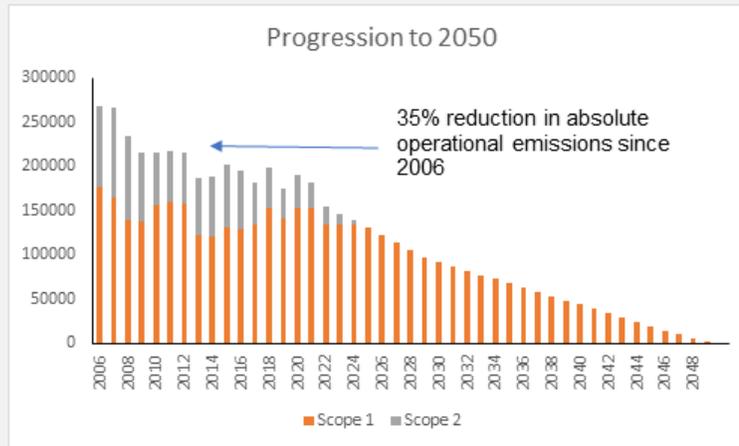
|                  | SCORE    | CRODA | Other chemical companies |   |   |   |   |   |   |
|------------------|----------|-------|--------------------------|---|---|---|---|---|---|
|                  |          |       | A                        | B | C | D | E | F | G |
| Carbon reduction | Out of 4 | 4     | 1                        | 2 | 0 | 2 | 3 | 2 | 4 |
| Carbon offset    | Out of 2 | 1     | 0                        | 0 | 0 | 1 | 0 | 0 | 2 |
| Wider leadership | Out of 4 | 3     | 0                        | 3 | 1 | 3 | 1 | 2 | 3 |

\*Source: ECHA, ChemSec SIN list, J.P. Morgan. Number of chemicals on REACH Substances of Very High Concern (SVHC) lists

Source: Accenture

# By 2019 we had already achieved a lot

## Emissions reduction



## Sustainable palm



# 99%

of sites using RSPO certified Palm Oil

## Safety

# 58%

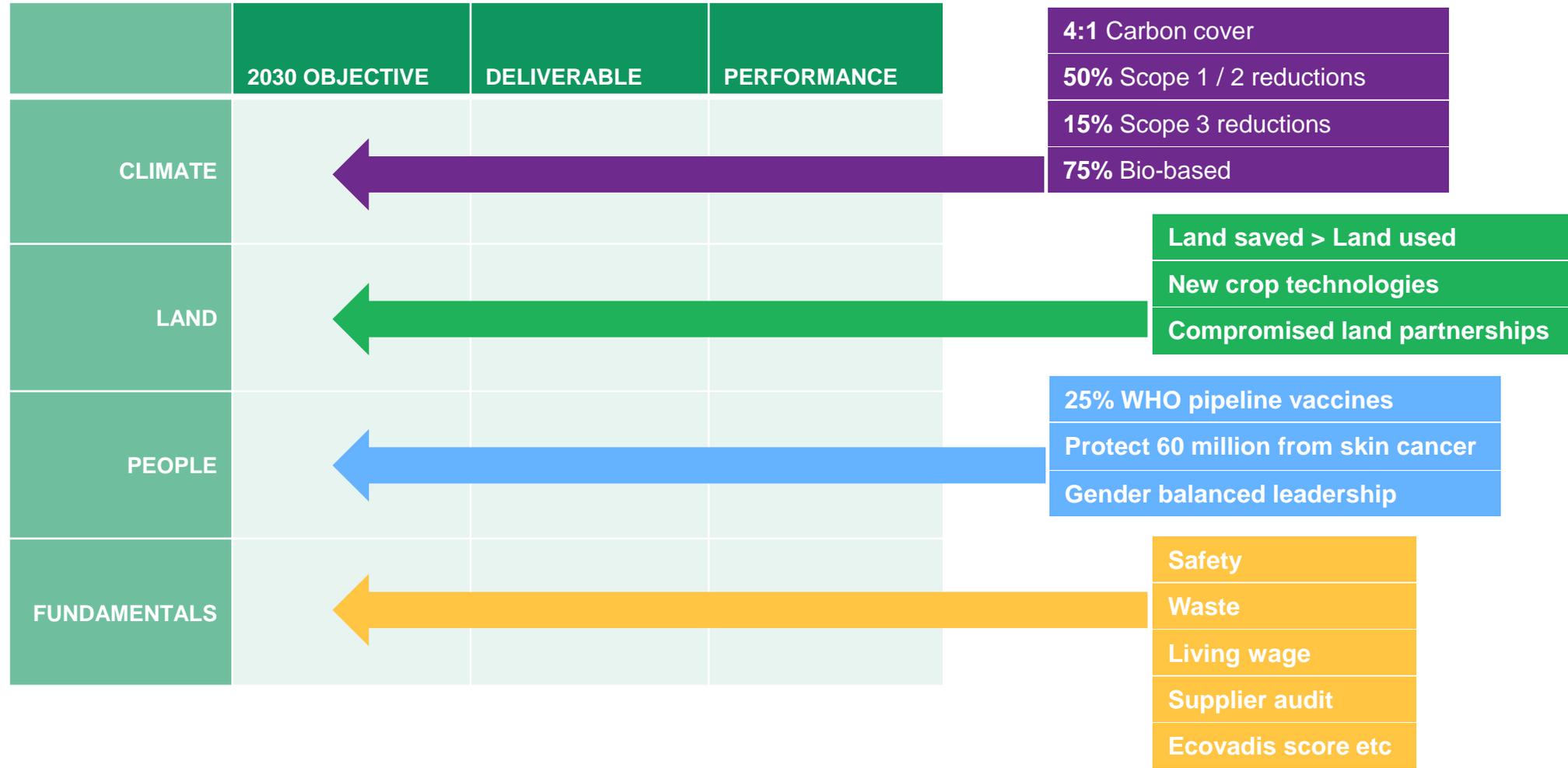
reduction in Total Recordable Injury Rate (TRIR)\*

## Health and wellbeing

- 40 million lives protected from skin cancer
- 2 billion doses of vaccine containing Croda technology

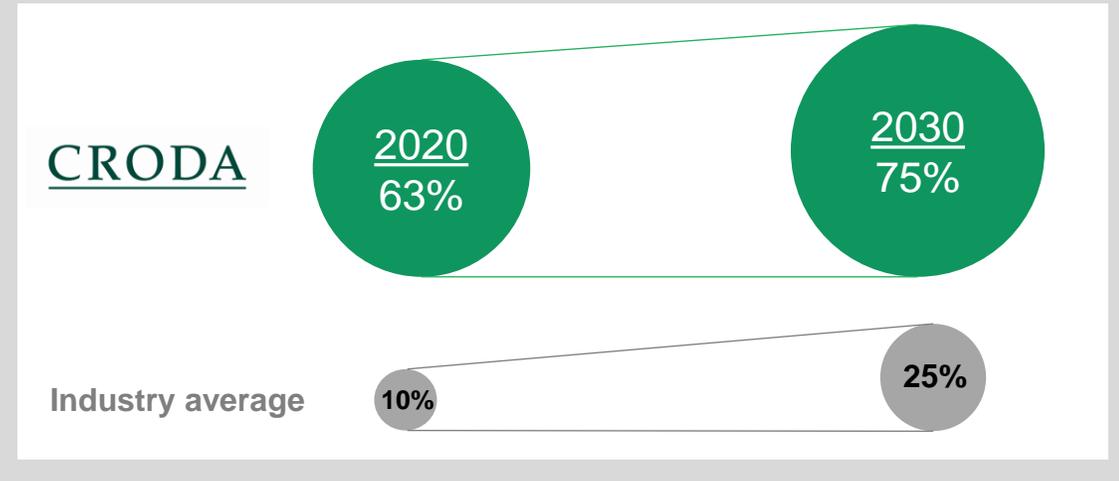
\* Reduction in the period 2015-2019

# New performance targets will drive leadership to 2030



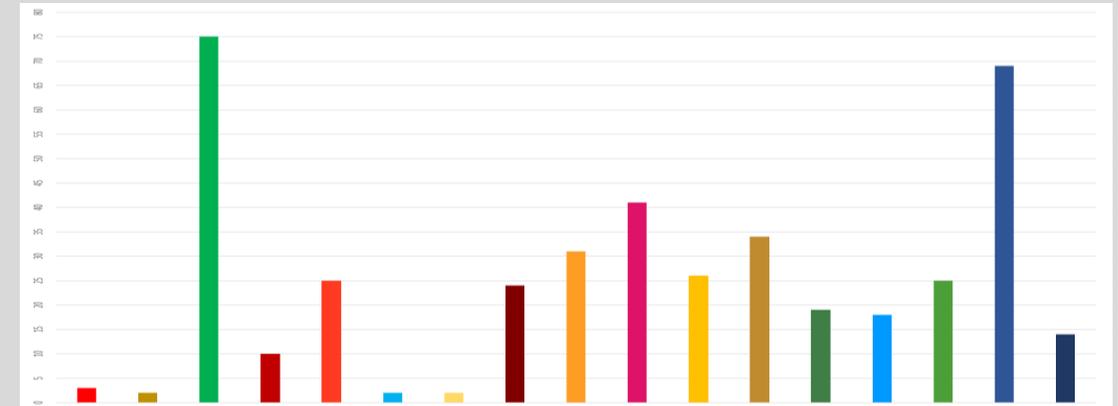
# Supported by measurement of Sustainable revenue

