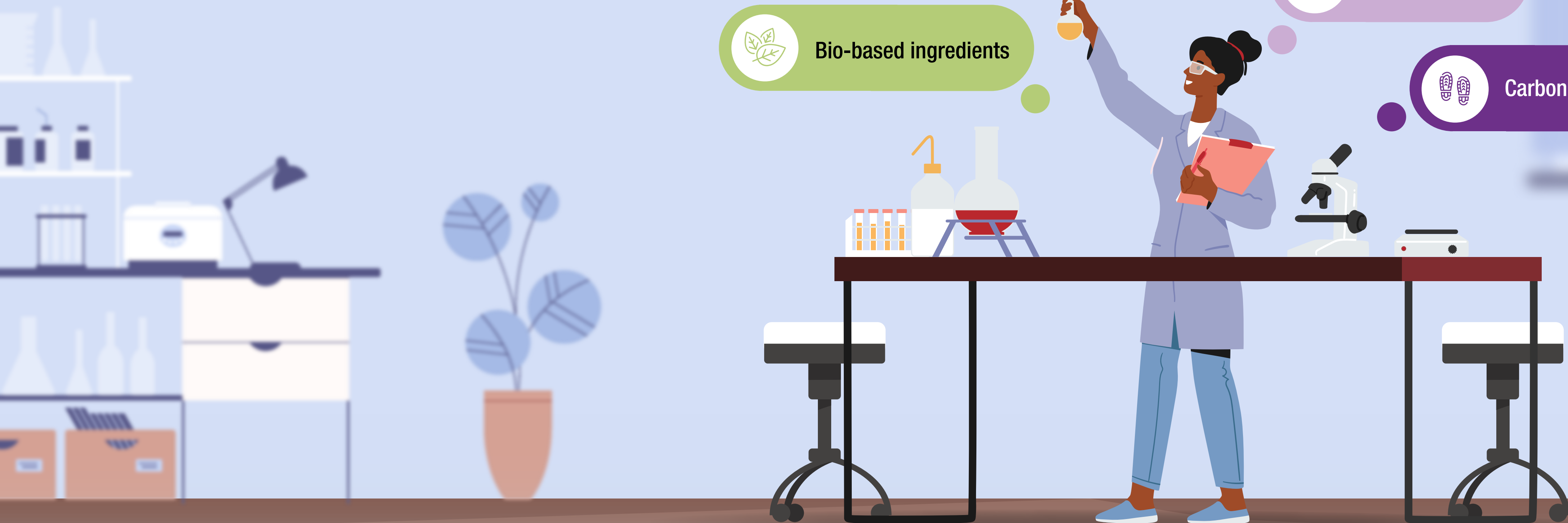
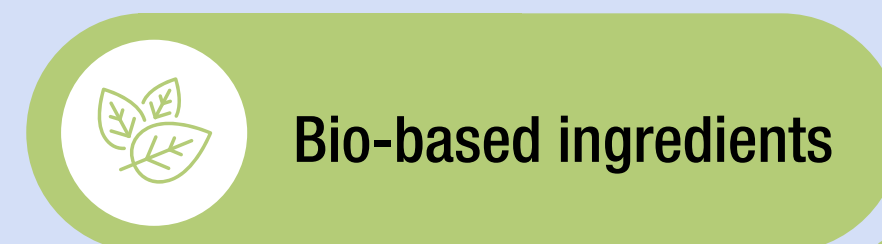
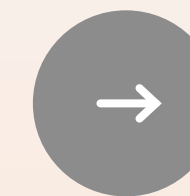
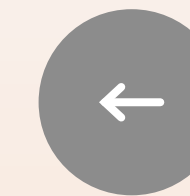


# How can the beauty industry help reduce carbon emissions?





# Use Certified Sustainable Palm Oil

Switching to palm oil certified by the Roundtable on Sustainable Palm Oil (RSPO) instead of alternative vegetable oils or non-certified palm oils will decrease deforestation, loss of biodiversity and greenhouse gas emissions.<sup>1,2</sup>

At Croda, 13 of our manufacturing sites worldwide are RSPO certified, and we are a founder member of Action for Sustainable Derivatives, an industry-led platform that tackles supply chain issues around palm oil and palm kernel oil derivatives.



