



Turning the Tide on Plastic Pollution

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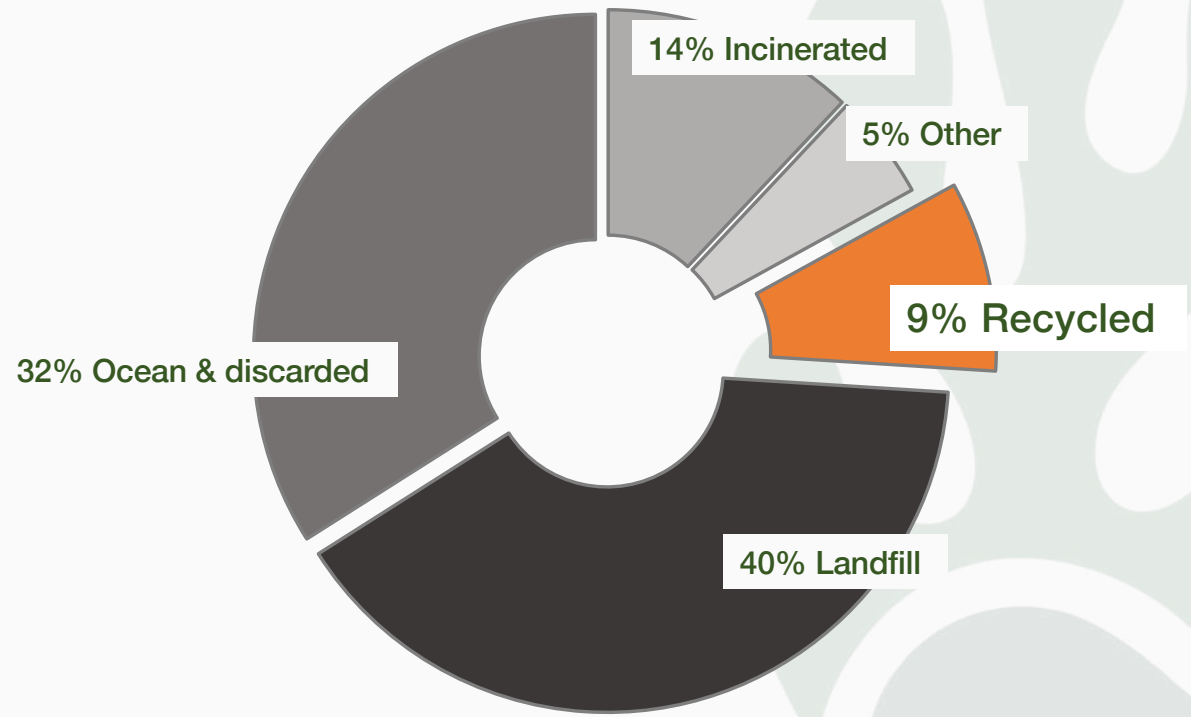
Fossil fuel plastics create a huge carbon problem ...

- Today, 8% of world's oil used to make fossil fuel plastics
 - By 2050 that will be 20%
- Already plastics = **>4%** of global ghg emissions ...
 - ... **double** emissions of aviation