## Bio-based organic raw materials



## Revenue by UN SDGs

Illustrative purposes only



## “Green” revenues

Defined as those that are derived from products and services that have a positive environmental utility

**50%**  
FTSE Russell

## Guided by best practice in disclosure

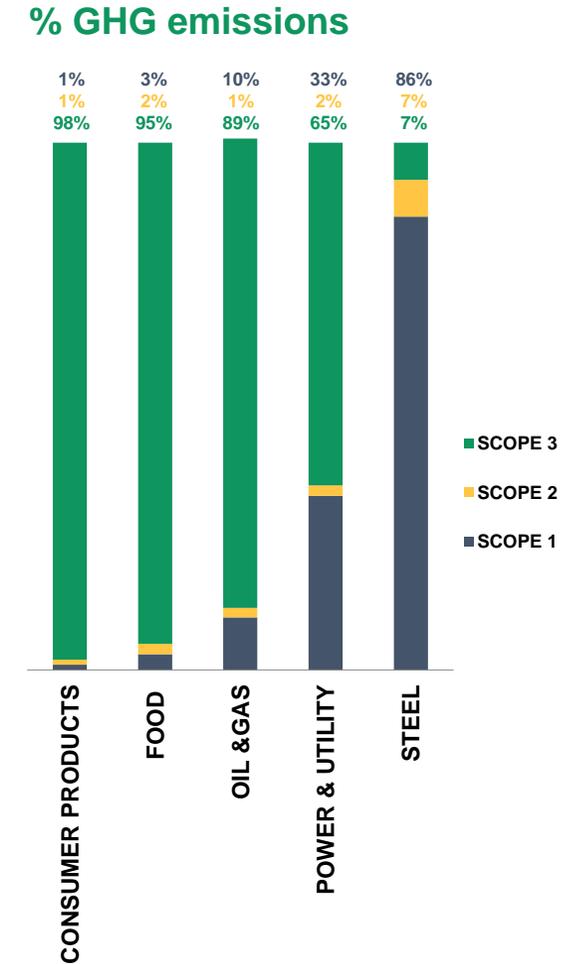
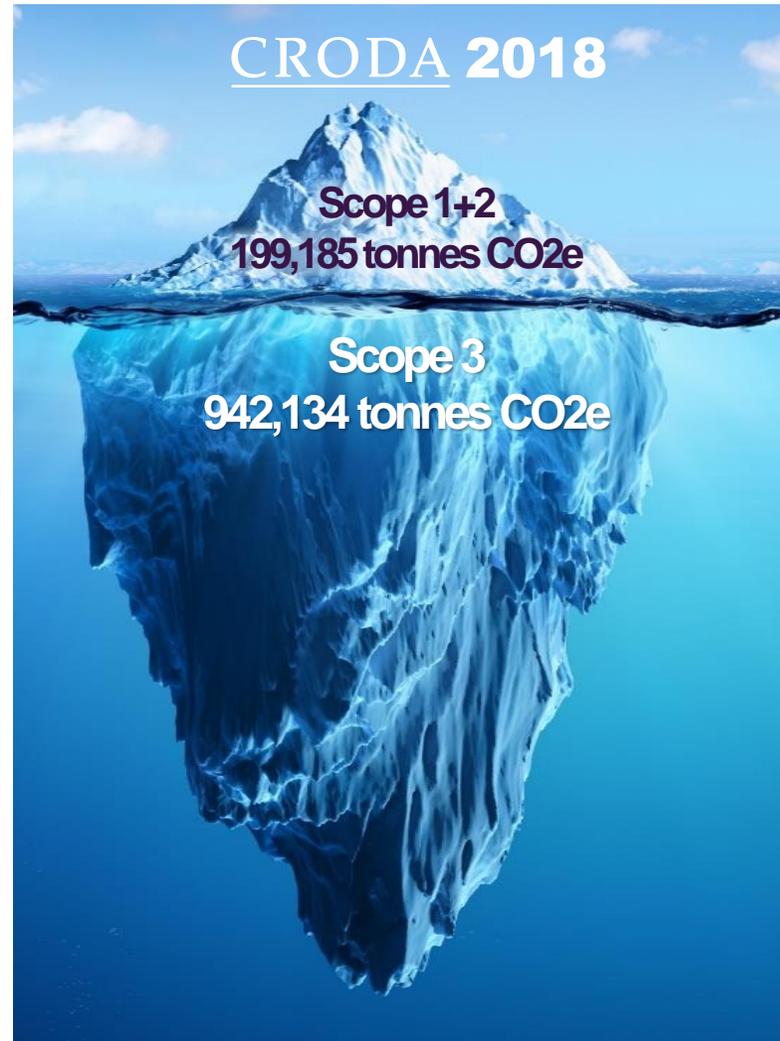
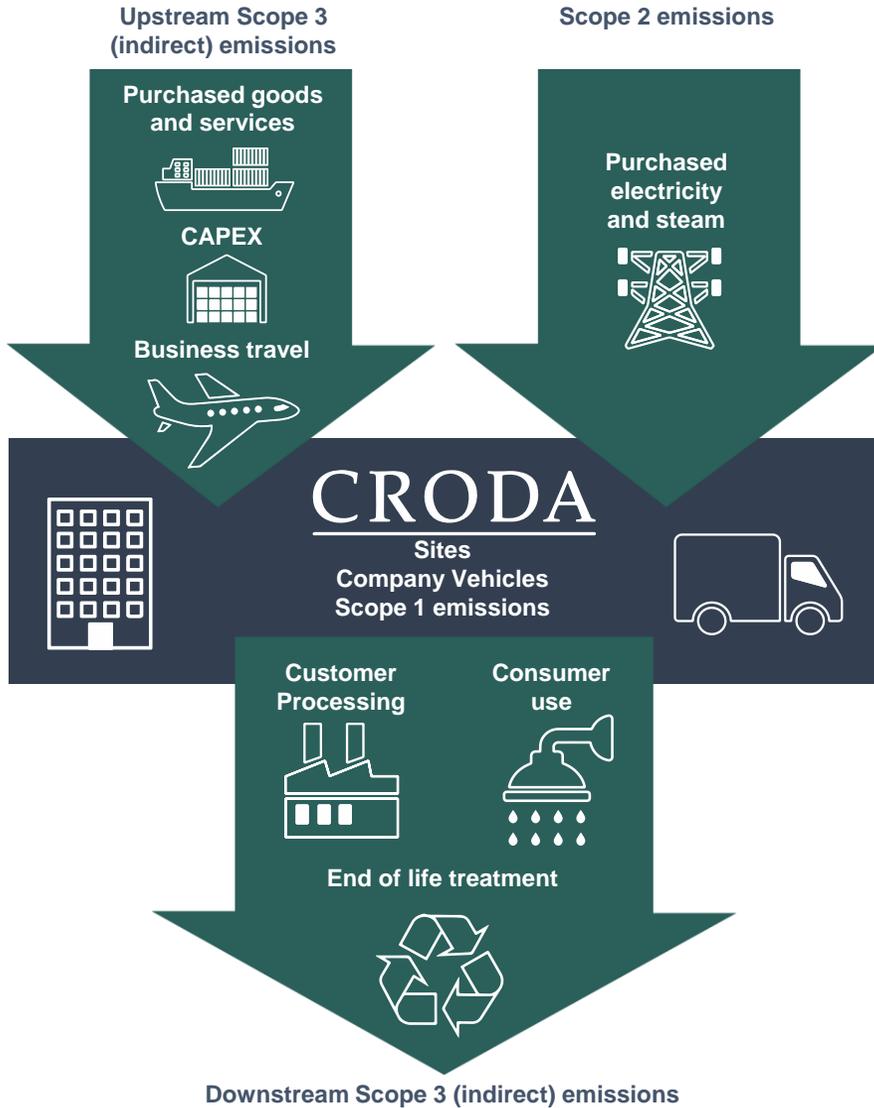


# Becoming Climate Positive



Julia Creasey – Sustainability Manager

# Understanding Croda's carbon footprint



2018 data is quoted as this is the baseline used for Croda Science Based Target related metrics

