

Sustainability in Plastics Today: Challenges, Reality and the Opportunities Ahead



Robinson Packaging

Jamie Riley, Head of Sustainability

22/07/2026

ROBINSON

Robinson Packaging Overview

Specialists in custom packaging solutions

with in-house design and technical expertise. We manufacture injection moulded, blow moulded and injection stretch blow moulded plastic packaging, plus rigid luxury paperboard packaging.

Our locations

- 1 Kirkby-in-Ashfield
- 2 Łódź
- 3 Mińsk Mazowiecki
- 4 Chesterfield
- 5 Brørup

- Robinson Plastic Packaging
- Robinson Paperbox Packaging

Personal care



Food & Drink



Homecare



Luxury gifting



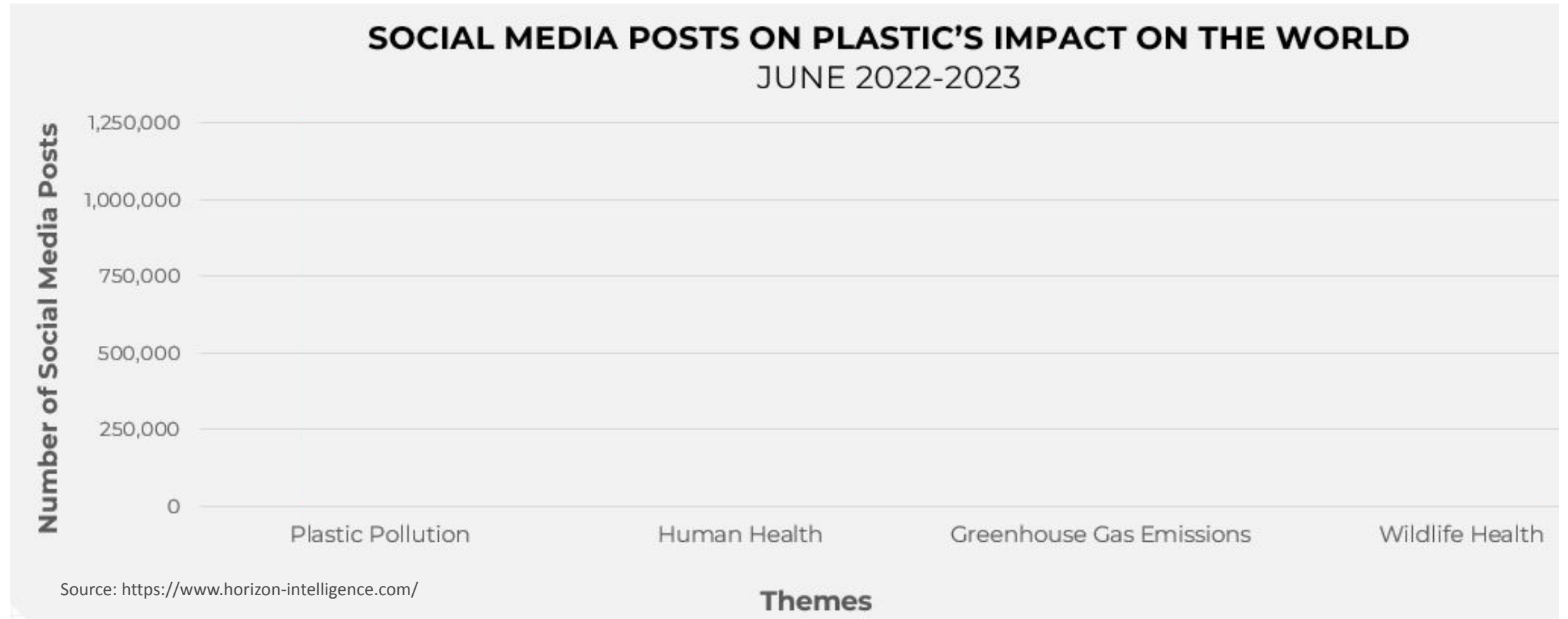
Sustainability in Plastics Today: The Challenges

Perception vs Reality



Gamboa, J. (2018). Planet or Plastic? [Photo-illustration]. National Geographic. nationalgeographic.com

What Gets Our Attention?