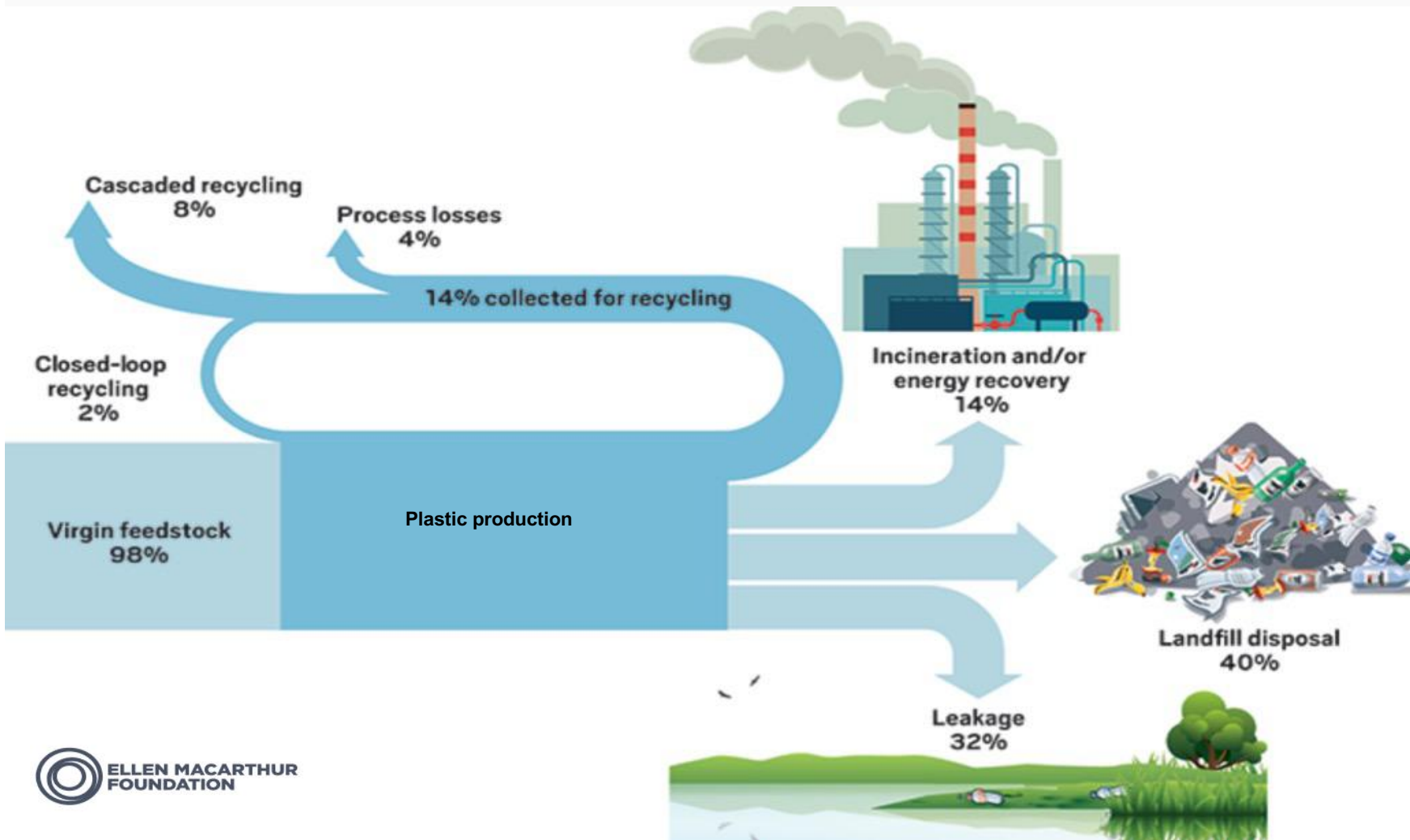


... and a huge plastic pollution problem



“By 2050 there will be more plastic than fish in the sea”

Recycling is only a small part of the answer ...





... but consumers already demanding change

Consumers are demanding packaging that doesn't harm the environment

82% of UK consumers are actively trying to reduce the amount of plastic they throw away.

YouGov[®]



So Kelpi starts with seaweed

- Making bio-materials from seaweed uses:
 - no fossil fuels
 - no land
 - no fresh water
 - no fertilizer
- Seaweed grows prolifically
 - Sequesters carbon dioxide
 - Deacidifies the ocean
 - Provides habitat for fish stocks to replenish



Renewable
feedstock



Home / industrial
compostable



Marine safe



Low-carbon



Packaging
recyclable



To create a truly sustainable bio-material



We then build on extracts from seaweed:

- Using the right chemistry, building in bonds seen in nature



to devise an entirely novel **coating for paper, card and fibre:**



Kelpi-coated paper & card is certified recyclable

- And more likely to be recycled
 - Paper & card packaging recycling rates = 70% (UK)
 - Plastic food containers recycling rates = 10% (UK)
 - Globally, only 9% of all plastic waste recycled
- It's marine-safe
- And compostable – home or industrial
 - In the right conditions in less than 56 days




A 'smart material' made from unique biopolymers

- 🌿 Kelpi has created a unique material ...
 - ... that in many cases matches the performance of fossil fuel plastic packaging
- With an industry-leading water barrier
 - Which is where Kelpi is winning time & again
- 🌿
 - And oxygen barrier
 - Acid
 - Grease
 - Enzymes (laundry liquids)
 - Surfactants

But it's the water barrier ...

 ... that sets Kelpi apart from our competitors

 In a high-performance, sustainable packaging material

 • using **no fossil fuel packaging**

Winning with the world's largest brands in:

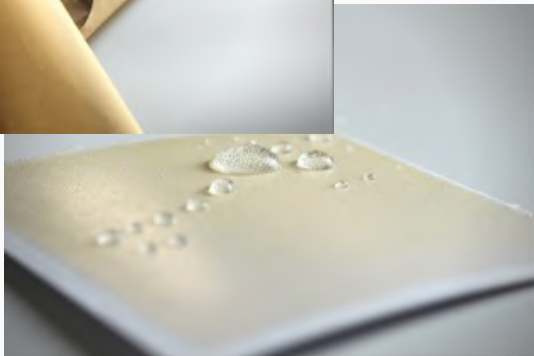
 • food & drink

• cosmetics & personal care



Working in collaborative innovation partnerships

- Kelpi has worked out how to
 - Keep shampoo and conditioner contained for the long term ...
 - ... but ready to flow freely
 - In paper- and card-packaging ...
 - ... optimised for humid environments (eg bathrooms, kitchens)
 - Keep dried food dry
 - Handle temperatures from boiling water to ind. freezers
 - Contain acidic or greasy foods, creams etc
 - Heat-sealable
- Now working in collaborative co-development projects
 - With clients in Fr, Esp, It, Fin, UK, Africa



Kelpi – a smart platform solution

- Skating to where the puck will be
 - Targeting where legislation will be in 2025
 - EU SUPD
 - FCM regulatory approval 2024
 - Works with current production machinery
 - Continually proving compatibility with evolving manufacturing lines
 - Proving the scale to meet demands of world's largest clients
 - Currently at TRL 7
- We're not a 'one-and-done'
 - 'smart platform' allows us to dial up or down on specific material features / capability
- Co-development enables bespoke solutions



Born in Bath; based in Bristol

World class scientists teamed with entrepreneurial experience



Neil Morris
CEO and co-founder



Prof Chris Chuck
CTO and co-founder



Megan Kelsall
People & Operations
Manager



Dr Georgios Gkotsis
Head of Product Development



Dr Ed Jones
Lead Engineer



Murray Kenneth
Director and co-founder



Dr Stefanie Federle
Chief Scientific Officer



Julia Maxwell
Polymer Scientist



Dr Marco Piccini
Senior Polymer Scientist



Molly McCarthy
Lab Chemist



Suzannah Barker
Head of Commercial
Partnerships



Hugo Adams
Chief Commercial Officer



Isabelle Picard
Materials Scientist



Dr Catherine Fletcher
Non Executive Director



kelpi
the tide is turning...

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Thank you

www.kelpi.net