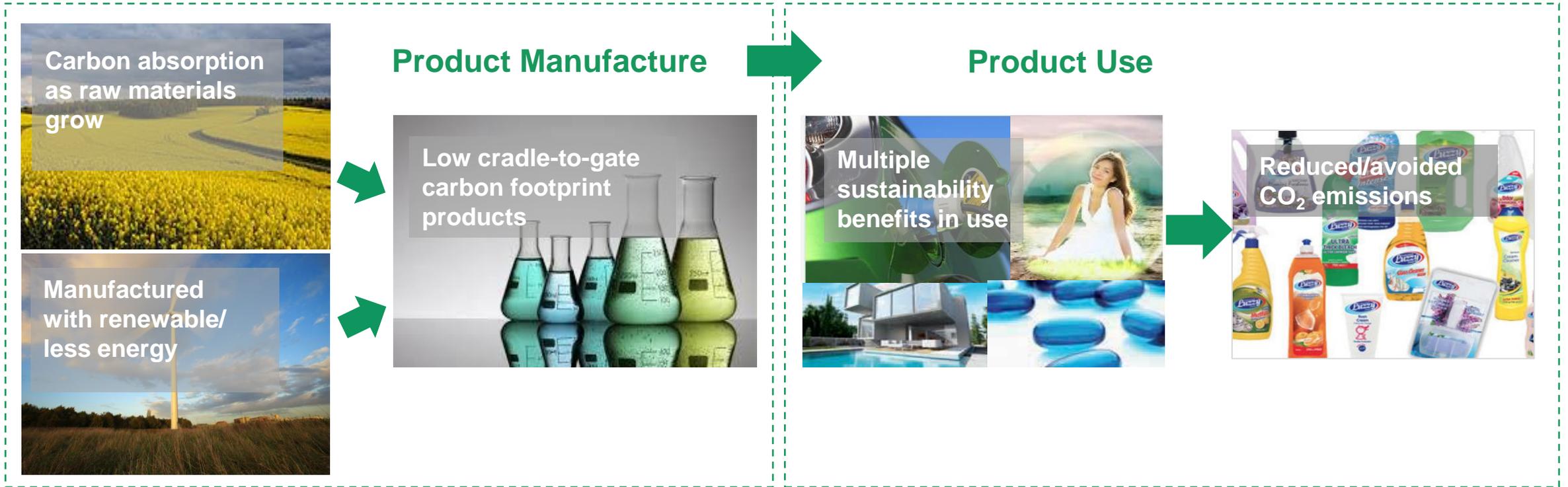
Source for % GHG emissions is interviews conducted by WBSCD and BCG in Q1 2020

# Croda's 2030 carbon objective

**Croda's carbon objective**  
**Climate Positive: enabling more carbon to be saved than we emit**

Reducing Croda's carbon footprint

Saving carbon



# How do we deliver lower carbon?

## Reducing Croda's carbon footprint Product Manufacture



### Sustainable Innovation

- Replacing petrochemical raw materials with bio-based
- Investing in biotech
- Designing bio-based products



### Reducing Emissions

- Replacing fossil fuels with renewable energy
- Reducing energy usage
- Creating new process technologies



#### Customer benefit:

- Reduces their upstream scope 3 carbon emissions

## Saving carbon Product Use



### Carbon Cover

Four externally verified case studies:

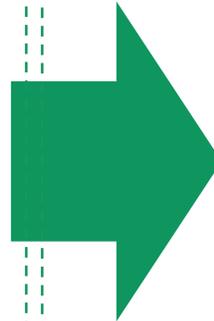
- **Coltide Radiance** for clothing lifetime extension
- **Perfad Friction Modifiers** for increased fuel efficiency
- **Maxemul surfactants** for VOC free paint
- **Priplast adhesives** for automotive light-weighting



#### Customer benefit:

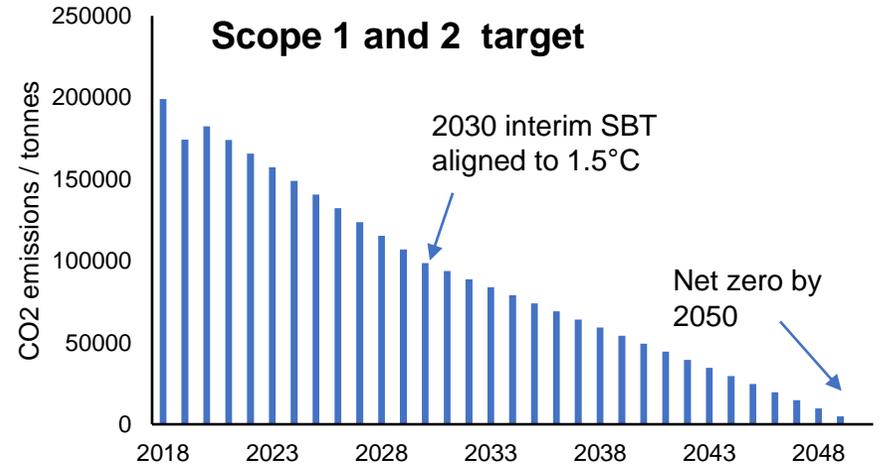
- Reduces their downstream scope 3 carbon emissions
- Provides extra value proposition for their customers
- Claims facilitate consumer engagement

# Reducing Croda's carbon footprint....



## Leadership through ambition:

- Only 8 companies in the chemical sector have validated SBTs



## Scope 3: Supply chain engagement



Croda's Science Based Targets have been submitted but are not yet verified

# ...through credible solutions

## Carbon reduction

Eliminate Reduce Reuse Substitute



- Operational efficiency measures
- Clean power / energy transition
- Supplier engagement
- Consumer behaviour measures



Focus on decarbonisation roadmaps

## Carbon compensation

GHG Removals Insetting Offsetting



*"It is important to note that companies are unlikely to achieve a net zero target without large reductions in their scope 1, 2 and 3 emissions, as the greenhouse gas removal market is immature".*  
**Carbon Trust**

## Carbon management

- Internal carbon pricing
- Product portfolio shift
- Green financing
- Technology innovation / partnerships
- New ways of working in R&D to deliver sustainable innovation



# Which will make Croda Climate Positive by 2030

## Reducing Croda's carbon footprint Product Manufacture

### Key site projects:

- On-site renewable energy production
- Zero emission capacity expansions
- Grid connectivity to renewable sources
- Novel process technologies

**2020**

Largest sites drafting roadmaps; Engage suppliers on scope 3

**2022**

All locations to have finalised roadmaps; YoY emission reductions progressing

**2030**

SBTs achieved; Path to Net Zero clear

## Saving carbon Product Use

Development of carbon cover for broader product/application to discover entire portfolio benefit

By 2030, products sold will avoid **3.8 million** tonnes CO<sub>2</sub>e

2019 sales of these products will lead to **850,500** tonnes CO<sub>2</sub> avoided throughout their lifetime

- Further discovery of avoided emissions for existing products
- Innovation to develop new products with carbon cover ratio >4:1

# Case Study: first mover advantage in Climate Positive surfactants

## Croda opportunity

- Transferring existing customers from petro-based to bio-based surfactants without sacrificing performance
- Purchased by new customers across categories
- Robust US\$20m pipeline for future annual sales
- R&D investment in next generation bio-surfactants

## Made with renewable energy

- Local landfill gas purchased for electricity and steam generation on site
- On-site solar farm generates extra renewable electricity
- Topped up to 100% renewable electricity through RECs
- 1.3m tonnes CO<sub>2</sub>e avoided since 2012



**Unilever\* to eliminate fossil-based materials in cleaning products by 2030**



By 2030, Unilever is to replace 100% carbon from fossil fuels in its cleaning and laundry formulations with renewable or recycled carbon.  
<https://www.unilever.com/news/press-releases/2020/unilever-to-invest-1-billion-to-eliminate-fossil-fuels-in-cleaning-products-by-2030.html>  
Smart Science to Improve Lives™

