

Unilever Clean Future

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Presentation Outline

1. Introduction to Unilever and the drivers for sustainable products
2. Unilever Clean Future
3. Clean Future in action



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Introduction to Unilever



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“MAKE CLEANLINESS
COMMONPLACE”

UNILEVER IS A GLOBAL €50 BN+ COMPANY

EUROPE

€11.4 BILLION TURNOVER

22% OF GROUP TURNOVER

ASIA/AMET/RUB

€24.1 BILLION TURNOVER

46% OF GROUP TURNOVER

THE AMERICAS

€16.5 BILLION TURNOVER

32% OF GROUP TURNOVER



2019 TURNOVER = €52.0 BN

WE MAKE MANY OF THE WORLD'S FAVOURITE BRANDS

AXE *Dove*



WALL'S


HELLMANN'S
EST. 1913


SINCE 1838
Knorr


M
MAGNUM®


OMO


Rexona


sunsilk
CO-CREATIONS


Surf **LUX**®



**TODAY, THE WORLD FACES
NEW AND BIGGER CHALLENGES**

Global action on climate change & a sustainable future for the planet



Paris agreement goals

- Save & increase forest area to capture greenhouse gases from the atmosphere
- Hold average increase in global temperature to 2°C
- Limit temperature increase to 1.5°C
- Make finance consistent and aligned with Agreement goals
- Increase ability to adapt to climate change

TREE AID www.treeaid.org



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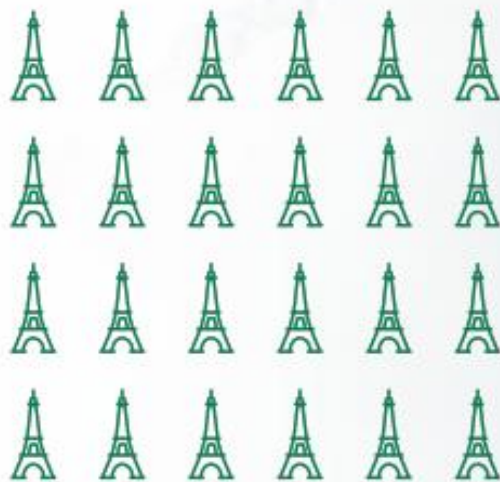
We are a cleaning industry, yet we could be cleaner

160MT GHG emissions



~Netherlands

1.5 mega tonnes of waste leaked into the environment



= 200 Eiffel Towers

~60bn m3 water used



= 2X EU consumption

Industry footprint



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Our impact on this planet is finally sinking in...



...and how we live today can't go on without the world imploding



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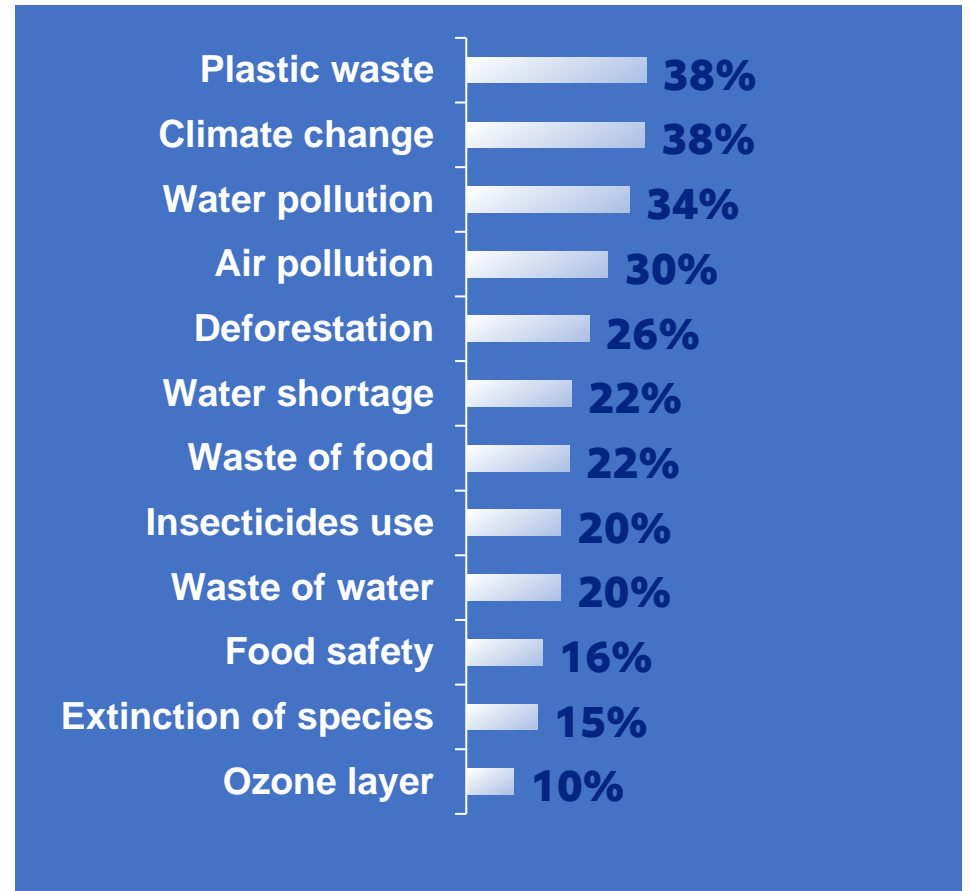
High environmental concerns everywhere



