



reuse aotearoa

Using a life cycle approach to understand reusable
packaging systems in Aotearoa

LCANZ Summit | 30 March 2023 | Kelly McClean

reuseaotearoa.org.nz



What is Reuse Aotearoa?

Reuse Aotearoa is an independent organisation dedicated to building the momentum and capability to scale reusable packaging systems in New Zealand.

Drawing on evidence-based research, it focuses on understanding and telling the story of reuse, and fostering collaboration to bring reusable packaging systems to life and grow their strength and presence across the motu.



Overview

Reusable packaging is more than product or materials - it is part of a wider system that, by design, encourages cyclical participatory action and connection.

Reuse models require different life cycle considerations to single-use packaging solutions and it is important these are well understood to avoid any unintended consequences.

Life cycle thinking can support development of best practice in this space.

How does Reuse Aotearoa work?

- Reuse Aotearoa is a Limited Liability social enterprise. Funding comes from project grants, academic research and paid consulting contracts.
- We are not a membership organisation and do not operate reusable packaging businesses.
- We employ experienced researchers and have founders who are able to work in both a voluntary and remunerated basis as required.
- We also have an independent advisory committee who meet bi-monthly to progress our strategic direction and ensure accountability



Kim Renshaw _
co-Founder
Operations



Hannah Blumhardt _
co-Founder
Lead researcher

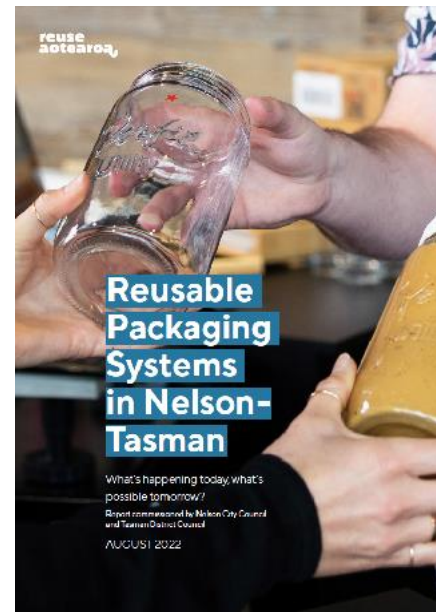


Kelly McClean _
co-Founder
circular design strategist



Matt Peryman _
Researcher

What have we been working on?



Why reusable packaging?

reuse
aotearoa

Reusable packaging is an alternative to single-use packaging.

Although single-use packaging can have features of value e.g. convenience, light-weight protection, shelf-life extension, food waste prevention and branding, there are drawbacks:

- Uses significant raw material resources - 36% of all plastic and 55% of all paper globally
- Major contributor to consumer waste streams and plastic pollution
- Takes resourcing to manage at end-of-life

There is a gap in knowledge regarding reusable packaging in NZ and how/where to scale