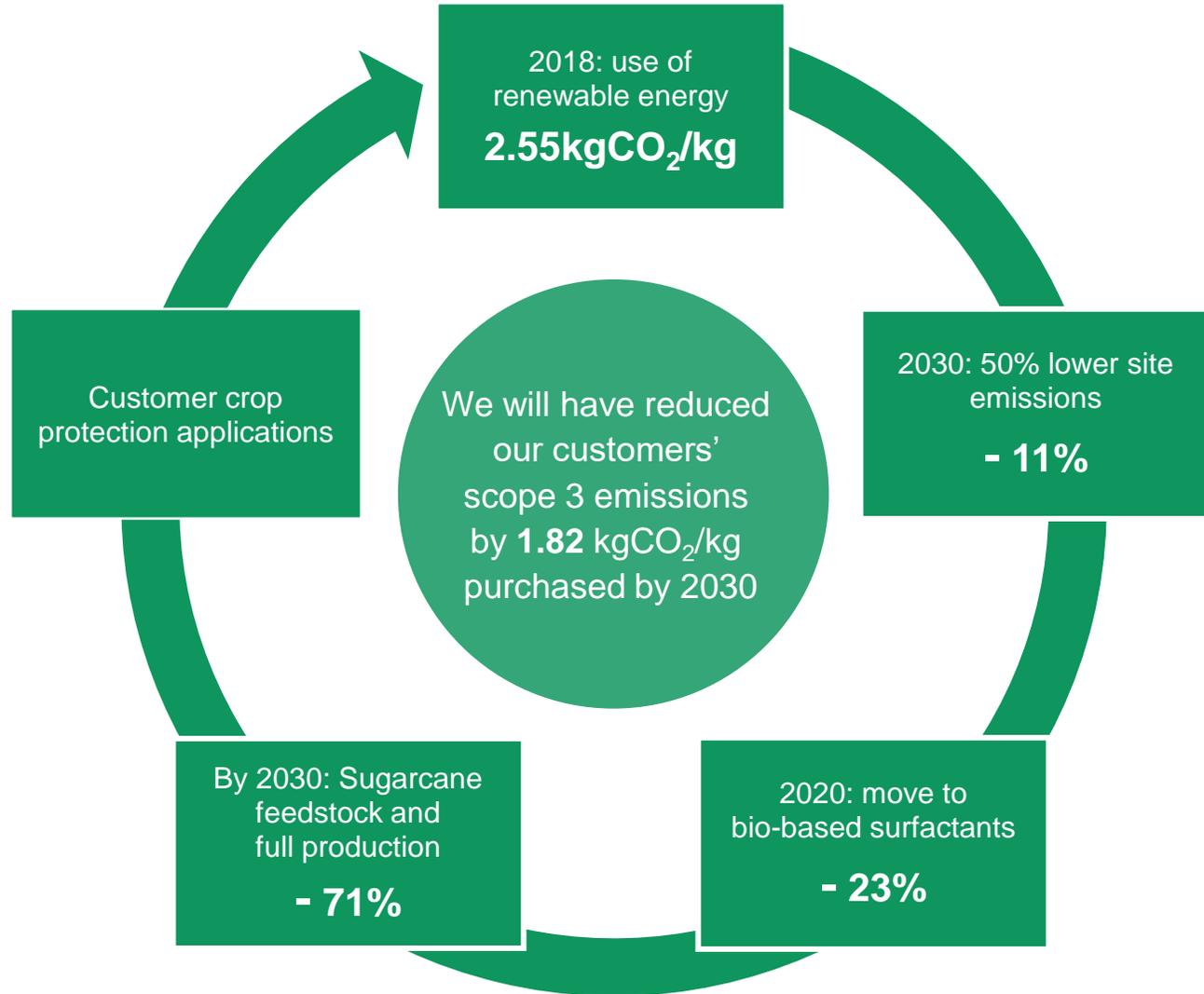
RECs are Renewable Energy Certificates

# Case Study: first mover advantage in Climate Positive surfactants

## Example – Tween™ from Croda Crop Protection

### Land Positive:

- Increased yields – minimising land use
- Reduced pesticide and changing agricultural practice, leading to avoided emissions



# Becoming Climate Positive Summary

- **Croda's Climate Positive Strategy is about saving more carbon than we emit**
- **We can support our customers in reducing their scope 3 emissions by reducing our carbon footprint, and delivering products which save carbon in use**

- **We will decarbonise credibly in order to achieve our own Science Based Targets – our proven track record gives us confidence in our ability to achieve our ambition**
- **Our Climate Positive bio-based surfactants offer carbon benefits throughout the supply chain**

# Delivering Sustainability to our customers



**Steve Foots – CEO**

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# Regulation is a key driver of change...

## Regulatory landscape



# ...But customer demand and market disruption are also creating opportunities

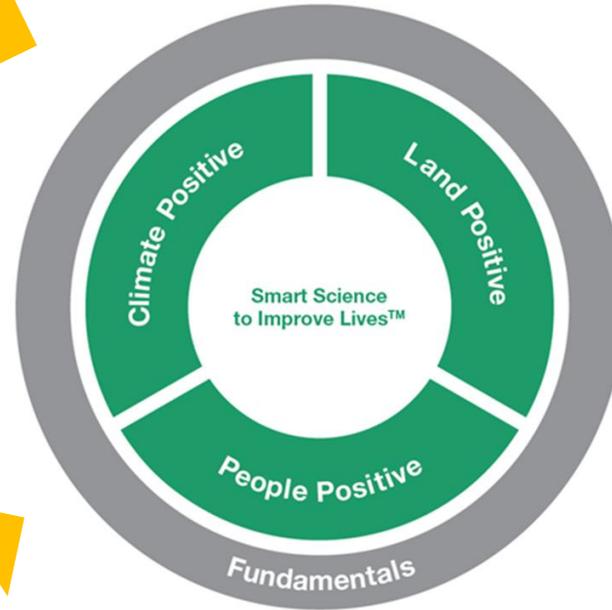
## Regulatory landscape



## Customer demand



## Market disruption



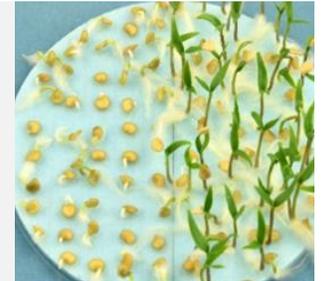
## Climate Positive

- Innovation for consumer products
- Reducing customer scope 3 emissions
- Align with customer bio-based agenda



## Land Positive

- Supply chain partnerships
- New market opportunities



## People Positive

- High growth niches for health and wellbeing
- Opportunities to improve lives

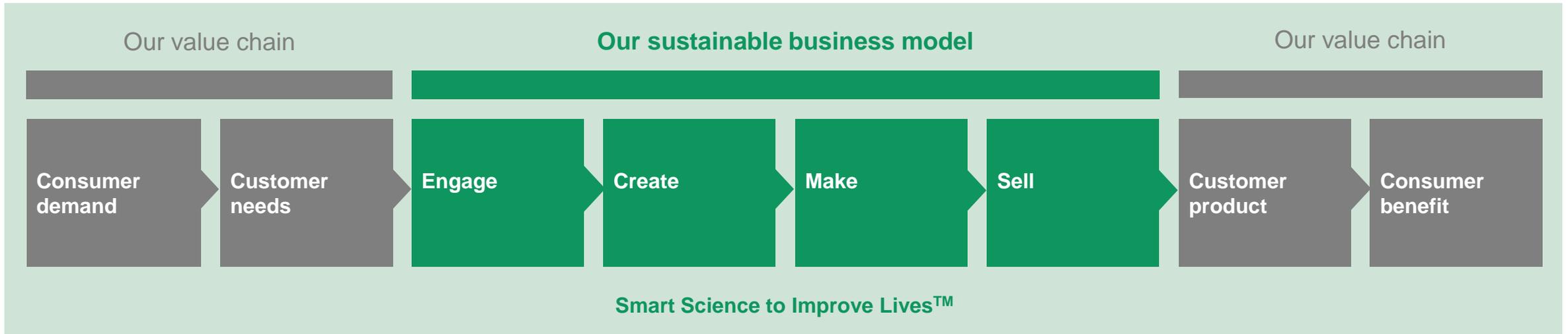


# Customer perspectives



Chris Sayner – Vice President, Customer Alliances

# Our sustainable and customer-centric model



- We sell thousands of ingredients to thousands of customers
- Through our global network and direct customer focus, every day unseen Croda technology touches virtually every one of us

# Croda – the critical link between customers and suppliers



Partnering across the supply chain

# Customer panel

Kyra Constanze Pauly



Head of Strategy & Impact Programs,  
Bayer

Thomas Udesen



Chief Procurement Officer,  
Bayer

Uwe Bergmann



Director Sustainability Management,  
Henkel

# Opportunities in consumer markets

**Maarten Heybroek** – Sector President

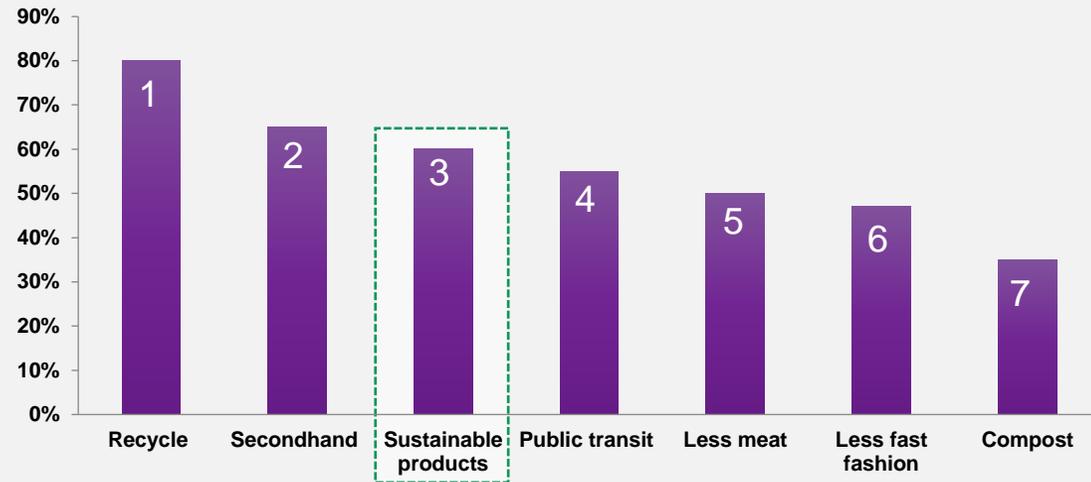
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**Jennifer Hart** – MD Beauty Effects