Climate Change is as serious as Covid-19

Source: Ipsos Earth Day 2020

Biggest global environmental concerns



Source: Europanel, Kantar, GfK - WhoCares? WhoDoes? 2020



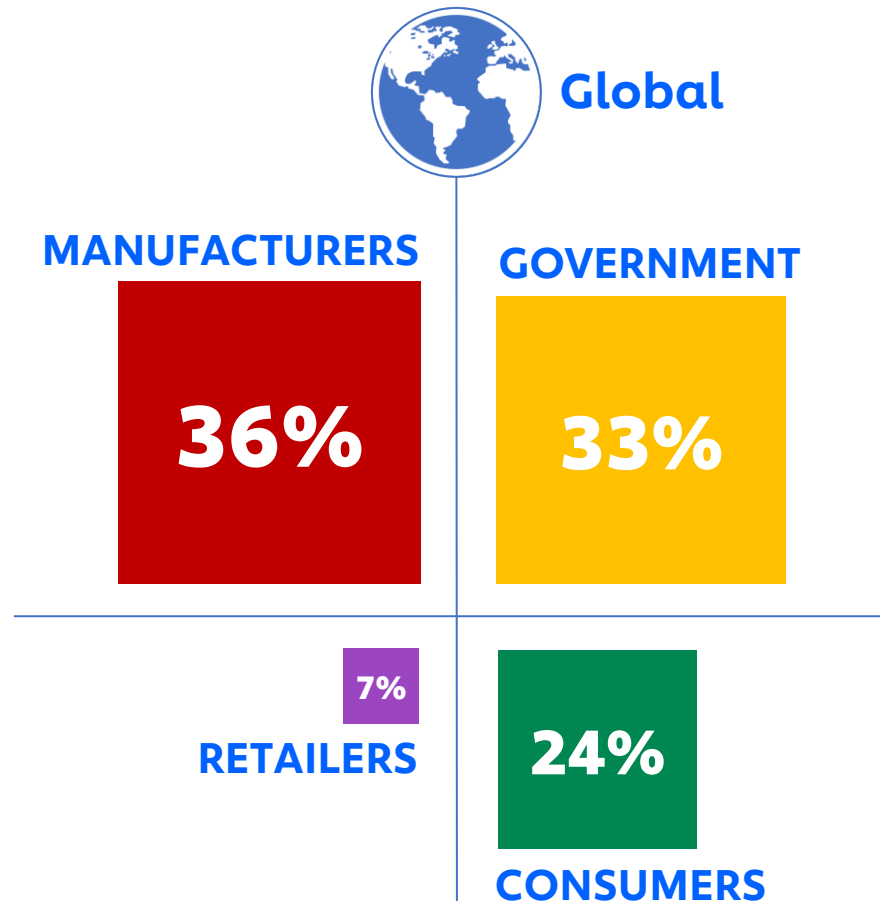
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Consumers say it's our responsibility to drive change



Source: Europanel, Kantar, GfK - WhoCares? WhoDoes? 2020
Who can make the biggest difference to control and limit environmental damage?