Perception Doesn't Always Match Impact



How much people think an action would reduce emissions

Average respondent rating out of 10

How much an action would reduce emissions

Tonnes of carbon dioxide equivalents per person per year (tCO₂eq/cap per year)*



Sustainability in Plastics Today: The Reality

The Debate That Never Goes Away

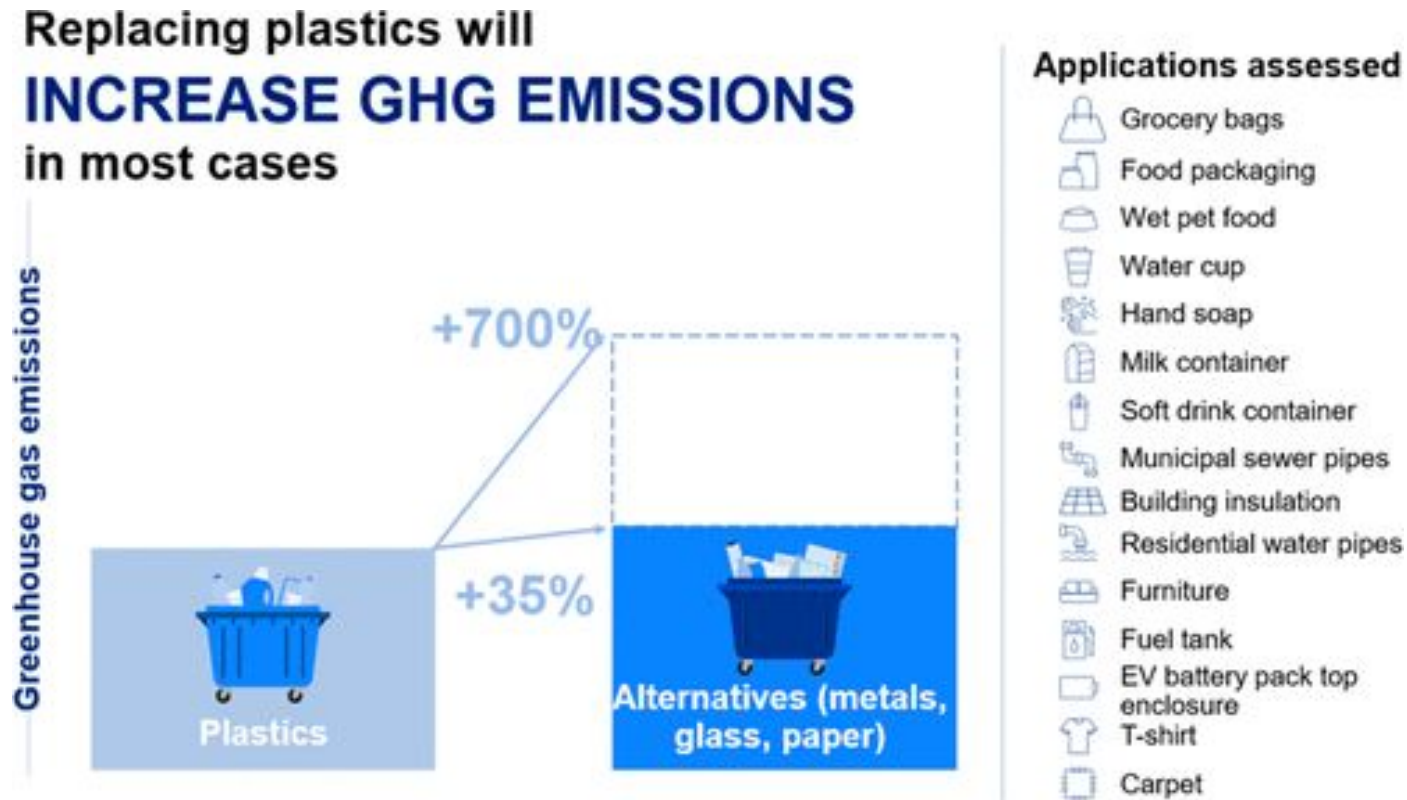
Which Is The Most Sustainable Packaging Material?

Plastic? Glass? Paper? Steel? Aluminium?

There Is No Perfect Packaging Material

The most sustainable packaging solution is the one that delivers the lowest overall environmental impact while still fulfilling its intended purpose.