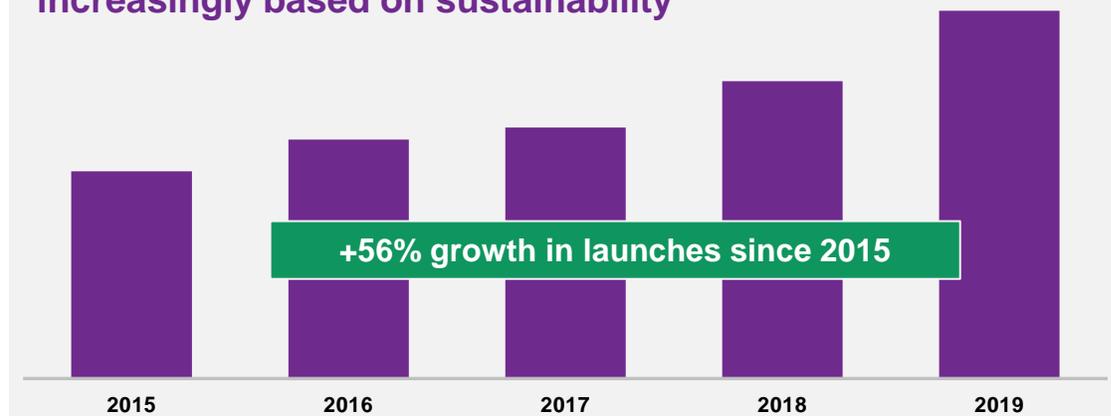
# The rise of Sustainability in consumer ingredients



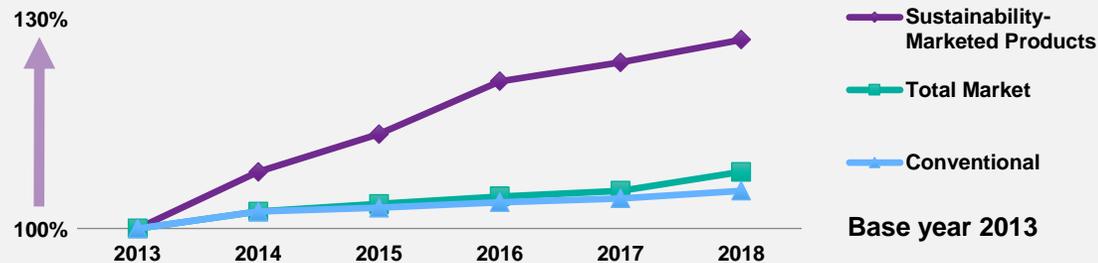
## Top 7 ways Gen Z & Millennials plan to be more 'Eco'



## New personal care global launches increasingly based on sustainability



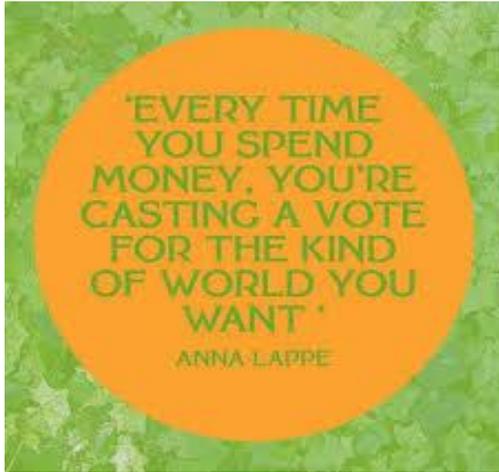
## Sustainability-marketed products grew 5.6x faster than conventionally marketed products



## Consumers demanding ingredient integrity

- 72% of consumers want a brand to explain what the ingredients do
- Over 60% of consumers want brands to identify sources for ingredients
- 51% of consumers would switch to a new personal care product if they were better able to understand what was in it

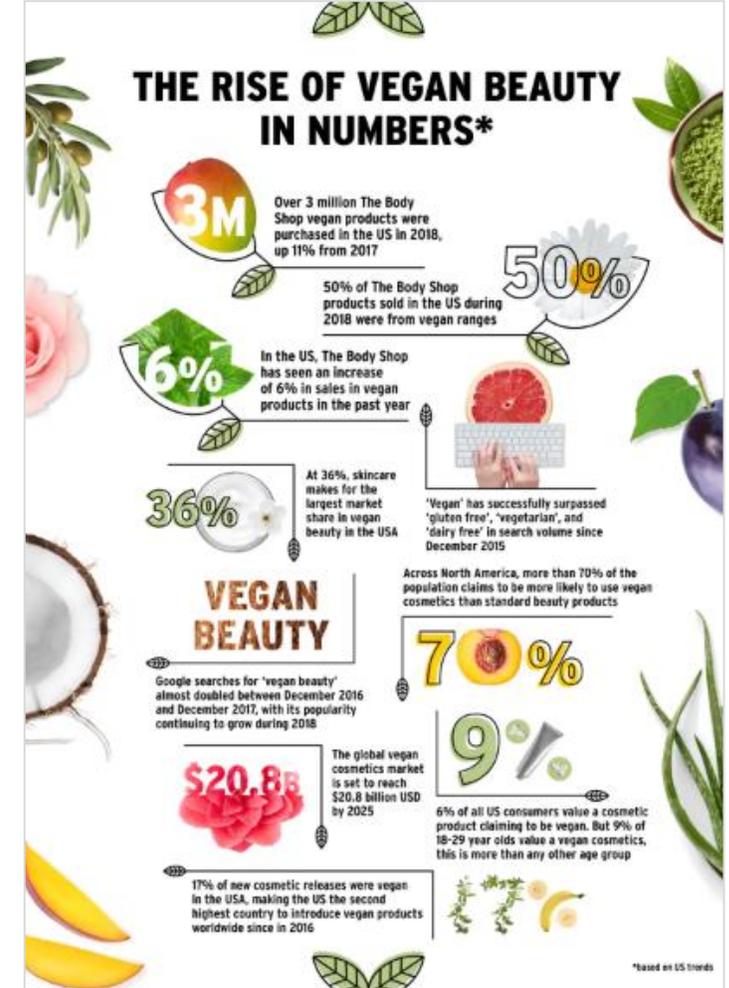
# The rise of Sustainability in consumer ingredients



**Being aware of who made your products in the supply chain is the key to conscious consumerism.**

— Kyle Parsons

TEDxUbud  
\* independently organized TED event



**By 2025, the global vegan cosmetics market is forecast to reach \$20.8bn and to exceed \$1.6bn in the US alone**

Sources: [https://www.cosmeticsbusiness.com/news/article\\_page/Cosmetics\\_Business\\_forecasts\\_5\\_Global\\_Beauty\\_Trends\\_of\\_2020\\_in\\_new\\_report/160773#conscious](https://www.cosmeticsbusiness.com/news/article_page/Cosmetics_Business_forecasts_5_Global_Beauty_Trends_of_2020_in_new_report/160773#conscious)  
<https://www.veganlifemag.com/sales-of-vegan-beauty-products-set-to-boom/>  
<https://www.thebodyshop.com/en-us/vegan>  
<https://www.tedxubud.com/blog/147742155305>

# The rise of Sustainability in consumer ingredients



## The Washington Post

### 'Clean' beauty has taken over the cosmetics industry

11 March 2020

- 39% growth for 'clean' skin care products 2019
- By 2027, Clean Beauty estimated to reach \$54bn



**Want to know exactly what's in your products?**

That's why we created Target Clean—a new, easy way to identify products formulated without specific ingredients you may not want



We live for discovering the best, cleanest indie and luxury brands around, and carry the largest collection of safe, non-toxic beauty products. So you can play, get inspired and find that you love clean beauty

Sources: [https://www.washingtonpost.com/lifestyle/wellness/clean-beauty-has-taken-over-the-cosmetics-industry-but-thats-about-all-anyone-agrees-on/2020/03/09/2ecfe10e-59b3-11ea-ab68-101ecfec2532\\_story.html](https://www.washingtonpost.com/lifestyle/wellness/clean-beauty-has-taken-over-the-cosmetics-industry-but-thats-about-all-anyone-agrees-on/2020/03/09/2ecfe10e-59b3-11ea-ab68-101ecfec2532_story.html). Clean Beauty market expected to grow from \$36bn in 2019 to \$54bn by 2027 (Future Market Insights 2019). <https://www.beautyindependent.com/target-clean-beauty-personal-care/>

# Changing legislation & consumer trends create new opportunities



- Customers are building or acquiring purpose brands
- They are aspiring to be a force for good
- They are setting ambitious sustainability targets, often beyond requirements of regulators

... Creating a new reliance on suppliers to help them reach their targets

**L'ORÉAL**

**“By 2030 95% of our ingredients will be biobased or from circular processes... by 2030 our strategic suppliers will reduce their scope 1 & 2 emissions by 50% vs 2016”**

**“To source 100% of our agricultural raw materials sustainably by 2020....we will achieve net zero emissions from our products by 2039”**