Learn more about [RSPO](#) and browse our [RSPO certified products](#).

#### Sources:

1. <https://www.wwf.org.uk/updates/8-things-know-about-palm-oil>

2. <https://lca-net.com/publications/show/comparative-life-cycle-assessment-of-rspo-certified-and-non-certified-palm-oil/>

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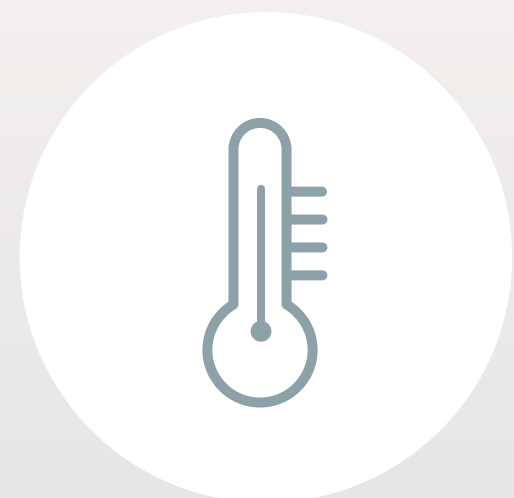
# Formulate using bio-based ingredients

Bio-based products are derived from biomass, and serve as alternatives to conventional petroleum-derived products. For example, using biomass instead of naphtha or natural gas in the production of surfactants allows us to decrease our dependence on fossil fuels.

Croda's ECO Range are 100% renewable, 100% bio-based surfactants made using ethylene oxide derived from bio-ethanol. Performance is identical to petro-based options and as they are also manufactured with renewable energy, their carbon footprint is much reduced.



Learn more about our [ECO Range products](#).



# Manufacture using cold process

Reaching and maintaining high manufacturing temperatures for numerous, large batches of products requires a lot of energy, which is often generated from fossil fuels. A formulation that can be made using a cold process does not require the use of heat and is therefore an effective way to help reduce carbon emissions.

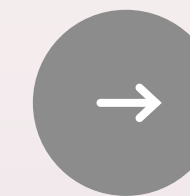
Croda aims to develop cold process formulations and create ingredients that require lower heating temperatures. We offer a number of liquid, powder and semi-solid ingredients that make it possible to formulate with minimal heat or no heat.



Browse our [cold process formulations](#).







# Consider different product formats

Bars, concentrates and powders typically use much less water during manufacture than creams, lotions and liquids; and the consumer typically uses a smaller quantity of these product types. Packaging can often be minimised. These factors also result in more effective transportation of goods and so lower associated emissions.

We have a variety of ingredients and formulations at Croda that are suitable for water conscious formats.



Check out our [water conscious formulations](#).