Different Sustainability Objectives Can Produce Different Winners



If you are looking for a lowest GHG emissions from your packaging....

Plastic packaging often delivers the lowest greenhouse gas emissions.

1.Replacing Plastics with Alternatives Is Worse for Greenhouse Gas Emissions in Most Cases
Fanran Meng, Miguel Brandão, and Jonathan M Cullen
Environmental Science & Technology 2024 58 (6), 2716-2727
DOI: 10.1021/acs.est.3c05191

Different Sustainability Objectives Can Produce Different Winners

**Table 4: Methodology 1, packaging waste and recycling, split by material, UK 2024
(thousand tonnes and percentage rate)**

Material	Packaging waste arising	Total recycled	Achieved recycling rate
Metal	784	536	68.4%
— of which: Aluminium	287	157	54.7%
— of which: Steel	497	379	76.3%
Paper and cardboard	5,479	4,069	74.3%
Glass	2,678	1,759	65.7%
Plastic	2,265	1,154	51.0%
Wood	1,498	634	42.4%
Other* materials	23	0	0.0%
Total (for recycling)	12,727	8,154	64.1%

If your objective is maximising packaging recycling rates...

Steel, paper and glass packaging often outperform plastic packaging

<https://www.gov.uk/government/statistics/uk-waste-data/uk-statistics-on-waste#packaging-waste>

The Debate Continues...

So, which is more sustainable?

The packaging with the lowest carbon footprint?

or

The packaging with the highest recycling rate?

The answer is... it depends. Different sustainability objectives can produce different outcomes.

Sustainability Decisions Have Consequences

Does Removing Plastic Always Deliver Environmental Benefits?

PackagingNews

By Waqas Qureshi 14 June 2024

Sainsbury's switches to pulp and cardboard packs for own-brand fish and chicken

Sainsbury's is introducing a number of packaging changes across its own-brand chicken and fish lines, set to save 694 tonnes of plastic annually.



<https://www.packagingnews.co.uk/news/environment/sainsburys-pulp-cardboard-fish-chicken-14-06-2024#:~:text=All%20own%2Dbrand%20salmon%20fillet,are%20lined%20with%20polyethylene%20film.>

J Sainsbury plc

19 Sept 2024

Bready, set, go! Sainsbury's introduces new packaging across bakery, reducing over 560 tonnes of plastic a year



<https://corporate.sainsburys.co.uk/news/press-releases/bready-set-go-sainsbury-s-introduces-new-packaging-across-bakery-reducing-over-560-tonnes-of-plastic-a-year/>

GROcery GAZETTE

3rd October 2024 Cara Houlton

Sainsbury's to vacuum pack all lamb mince in UK supermarket first



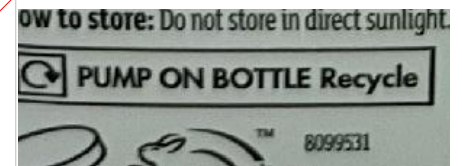
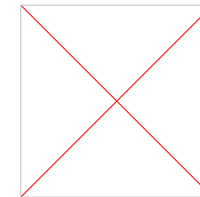
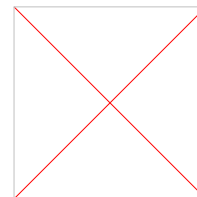
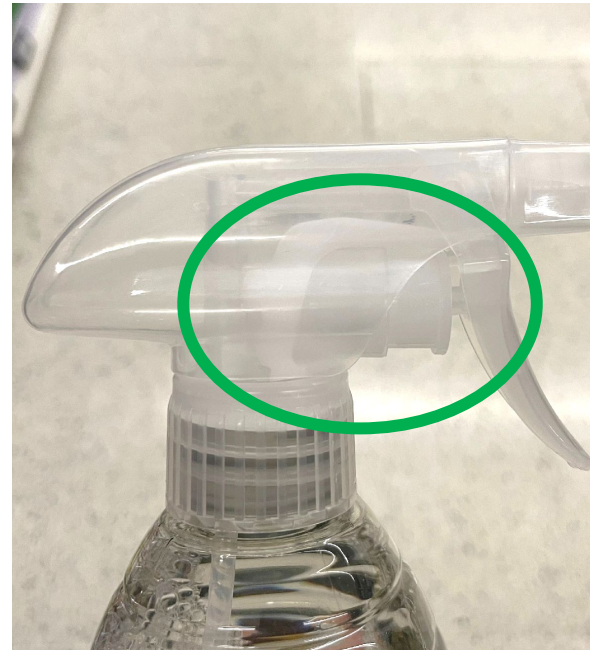
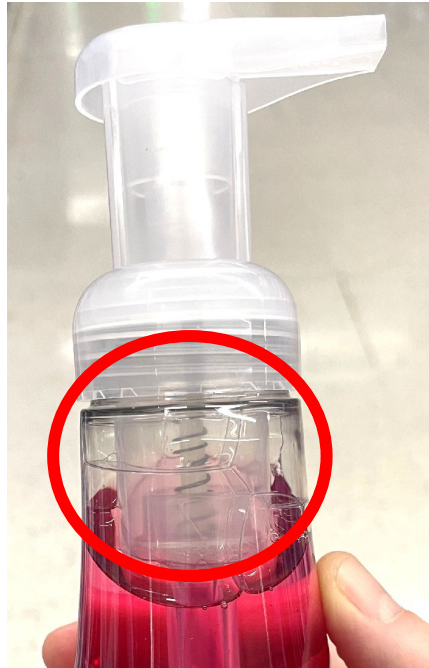
<https://www.grocerygazette.co.uk/2024/10/03/sainsburys-vacuum-pack-lamb/>

