

Sustainability of cosmetic products: a focus on packaging

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Cosmetic industry and sustainability

- General state-of-affairs
- Sustainable approaches – successes and pitfalls
- Trends

A focus on packaging

- The problem
- Possible solutions
- Future outlook



If the global
population
reaches
9.6 billion
by 2050,
the equivalent
of almost
three
planets
will be
required to
sustain current
lifestyles

We have **7 years of 'carbon budget'** until we hit 1.5°C increase of temperature from pre-industrial levels, if we continue our current emissions.



*Political
reality:*
prioritising
the economy

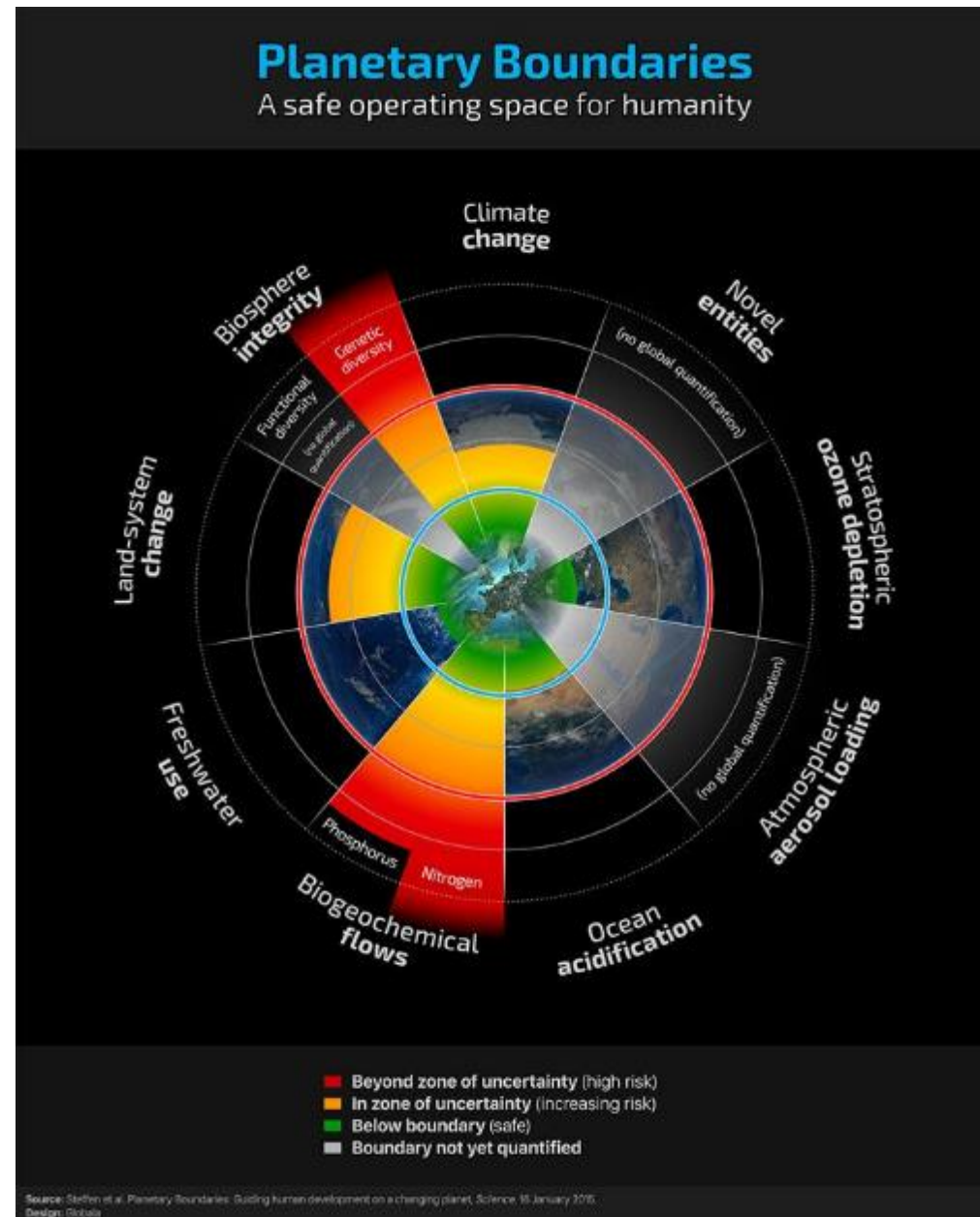
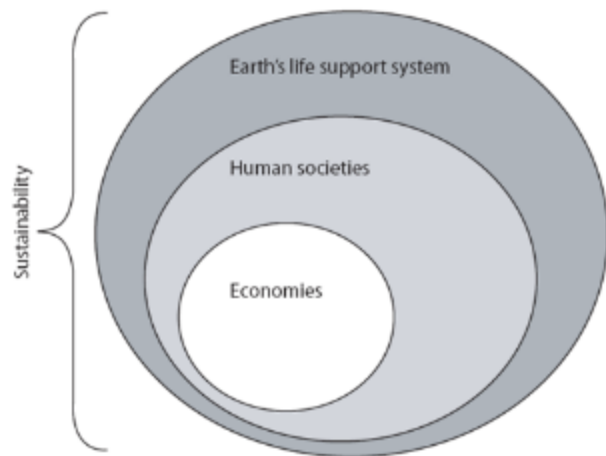
*Material
reality:*
nesting
economy in
society and
environment