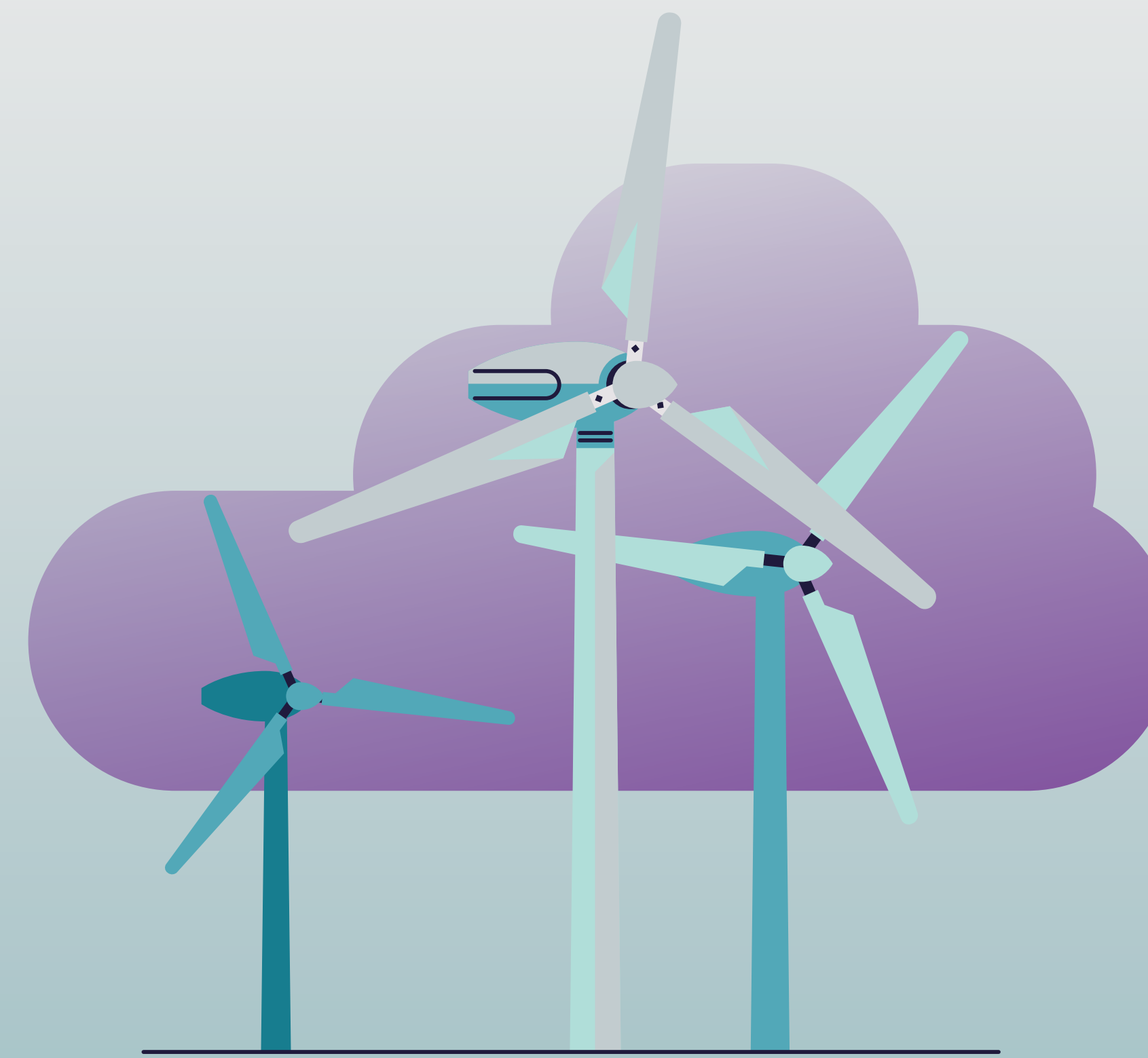
# Switch to renewable energy

The manufacture of products often requires large amounts of energy. By switching from fossil fuels (e.g. coal, natural gas) to renewable energy (e.g. solar or wind power) the associated carbon emissions can be drastically reduced.

A great example of a manufacturing site already contributing to this objective is Atlas Point (USA). The site's electricity is generated by renewable energy from on-site solar panels, purchased wind power and local landfill gas. The landfill gas fuels combined heat and power units to create electricity and steam for use on-site. The use of this landfill gas avoids the release of methane into the atmosphere, mitigating its environmental impact; methane has a global warming potential 25 times greater than carbon dioxide, when measured over 100 years.<sup>3</sup>

**Sources:**

3. <https://www.epa.gov/gmi/importance-methane>





# Understand and reduce your carbon footprint

By understanding your baseline carbon footprint, you will be able to work more effectively to reduce your impact.

Croda has performed comprehensive assessments of our overall carbon footprint to understand where we can minimise our impact. By 2030, we will reduce our average product carbon footprint by 35% through reductions in our Scope 1, 2 and 3 emissions.





# To learn more about how the beauty industry can help reduce carbon emissions:



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Read our [blog](#)

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