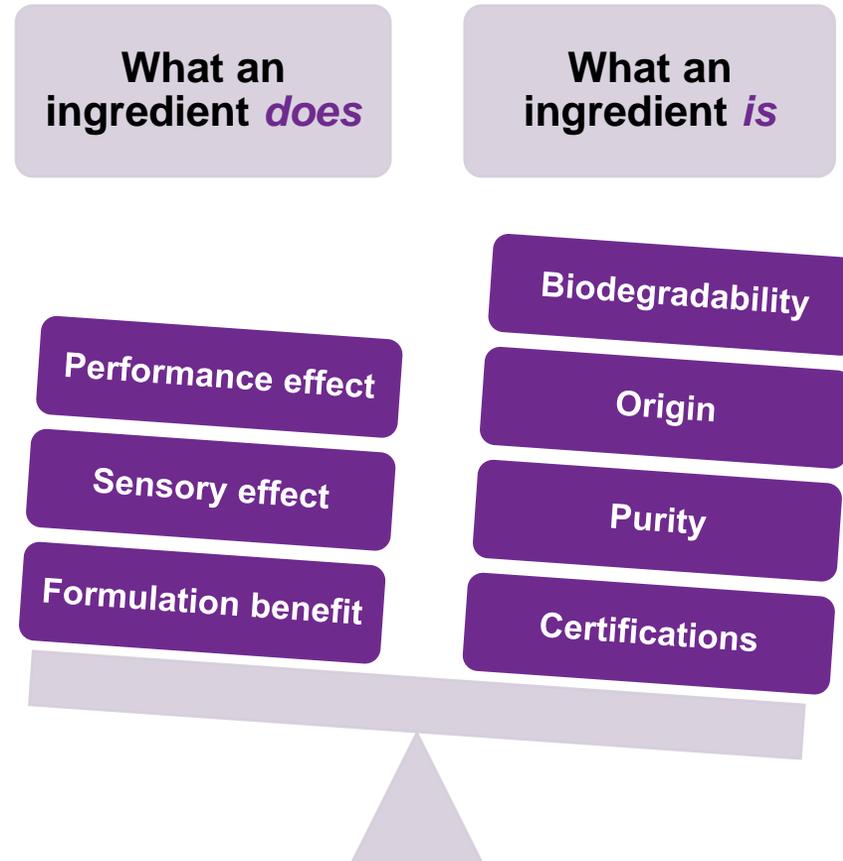
**natura & co**

**“We will achieve Net Zero carbon emissions by 2030 for our brands, reducing carbon emissions aligned with science-based targets, tracking emissions throughout our value chain and that of our suppliers”**

**“By 2030 all of our formulations will be 100% biodegradable.... focus on ingredients with a reduced environmental footprint”**



...and customers are seeking ingredient transparency...



...from sustainably positioned partners

# And Croda is responding



## ★ 45 INGREDIENTS

### Commercial Anti-aging Moisturiser

Ingredients: Aqua (Water/Eau), Glycerin, Butyrospermum parkii (Shea) butter, Cyclopentasiloxane, Steareth-21, Caprylic/capric triglyceride, C12-15 alkyl benzoate, Cyclohexasiloxane, Dimethicone, Steareth-2, Glyceryl stearate, Cetearyl alcohol, Polyacrylamide, Butylene glycol, Alcohol denat., C13-14 isoparaffin, Phenoxyethanol, Dimethiconol, Caprylyl glycol, Ascorbyl glucoside, Laureth-7, Parfum (Fragrance), Propylene glycol, Sodium benzoate, Tocopheryl acetate, Sodium hyaluronate, Pentylene glycol, Hibiscus abelmoschus extract, Ethylhexylglycerin, Retinyl palmitate, Phyllanthus emblica fruit extract, Hydrolyzed rice protein, Tetrasodium EDTA, Sorbitan laurate, Panax ginseng root extract, Carbomer, Dipropylene glycol, Dimethylmethoxy chromanol, Xanthan gum, Polysorbate 20, Hydroxyethylcellulose, Acetyl dipeptide-1 cetyl ester, Morus alba leaf extract, Tocopherol, Palmitoyl tripeptide-1, Palmitoyl tetrapeptide-7.



## ★ 14 INGREDIENTS

### Croda Age Defence Sleep Cream

| Ingredients                                      | % w/w |
|--|-------|
| Water  | 65.50 |
| Glycerin   | 3.00  |
| Sodium Benzoate                                  | 0.50  |
| Crodamol IPIS (Isopropyl Isostearate)            | 7.50  |
| Crodamol GTCC (Caprylic/Capric Triglycerides)    | 7.50  |
| SP Crodacol S95 MBAL (Stearyl Alcohol)           | 5.00  |
| ECO Brij S2 MBAL (Steareth-2)                    | 2.50  |
| ECO Brij S721 (Steareth-21)                      | 2.50  |
| Shea Butter (Butyrospermum Parkii (Shea Butter)) | 2.50  |
| Matrixyl® 3000                                   | 3.00  |
| Sodium Lactate                                   | 0.50  |

### How To Incorporate Sustainability Into Your Indie Beauty Brand

- Define Sustainability
- Be Transparent
- Evaluate Your Circular Model
- Source with Respect
- Keep Up with the Trends
- Update Your Branding

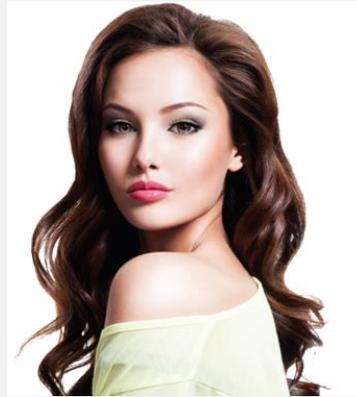
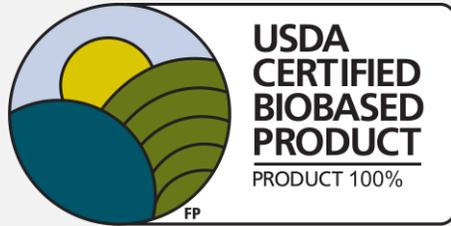
Smart Science to Improve Lives™

CRODA

# And Croda is responding



## Bio-based ECO surfactants



## Sustainable solar protection



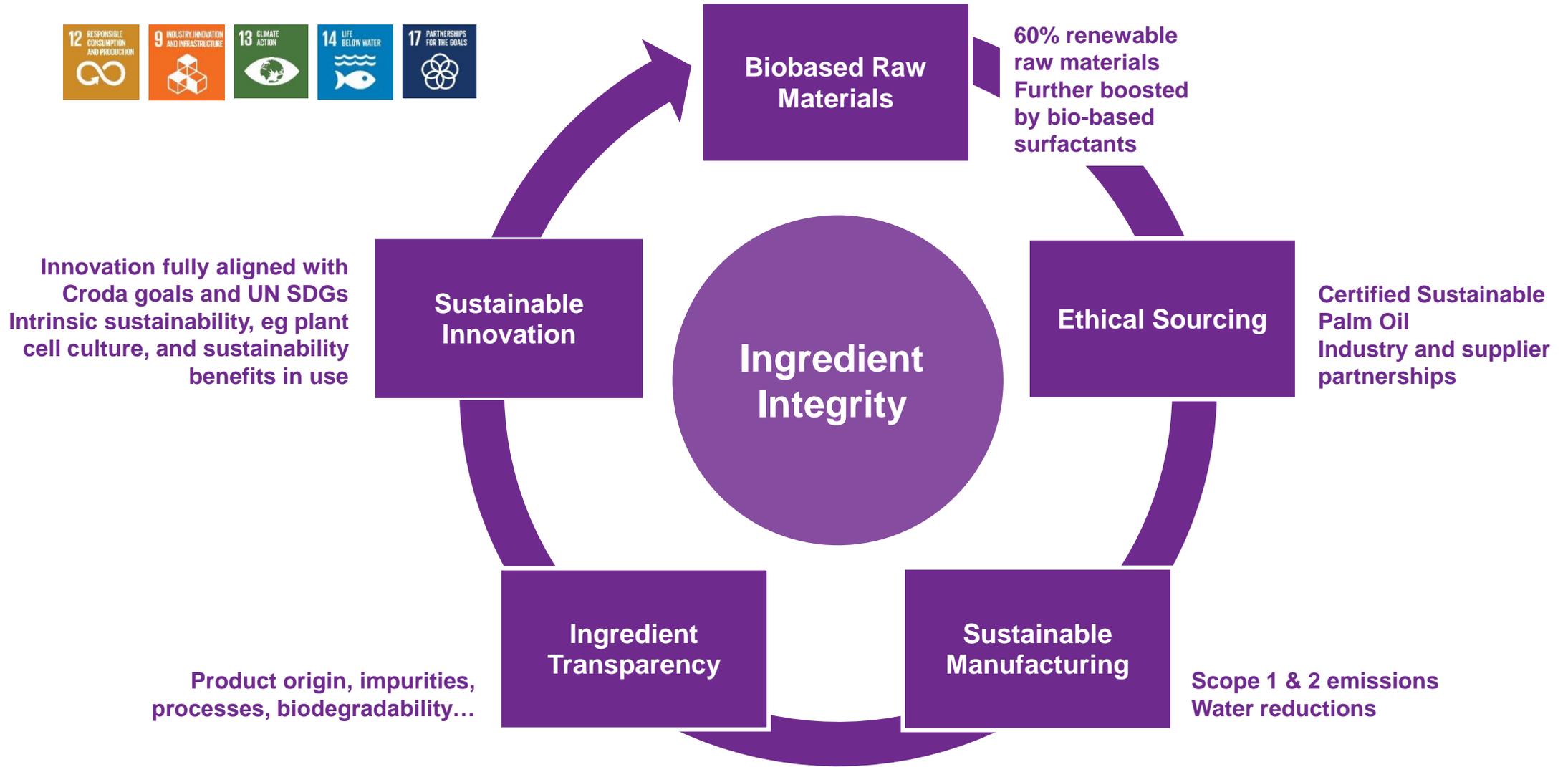
## Botanicals from ethical partnerships



## Plant Cell Culture actives



# Croda has created 5 key platforms to help customers succeed



# ...addressing all their stated needs



# L'ORÉAL

**Biobased Raw Materials**

**95%**  
By 2030, 95% of our ingredients in formula will be bio-based, derived from abundant minerals or from circular processes.