SETTING THE SCENE

1.1 What is reusable packaging and why is it important?

reuse
aotearoa

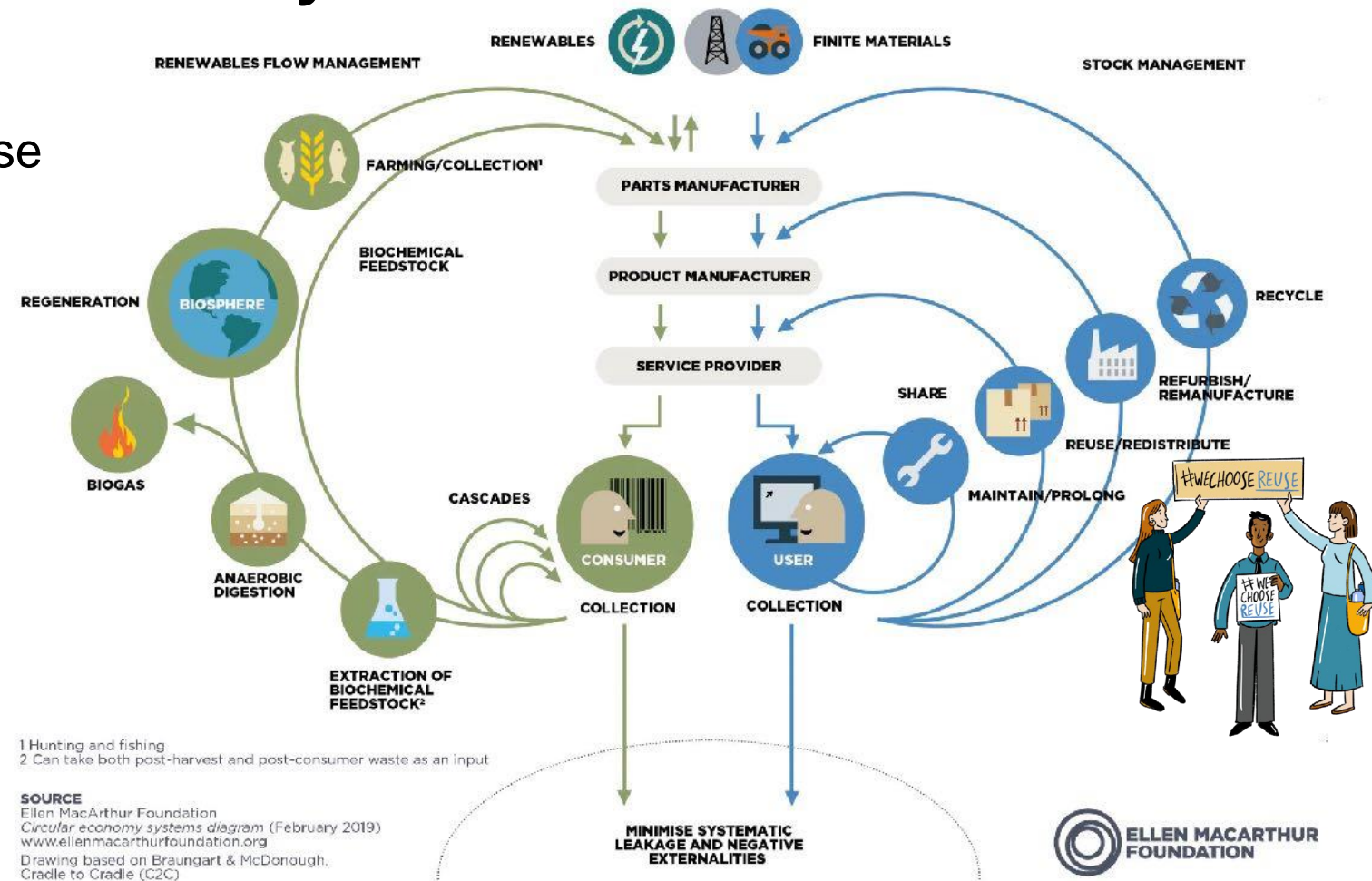
500
tōnoro

Reuse and the waste hierarchy



Reuse and the circular economy

- Design out waste and pollution
- Keep products and materials in use
- Regenerate natural systems



Sector snapshots



2.1
Hospitality,
tourism &
accommodation



2.2
Beverages



2.3
Construction



2.4
Groceries



2.5
Personal care
& cleaning
products



2.6
Transit /
transport
packaging

Returnable packaging



Refill by Bulk Dispenser



Transit / supply chain packaging



Barriers to reuse systems



- Uneven playing field - single-use packaging costs are externalised
- Waste and recycling services advantage and/or subsidise infrastructure to manage single-use packaging
- Making progress requires collaboration, shared infrastructure and services.
- The lack of an organised, collective approach reduces economies of scale & drives up costs

This means reusable packaging is not seen as realistic by businesses or government – consequently it's heavily under-resourced, under-promoted & poorly understood.