https://www.mdpi.com/sustainability/sustainability-11-03354/article_deploy/html/images/sustainability-11-03354-g001-550.jpg

Planetary boundaries concept

*Johan Rockström et al., 2009
Stockholm Resilience Centre*

*Out of 9 planetary
boundaries, we have broken
through 5*



What is being done?

HAPPINESS SDG PYRAMID

SUSTAINABLE
DEVELOPMENT
GOALS



SPIRITUAL

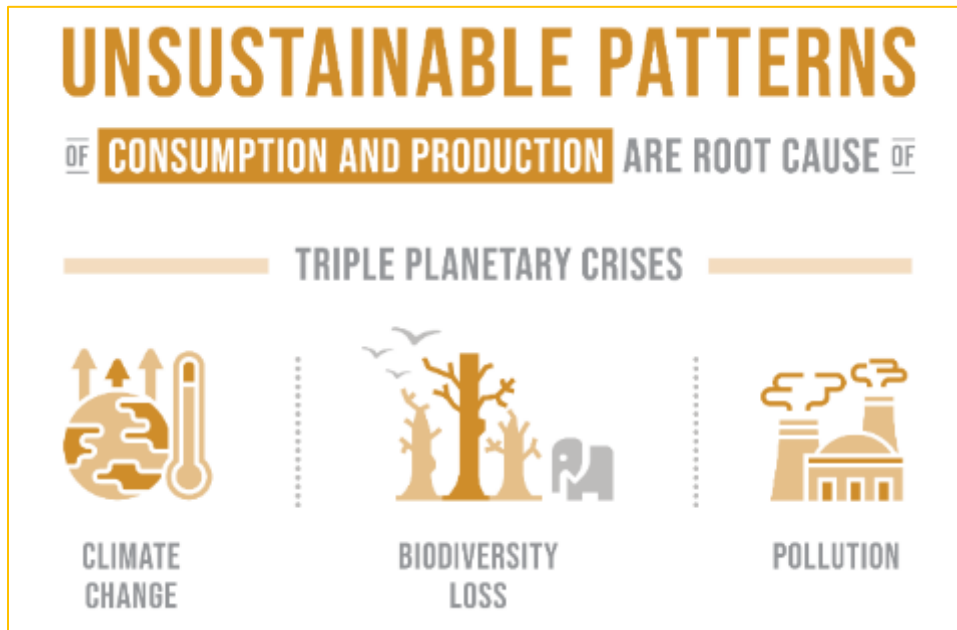


ECOLOGICAL



PEOPLE

SUSTAINABLE DEVELOPMENT GOALS



Responsible consumption and production (SCP) is a holistic approach and is about systemic change. Main objectives:

1. Decoupling environmental degradation from economic growth
2. Applying life cycle thinking
3. Sizing opportunities for developing countries and their “leapfrogging”

<https://unric.org/en/sdg-12/>

However, consumers are ambiguous: they support the goal in principle, but are unwilling to give up any element of their life styles



Established in 2009

To encourage sustainability in the beauty industry by bringing together key stake-holders

<http://www.sustainablecosmeticssummit.com/Europe/>

Six top sustainability challenges facing Cosmetic industry

1. Transparency and traceability in supply chains
2. Green formulations (the use of ingredients from renewable sources)
3. Sustainable packaging
4. Climate change (pressure to reduce greenhouse gasses emission)
5. Water management
6. Social impacts

Cosmetics Europe

Case studies
on
environmental
sustainability
in the
cosmetics
industry



Henkel:

Circular solutions for
sustainable packaging



L'Oréal:

Sustainable transformation
programme to respect
planetary boundaries with
the support of consumers



Natura &Co

Targeting full circularity
of packaging



P&G Beauty:

Developing sustainable
packaging solutions

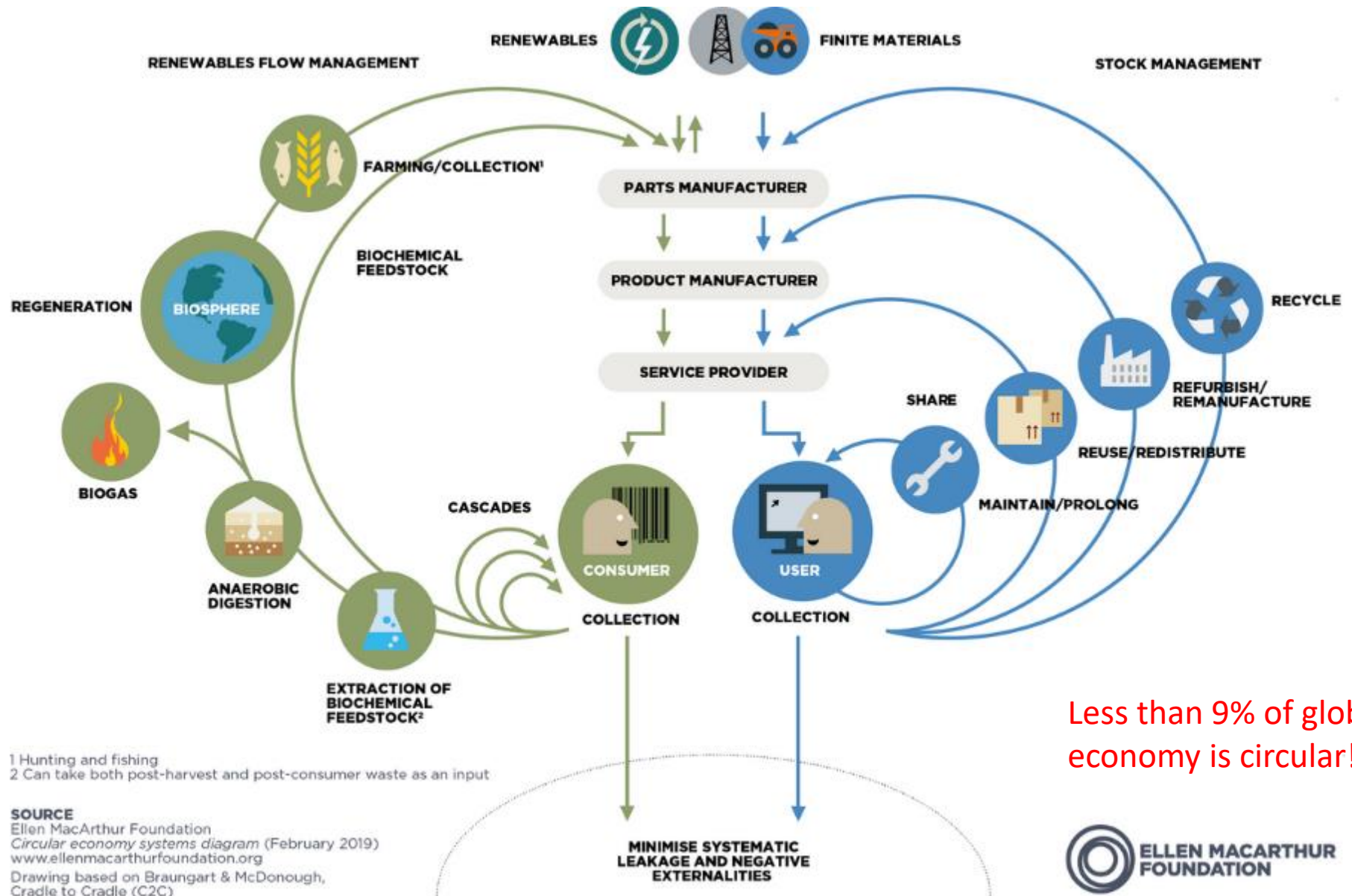


Unilever:

Turning the tide
against plastic waste

<https://cosmeticseurope.eu/green-action-case-studies-environmental-sustainability-cosmetics-industry>

The 'butterfly diagram' of circular economy



- **‘Greenwashing’**, which erodes consumers’ trust
Examples: unsupported or vague statements on packs, irrelevant logos, misinformation, promotion of dubious statements as facts (e.g., *natural ingredients are safe and ‘ecologically friendly’*)
- Mistakes due to **rushed decisions in offsetting** carbon emissions
- Putting too much pressure on suppliers (**‘outsourcing sustainability’**)
- Fragmented approach, not presenting the whole picture
- The lack of transparency; **no common criteria**

The cosmetic industry has self-organised:

EcoBeautyScore consortium

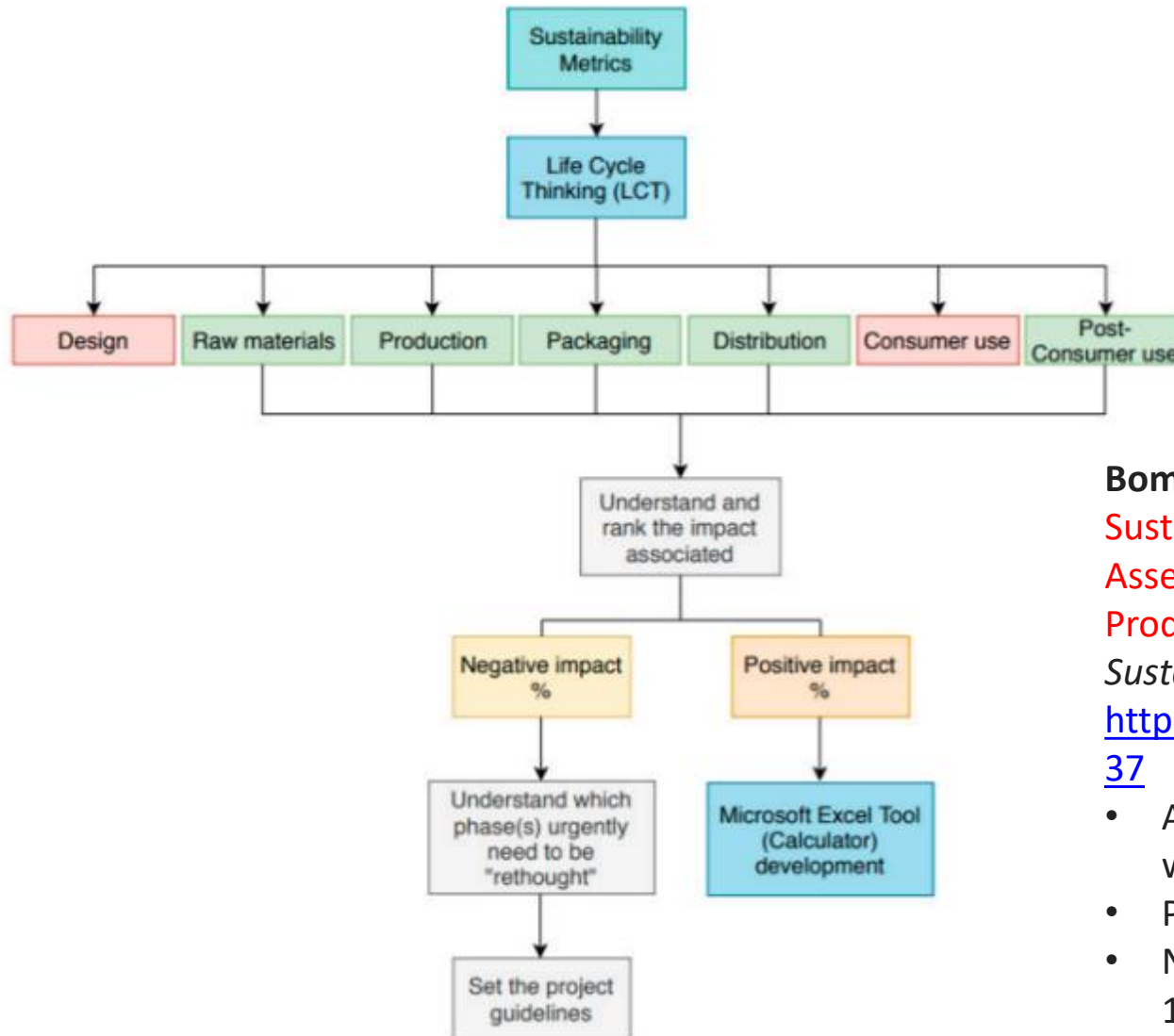
More than 60 companies, plus organisations such as Cosmetics Europe, CTPA, Cosmetic Valley

Objectives:

1. A common system for **environmental impact assessment** of cosmetic products.
2. A common **scoring mechanism & harmonized consumer-facing layout.**

<https://www.ecobeautyscore.com/>





Bom, S.; Ribeiro, H.M.; Marto, J.
Sustainability Calculator: A Tool to Assess Sustainability in Cosmetic Products.

Sustainability **2020**, *12*, 1437.

<https://doi.org/10.3390/su12041437>

- A relatively simple excel tool was developed
- Proof of concept completed
- No material or packaging is 100% sustainable
- Useful tool for making decisions, especially in the product development phase

A focus on packaging

- The problem
- Possible solutions
- Future outlook



- Cosmetic industry produces more 120 billion units of packaging globally every year
- 95% of those are thrown away after just one use
- Plastic products take up to 400 years to decompose
- Glass takes even longer than plastic
- The plastics industry contribution to climate change is almost larger than coal powerstations
- Only two plastics are globally recycled: **PET** and **HDPE**

Sustainable packaging

Packaging that optimises performance and cost, while also taking into account materials, transportation and energy use, and the entire product life cycle.

Alexandra Uribe (IFSCC webinar, 2022)

Various requirements

- Recycled
- Recyclable
- Reusable (refill, repurpose, upcycle)
- Biodegradable
- Plant-based

No material is ideal – it depends on many factors (use, durability, end-of-life, global footprint)

- Formulation trends
 - waterless formulations
 - multi-purpose sticks
- Packaging materials
 - Recycled content
 - Zero plastic
 - Zero packaging
- Monomaterial packaging
- End-of-life systems
 - Refilable
 - 100% recyclable; disassemblable
 - Plastic decomposition technology
- Stricter retailers' demands