**Sustainable Innovation**

**-25%**  
By 2030, we will innovate to enable our consumers to reduce the CO<sub>2</sub> emissions resulting from the use of our products by 25% compared to 2016, on average and per finished product.

**Ingredient Integrity**

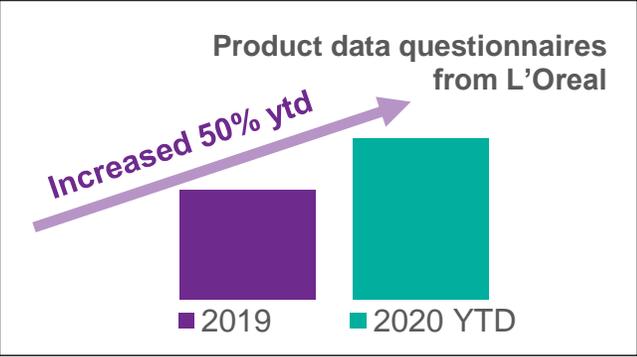
**Ethical Sourcing**

**100%**  
By 2030, 100% of the biobased ingredients for formulas and packaging materials will be traceable and will come from sustainable sources. None of them will be linked to deforestation.

**Ingredient Transparency**

**Sustainable Manufacturing**

**-50%**  
By 2030, our strategic suppliers will reduce their direct emissions (scopes 1 and 2), by 50% in absolute terms, compared to 2016.



# Case study – Sustainable mineral solar protection



## Customer benefits

- **Protection from skin cancer**
  - 3m cases of skin cancer pa
  - Due to sun exposure
  - Daily use of SPF 15+ sunscreen halves melanoma risk
- **Safe effective sunscreens**
  - Mineral sunscreen actives are the natural choice
  - Formally classified safe by regulators
  - Provide protection across a broader spectrum
  - UV, IR, pollution, blue light
- **Conscious consumerism**
  - Natural preference
  - Reef/coral safe

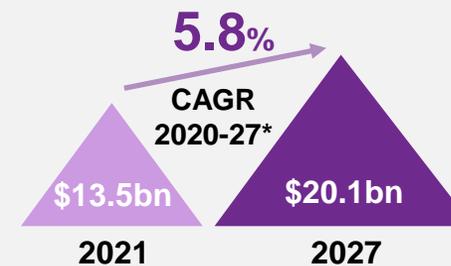


## Sustainability benefits

- **SDG 3 Good Health and Wellbeing**
  - “Reduce mortality from non-communicable diseases”
- **Our Commitment**
  - People Positive: By 2030, Croda will protect >60m people pa from the risk of sun-induced skin cancer
  - Climate Positive: reduce GHG emissions from our own activities and avoid carbon emissions in the supply chain



## Croda opportunity



**14.6%**  
sunscreens used **mineral sunscreens** only

**88.6%**  
increase over a 5-year period\*\*

- Builds on our heritage in mineral sunscreens
- Through innovation, partnerships & disruption



# Case study: Doubling the lifetime of clothes with Coltide



## Customer benefits

### – Market drivers

- Fabric softeners: ‘Care for Clothing’
- Beauty into fabric – eg sensory benefits
- Renewable ingredients

### – Customer launches based on fabric protection claims

### – Croda’s ingredient: Coltide Radiance™

- Protects individual fibres, reducing damage and fibrillation
- Restores shape and elasticity
- Restores softness

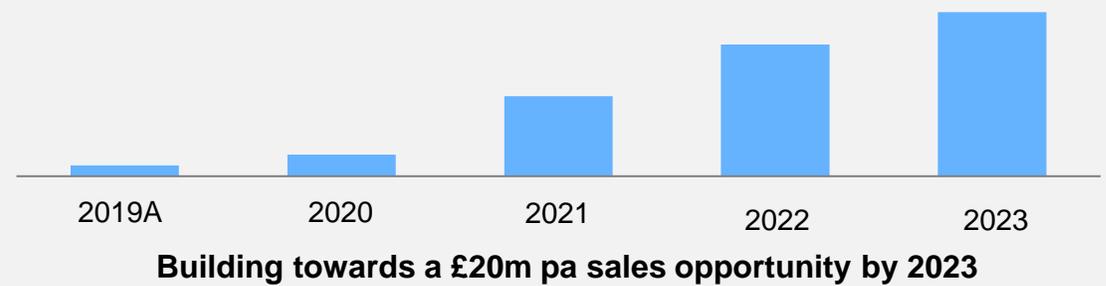


## Sustainability benefits – verified by Avieco (formerly Carbon Smart)

### • Coltide Radiance™ doubles lifetime of clothes

- 10% of clothes do not need to be replaced
- For every 1kg of Coltide Radiance™ used
  - 19.5kg clothes avoided manufacture
- For every 1 tonne of Coltide Radiance™ used
  - 478 tonnes carbon avoided = 102 cars off the road for a year
  - 150m litres water saved = drinking water for >200,000 people a year

## Croda opportunity: forecast Coltide Radiance™ sales



# Summary: Opportunities in consumer markets



- **Sustainability is transforming consumer markets:**

- New consumers are driving industry change
- Pushing our customers well beyond targets set by regulations
- Our customers have developed ambitious programmes

- **A significant revenue opportunity for Croda:**

- Croda has a head start on competition from its sustainable history
- Leading the way in sustainable innovation, delivered from a sustainable business model

# Opportunities in Life Sciences



Dr Nick Challoner – Sector President

# Trends are driven by regulatory change and customer need



## Regulatory landscape



## Customer demand



## Market disruption



## Key trends in Life Sciences



Growing population



Ageing population



Demand for transparency and trust



Demand for high performance, high quality alternatives

# Key trends impacting Life Sciences

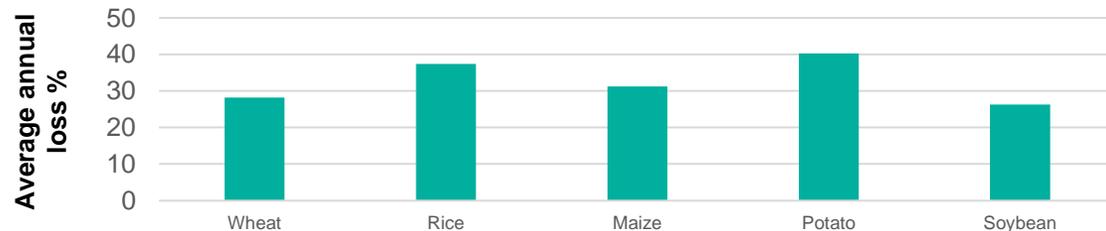


70% increase in food production required to feed 9bn population in 2050



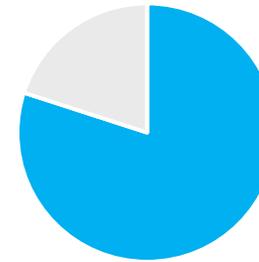
Crops need to be grown more efficiently to meet demand

Up to 40% of the world's harvest is lost to insects and diseases



Crops need targeted and sustainable disease control solutions

8 out of top 10 selling drugs are now biologics

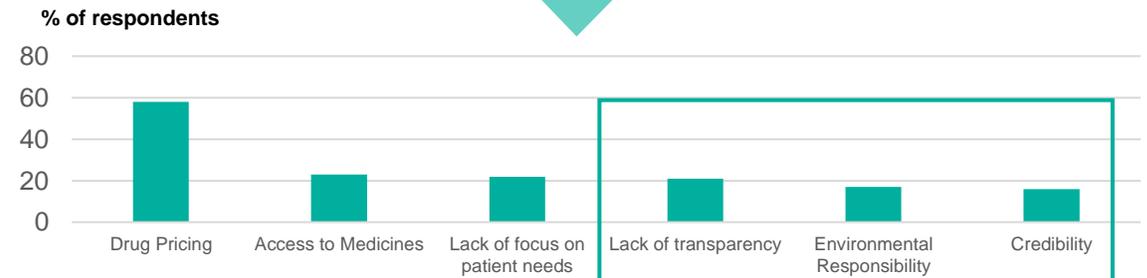


8/10 top selling drugs are biologics

Formulation challenges unmet by standard excipients

Pharma needs high performance, speciality excipients

Lack of transparency and environmental responsibility are increasing patient concerns