The Plastics Industry Isn't Helping Itself

Design choices continue to reduce recyclability – Example #1

Metal springs contaminate the plastic recycling stream.

Plastic springs increase recyclability and value of material stream.

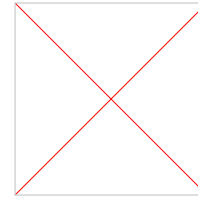


The Plastics Industry Isn't Helping Itself

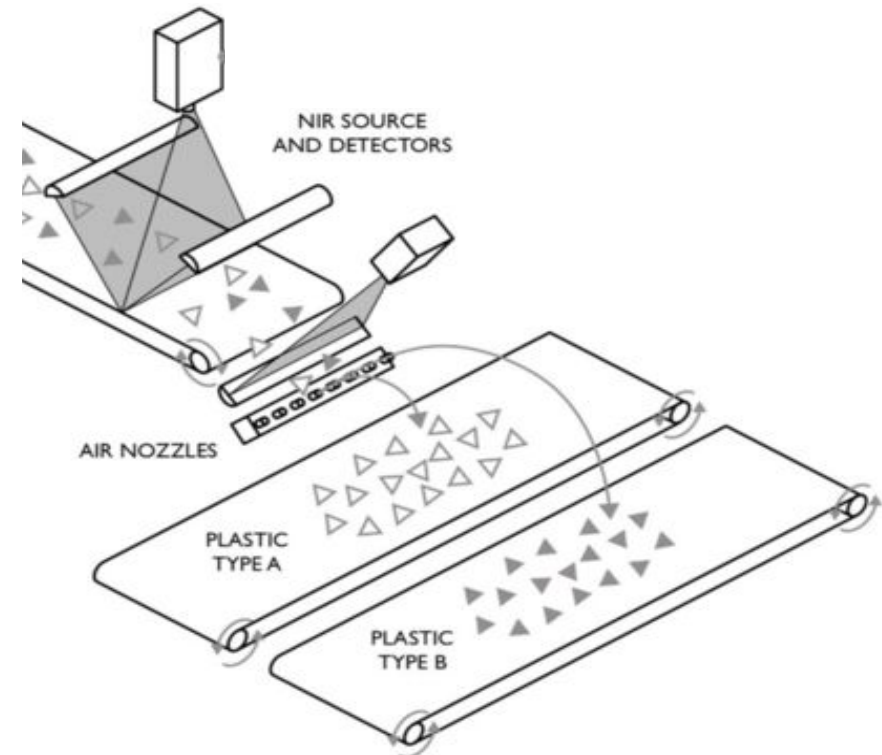
Design choices continue to reduce recyclability – Example #2

Consumers can't be trusted to manually remove. ❌

Smaller labels increase recyclability



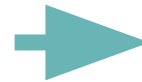
NIR (Near-InfraRed) detectors mis-sort as sleeve is often different polymer to bottle.