Recommendations

reuse
aotearoa,



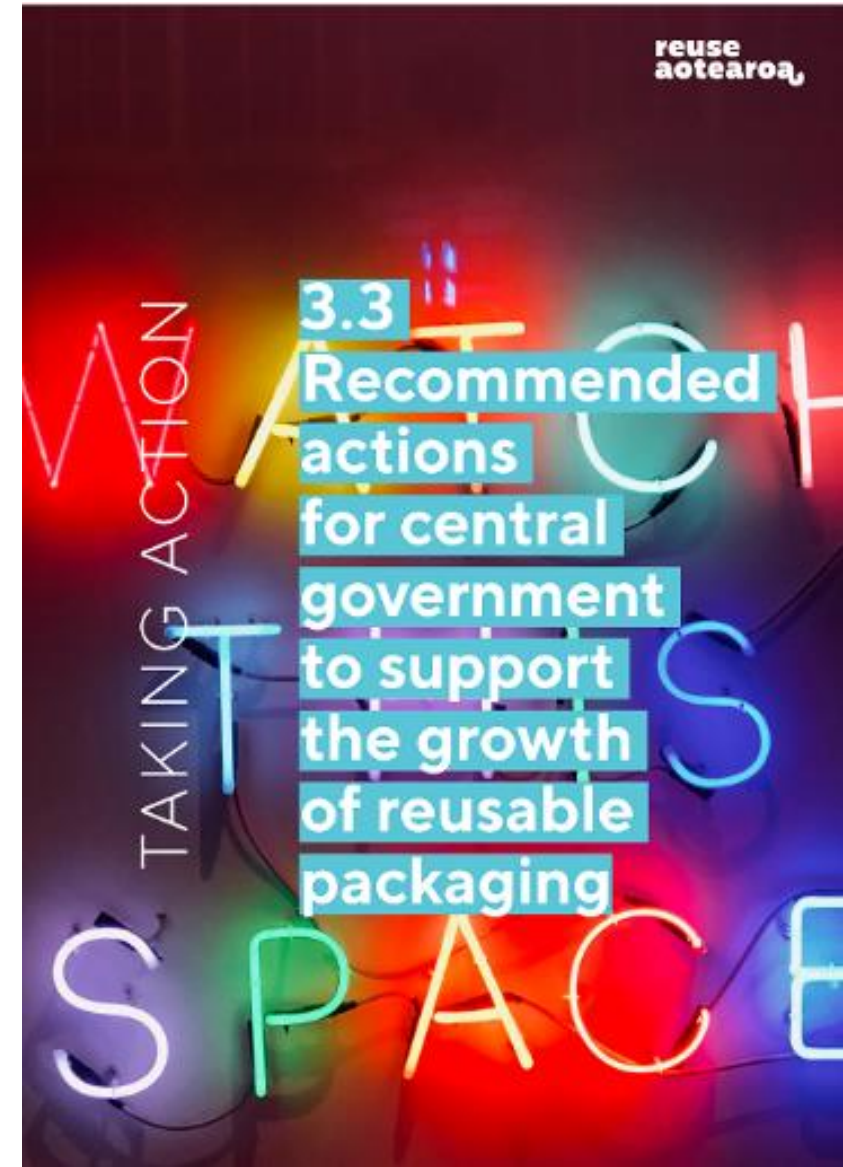
TAKING ACTION

3.1
Recommended
actions for
councils to
support the
growth of
reusable
packaging



TAKING ACTION

3.2
Recommended
actions for
industry
groups to
boost reusable
packaging



TAKING ACTION

3.3
Recommended
actions
for central
government
to support
the growth
of reusable
packaging

Reuse vs recycling

- Waste and recycling infrastructure (and supporting industry) is well established in NZ
- Scaling reuse systems requires capital investment in vessel fleet, technology, logistics etc.
- Similarly to recycling activity, reuse is driven by people
- Mapping of circular systems like recycling and reuse require life cycle thinking and exploration of assumptions



Transportation



Sorting facility



Baling / storage




Reprocessing capability

Recycling infrastructure examples

Upcoming research priorities

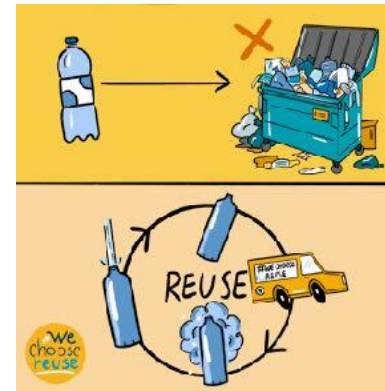
- Kaupapa Māori understandings of reuse
- Infrastructure mapping and cataloguing
- Life cycle assessment

- 
- New Zealand context
 - Targeted application - where/how
 - Interested in systems design - what does best practice look like?
 - Minimising impacts - carbon, water & energy use



Reuse considerations - life cycle thinking

- Closed loop vs open loop
- Material selection, weight and safety
- Design for durability and longevity
- Local and/or predictable supply
- Consumer behaviour and return rates
- Transportation mode and distances
- Washing/sterilisation processes
- End-of-life



?

Example - washing



Community event
washing



Commercial
washing facility

Thank you!

Contact:

Kim Renshaw:

reuse@reuseaotearoa.org.nz

Hannah Blumhardt:

research@reuseaotearoa.org.nz

Kelly McClean

impact@reuseaotearoa.org.nz

**reuse
aotearoa**



Reuseaotearoa



Reuse-aotearoa



Reuse_aotearoa