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It has never been so
important to think about

**sustainability
as a driver of
future growth**

It has never been so
important to make

**sustainability
the frictionless
choice**

There is still an
opportunity to

**be the company
to really own
the Clean Future
space**



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For more details, see Chet's 1HC film [HERE](#)

Estação de Reciclagem • Pão de Açúcar

MAKE SUSTAINABLE LIVING COMMONPLACE



OUR CLEAN FUTURE VISION

Clean Future Vision



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What is Clean Future?

**Reinventing age-old chemistry
to innovate superior cleaning
and hygiene products
that are kinder to the planet,
at affordable prices:**



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Supported by public commitments to catalyze industry-wide change



Halve GHG footprint of our products across the lifecycle by 2030
Net zero emissions from all our products from sourcing to point of sale by 2039



100% recyclable, re-usable or compostable plastic packaging by 2025
50%¹ recycled plastic by 2025
50% virgin plastic reduction by 2025



Replace fossil fuel-derived carbon with **100% renewable** or **recycled** carbon in our cleaning and laundry product formulations by 2030 (via Carbon Rainbow)
100% deforestation-free supply chain in palm oil by 2023



Committed to **ending animal testing** and work for regulatory change to increase the acceptance of non-animal approaches



100% biodegradable ingredients by 2030



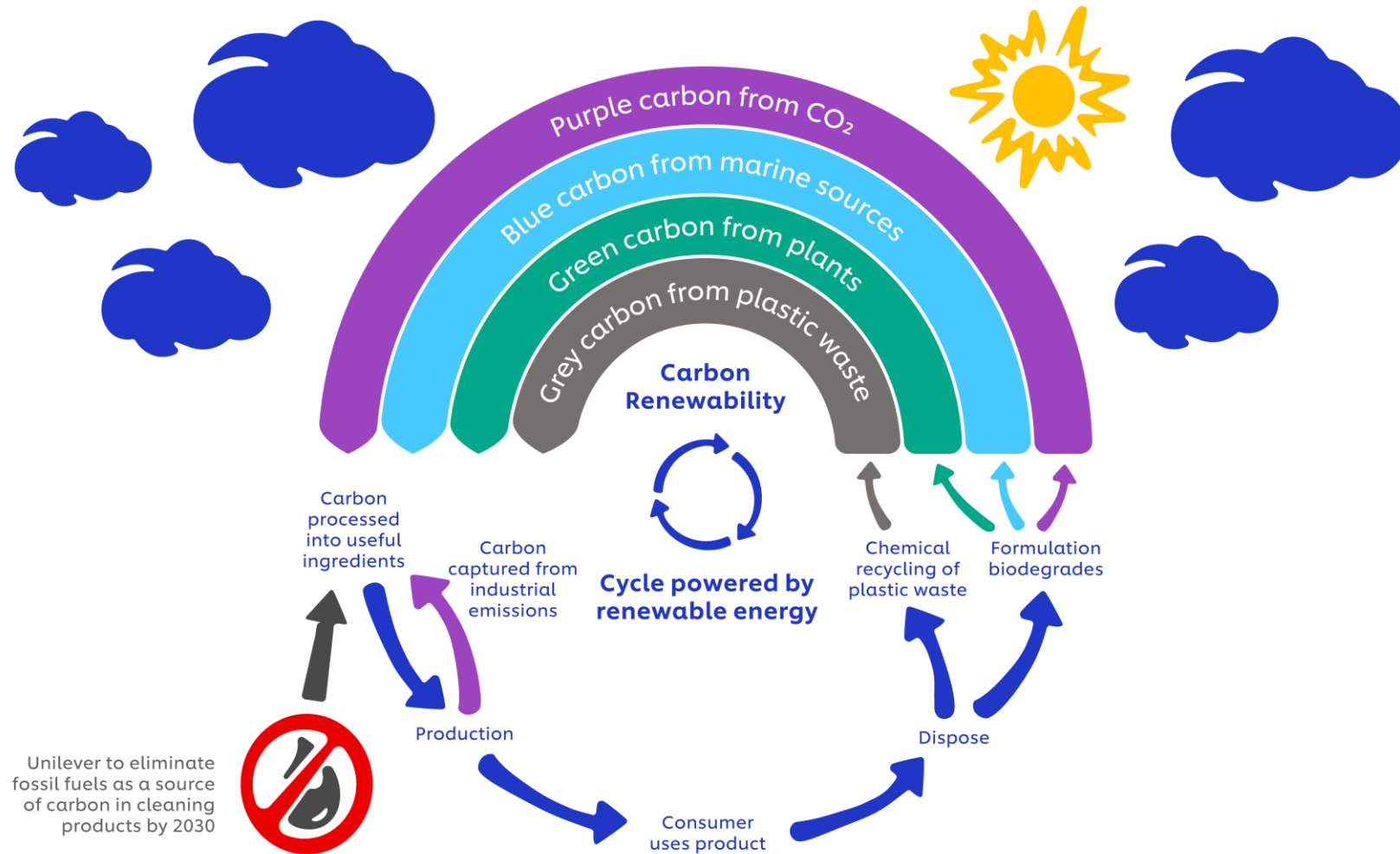
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¹122kT for HC. Total Unilever commitment 25% PCR by 2025