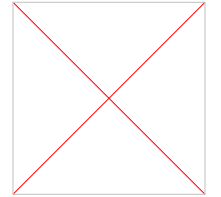
The Plastics Industry Isn't Helping Itself

Design choices continue to reduce recyclability – Example #3

Coloured PET lowers clarity and transparency, reducing quality and value to recyclers. ❌

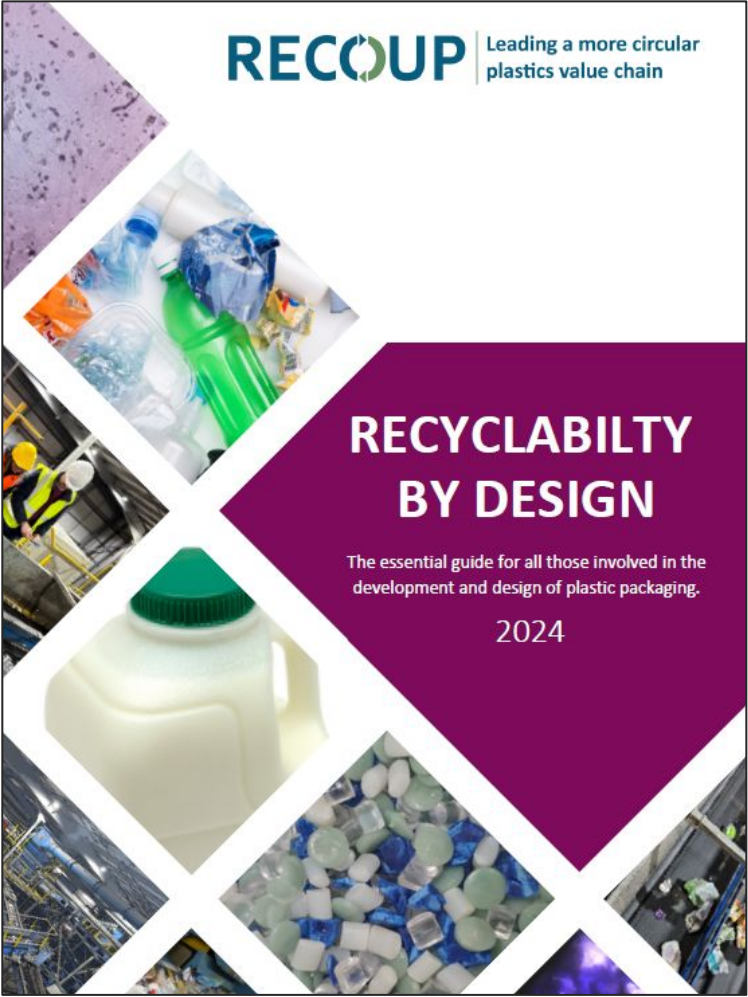


Clear PET commands a higher value which drives economic benefit of recycling PET.