7 Rs of sustainable packaging

Refuse Plastic

Replace

Reduce your Carbon Footprint

Reuse

Re-purpose

Recycle

Return to Nature



<https://s3.amazonaws.com/zintree-uploads/images%2F1568120342069-PackScore-Main-Page2.jpg>

Various labels used by the industry



100% RECYCLABLE



Widely
Recycled



Examples of sustainable packaging



Recyclable carton



Mono-plastic,
sugare cane,
recycled plastic



Fully recyclable pump,
sustainable pouch



Paperboard packaging range



Paperboard
tube and bio-
degradable cap

What Are the **Downsides** of Using Eco-Friendly Cosmetic Packaging?



<https://www.enkoproducts.com/wp-content/uploads/2020/12/What-Are-the-Downsides-of-Using-Eco-Friendly-Cosmetic-Packaging-768x432.png>

PACT Collective programme was launched on Earth Day 2021, and it now has more than 100 members including about 70 brands, non-profits, retailers and media outlets.

Aim: To end packaging waste!

Principles:

- Make products with customizable, modular, reusable and refillable packages
- Packages constructed using post-consumer recycled (PCR) materials
- Each element sold separately
- Take-back program for the entire cosmetic industry

<https://www.pactcollective.org/>



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CARBON TRANSPARENCY & COST ACCURACY

HOME



CO2e Calculator



Carbon Labelling

CO2e CALCULATOR

A first to market, low-cost solution, to calculate the CO2e for the packaging industry

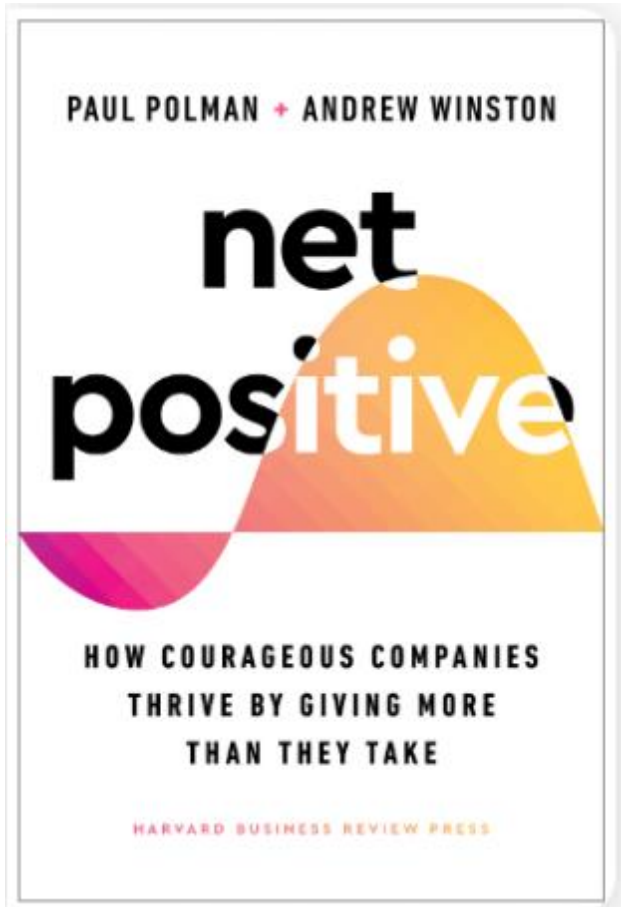
- ✓ Provide a carbon footprint measurement at a SKU (design) level.
- ✓ A bottom up mathematical model, sourcing data from world leading CO2e databases.
- ✓ Calculate a single design reference to many thousands in one process.

<https://www.benchmark-consulting.co.uk/>



Granularity, accuracy and transparency





In this book (2021), former Unilever CEO **Paul Polman** and sustainable-business guru **Andrew Winston** provide a model for building companies that contribute more to the world than they take—**net positive companies**.

**BUY LESS,
CHOOSE WELL,
MAKE IT LAST.**

VIVIENNE
WESTWOOD