The Carbon Rainbow: Our pathway to replace black carbon (from petrochemicals) with renewable or circular carbon



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Applications of Biotechnology in Home Care Products



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Detergent Enzymes – perfect Clean Future ingredients

Laundry detergents is the largest global application of industrial enzymes

Enzymes have been used in laundry detergents since the 1960s

- Detergent enzymes (e.g. amylases, proteases, lipases) are used to remove starchy, proteinaceous and fatty stains
- They do this more effectively than surfactants at lower concentrations and temperatures:
 - Carbon efficiency & concentration
 - Energy saving (transport & water heating)
- Detergent enzymes such as cellulases can be used to improve the appearance of garments by removing fuzz and pills from cotton
- Detergent enzymes are the subject of continual innovation through protein engineering e.g for:
 - Better stain removal
 - More stable in the detergent environment
 - Reduced production costs



“Bio” or “biological” indicates that the detergent contains enzymes



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Biotech to convert industrial emissions into surfactants

Unilever has partnered with LanzaTech and India Glycols to produce a surfactant made from industrial carbon emissions instead of from fossil-fuels.

The breakthrough process for surfactant production involves two stages:

- 1. Capture:** LanzaTech, the world leader in CarbonSmart™ products, **uses biotechnology to capture waste industrial emissions** at its Beijing Shougang LanzaTech plant in China and converts these emissions to ethanol.
- 2. Conversion:** India Glycols Ltd converts the ethanol into ethylene oxide, a key feedstock to make surfactants at their site in India.



LanzaTech 


India Glycols Limited

<https://www.lanzatech.com/2021/04/21/unilever-lanzatech-and-india-glycols-ltd-launch-worlds-first-laundry-capsule-in-market-made-from-industrial-carbon-emissions/>



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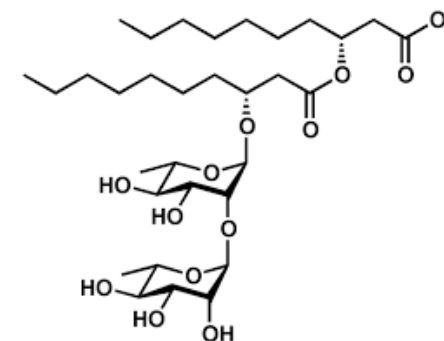
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Rhamnolipids

Natural biosurfactants with production enhanced through synthetic biology and biotechnology

- First launched in Unilever hand dish wash in Chile in 2019
- January 2022: *“Evonik is investing a three-digit million-euro sum in the construction of a new production plant for bio-based and fully biodegradable rhamnolipids”*