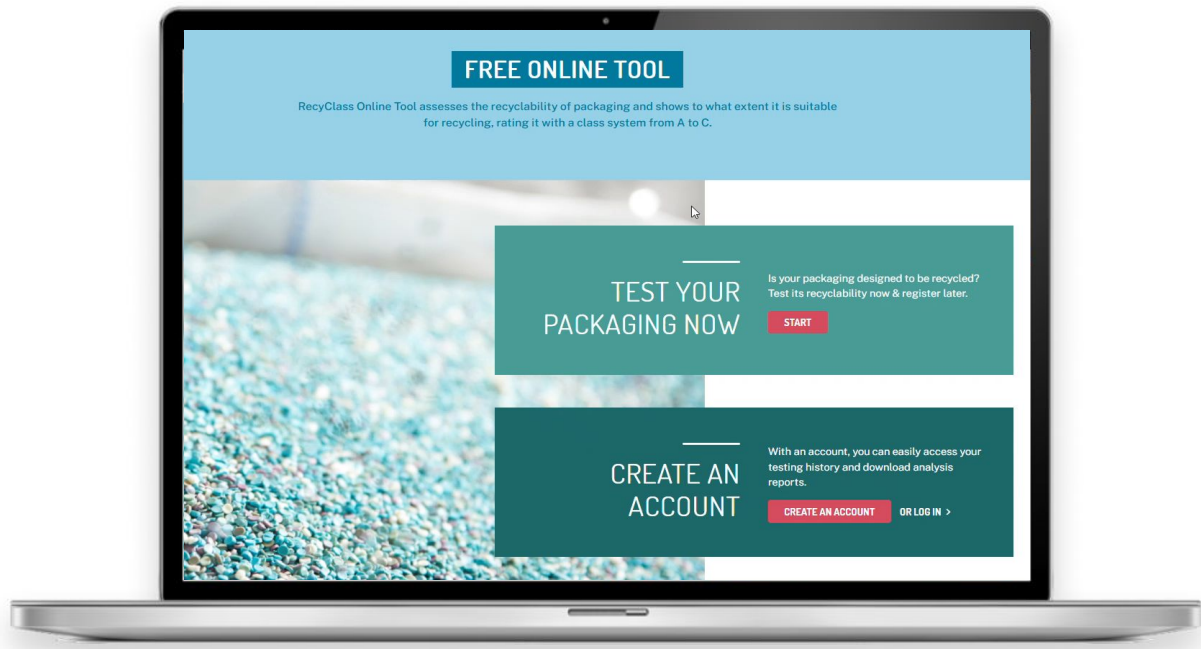
Sustainability in Plastics Today: The Opportunities

Better Design Guidance:



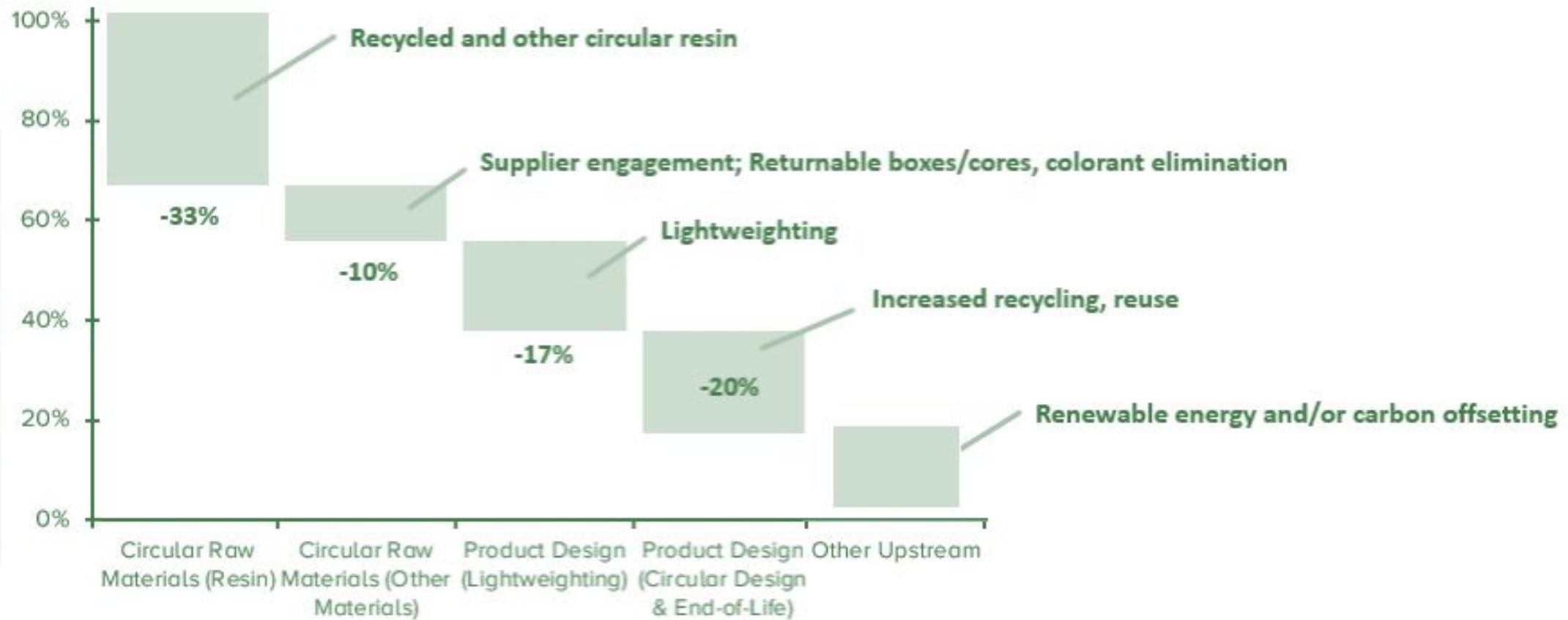
Better Design Guidance:

RECYCLASS DESIGN FOR RECYCLING GUIDELINES



Opportunities To Further Reduce Carbon

What will it take to decarbonise packaging?



No single solution will decarbonise packaging. Meaningful reductions will require action across multiple areas.

What innovations are on the horizon?

Fibre-based alternatives?



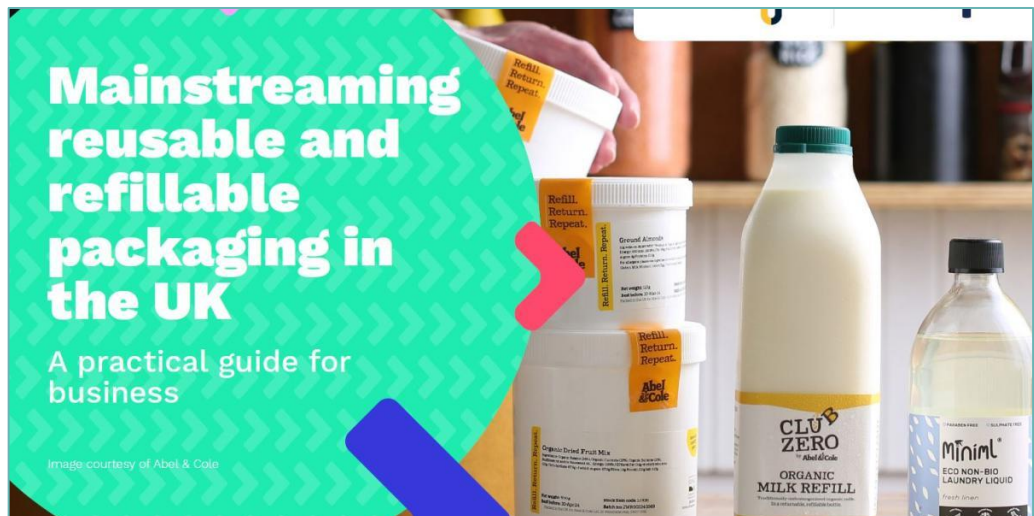
Advanced lightweighting?



Bio-based materials?



Reuse & Refill?

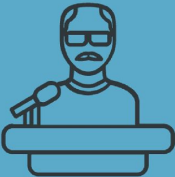
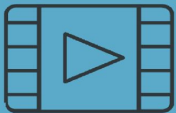