Pharma needs transparency to drive supply chain confidence

Sources: Food production – <https://twitter.com/Syngenta/status/486126256334069760>. Pharma concerns - <https://www.ipsos.com/ipsos-mori/en-uk/drug-pricing-controversies-are-here-stay-what-do-consumers-think>

# Sustainability – a driving force in Life Sciences



Saving more land than we use to maximise land productivity

Improving lives of more people via optimised health solutions



**Growing population**



**Ageing population**

Improving health and well-being by supporting clinical development and treatment of challenging diseases

Delivering supply chain traceability for consumers demanding greater choice and control

Reinforcing quality leadership in pharma



**Demand for transparency and trust**

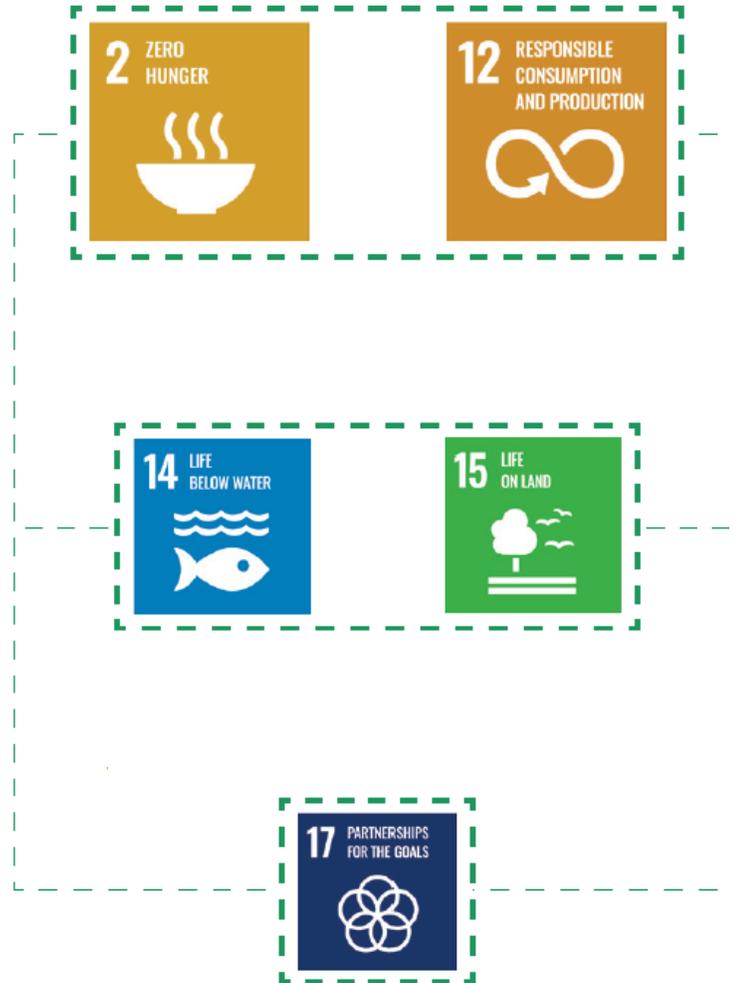


**Demand for high performance, high quality alternatives**

Commercialising sustainable alternatives, while not compromising performance or quality across the supply chain

Biodegradable solutions for Crop

# Opportunities in Crop Protection and Seed Enhancement



**Having a positive impact**  
On increased yields and efficiency

**Environmental consciousness**  
Through minimising required resources

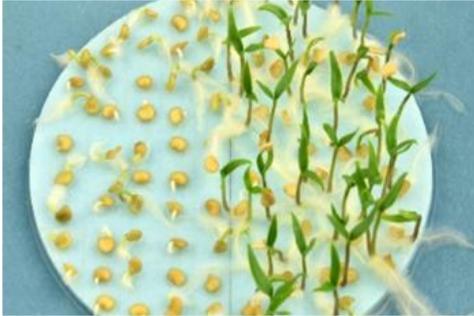
**In close collaboration**  
With our customers and other partners  
in the food chain



How The Good Growth Plan supports achievement of the UN SDGs  
Our contribution to the 2030 Agenda



# Sustainable innovation in Crop Care



Climate  
adaptation  
Seed priming



On target  
spraying  
Drift reduction  
adjuvants

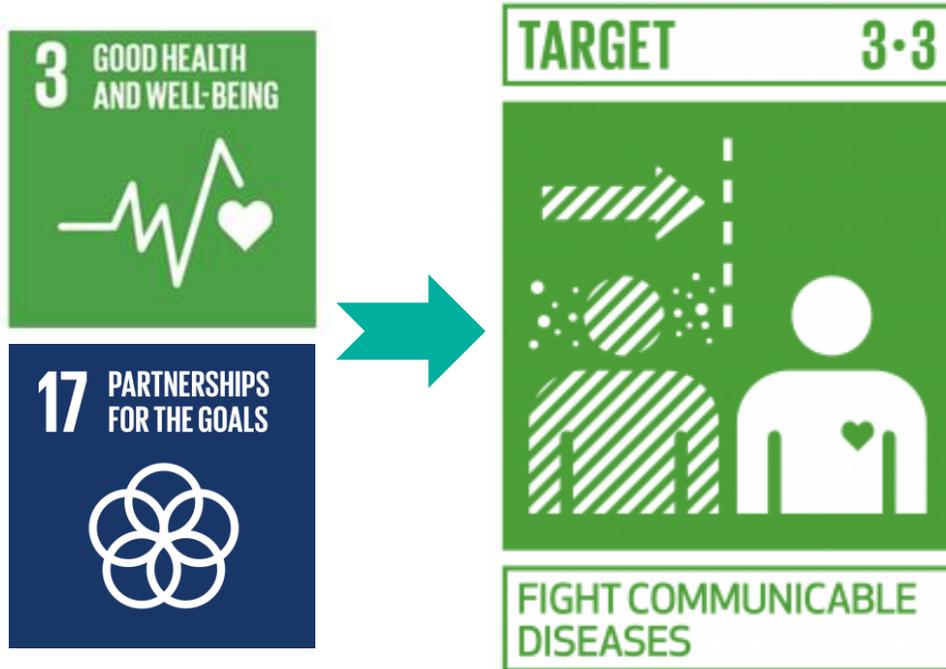


Responsible  
production  
ECO™  
range



Driving industry  
change  
Microplastic-  
free coatings

# Opportunities in Health Care



Contributing to the successful development and commercialisation of 25% of WHO-listed pipeline vaccines by 2030

## Partnering to target new diseases

The image shows a central syringe with a needle pointing upwards. Surrounding the syringe are several colorful, spiky virus-like particles in shades of red and orange. The background is a solid blue color. Text labels are placed around the syringe and viruses: 'Influenza' and 'Shingles' on the left; 'Covid-19' at the bottom left; 'Staphylococcus aureus' and 'Tuberculosis' on the right; and 'Malaria' at the bottom right.

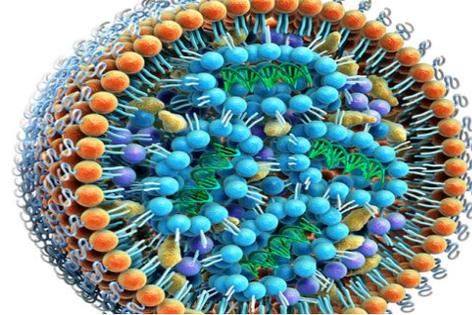
# Driving sustainable innovation in Health Care



Advanced technical performance  
Biodegradable sugar excipients



Extending drug shelf life  
\$2bn speciality excipient niche



Boosting pharmaceutical effectiveness  
Lipid nanoparticles



Tackling challenging pathogens  
\$0.5bn adjuvant niche

# Opportunities in Life Sciences summary

- **Sustainability is transforming consumer markets:**
  - New legislation
  - Changing customer demand
  - Market disruption
- **Driving a requirement for sustainable innovation**
- **Significant revenue opportunity**

# Summary



Steve Fouts – Chief Executive Officer

# Delivering customer opportunities from Sustainability

Regulatory landscape



Regulatory changes, customer demand and market disruption will drive significant opportunities to 2030 and beyond

**Ingredient Integrity™**

Our consumer markets need innovative sustainable products from bio-based, traceable ingredients, produced with less emissions and saving consumer carbon



Our Life Sciences sector will drive improved health and well-being, while increasing crop yields and saving land

**\$12tn**

The UN SDGs are forecast to generate \$12 trillion in global opportunities\*

\*Source: United Nations Development Programme

# Summary

- **Sustainability is core to:**

- Our Purpose: Smart Science to Improve Lives™
- Our Commitment: to be Climate, Land and People Positive
- Our portfolio: bringing more natural products to market

- **Strong foundations**

- Part of our heritage
- Investing in niche, growth markets
- With investment to support Croda's own Sustainability objectives

- **Strategy underpinned by:**

- UN SDGs
- Increasing regulation
- Customer and consumer trends

- **Significant revenue opportunity**

CRODA