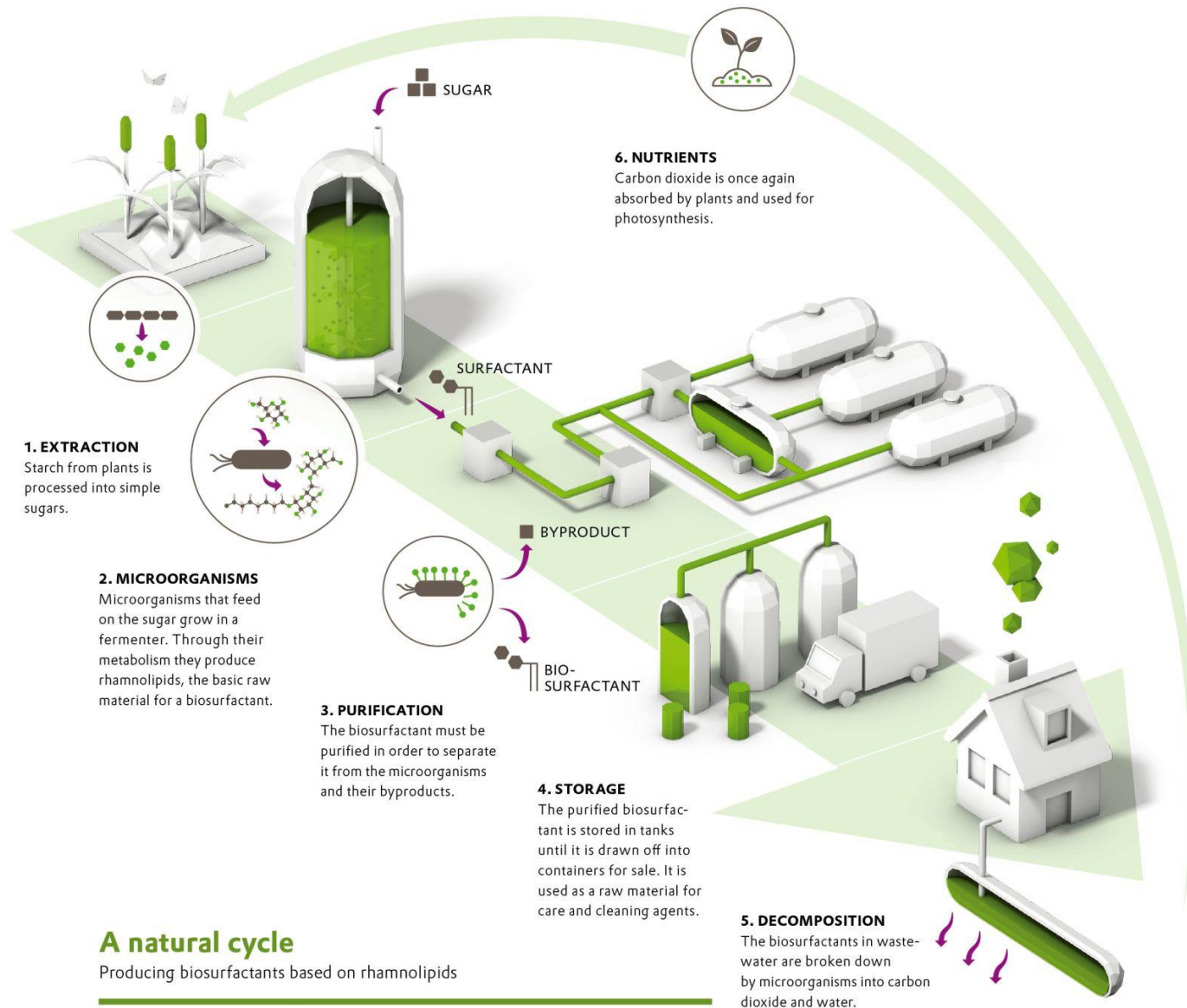
<https://www.unilever.com/news/press-and-media/press-releases/2019/unilever-and-evonik-partner-to-launch-green-cleaning-ingredient/>
<https://www.unilever.co.uk/news/2022/building-a-clean-green-foamproduction-machine/>



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A natural cycle

Producing biosurfactants based on rhamnolipids



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Conclusions

1. Industry must respond to their customer and end user needs to deliver profit to shareholders
2. Industry has a huge role to play in be a force for change for the health of the planet
3. Sustainability can also be good for business – its what our consumers want
4. Biobased and renewable materials have a big role to play in delivering the Clean Future products of the future



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