Collaboration Will Be Critical



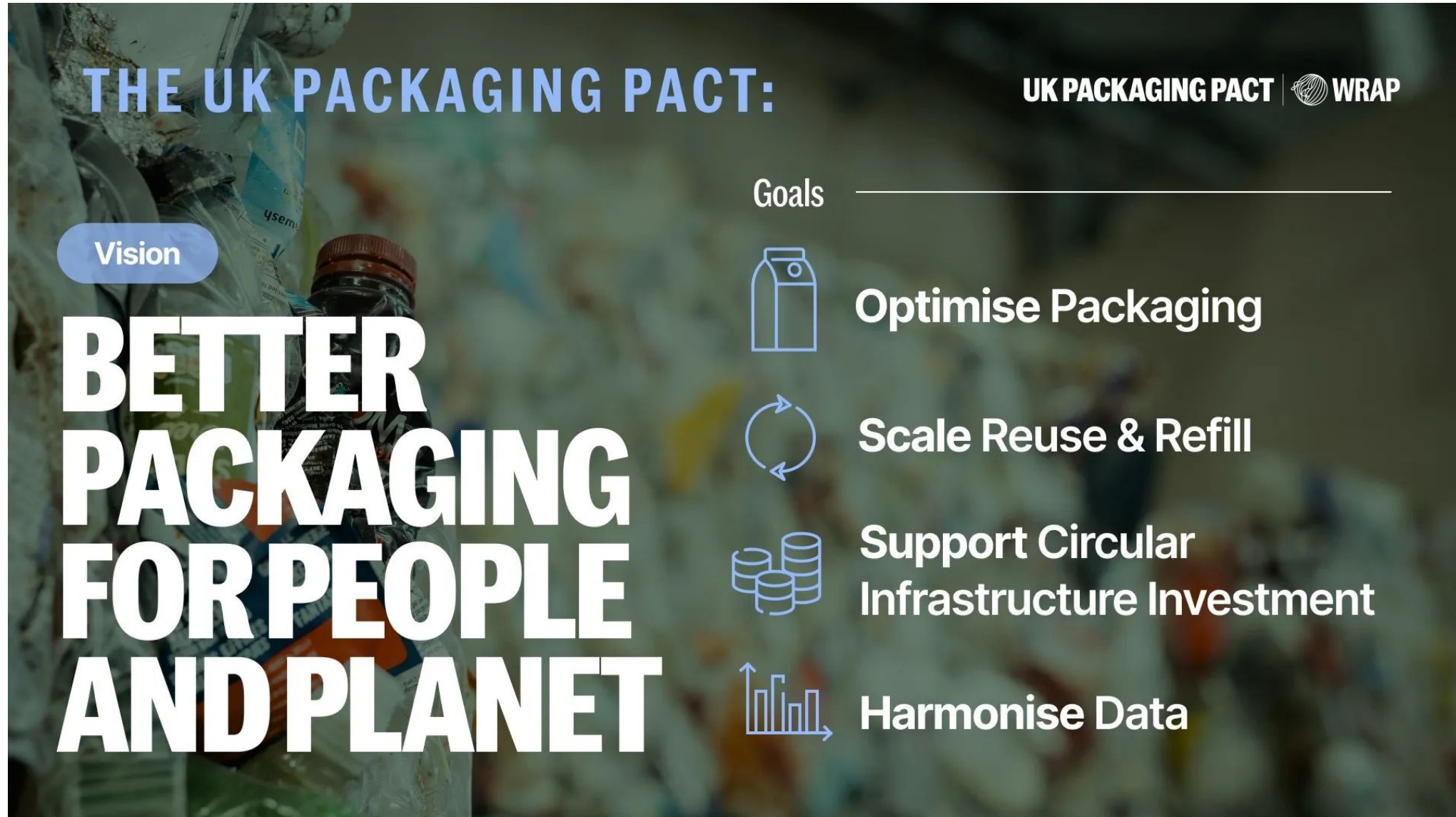
BPFF | British
Plastics
Federation

RECOUP

 International Market Data	 Carbon Footprint Tool	 Influence UK Policy
 Operation Clean Sweep	 Seminar Archive	 Join Committees

 Knowledge & Expertise Support and guidance with access to the RECOUP team's knowledge and expertise as well as member forums and working groups. Regular updates on relevant sector activities.	 Project Work & Research RECOUP can support members with project management, contribution to projects and research.	 Networking & Events FREE access to a range of RECOUP events including webinars, the annual RECOUP Conference, regional networking events and site visits.
 Resource Library Priority access to RECOUP reports and research.	 Practical and Technical Guidance Including recyclability assessments of products or packaging and access to our in-house lab and LCA services.	 Member Discounts Discounted rates for work including LCA services and any required bespoke project work.

Collaboration Will Be Critical



THE UK PACKAGING PACT:

UK PACKAGING PACT |  WRAP

Vision

**BETTER
PACKAGING
FOR PEOPLE
AND PLANET**

Goals

-  **Optimise Packaging**
-  **Scale Reuse & Refill**
-  **Support Circular Infrastructure Investment**
-  **Harmonise Data**

Key takeaways

1. Perception and environmental impact are not always the same thing.
2. Different sustainability objectives can produce different winners.
3. Reducing plastic does not automatically reduce environmental impact.
4. Many of the solutions already exist. Better design remains one of our biggest opportunities.
5. Future progress will depend on innovation, evidence and collaboration.

Please get in touch:

Jamier@robinsonpackaging.com

Or connect via [LinkedIn](#) :



Thank you