Scaling up Reusable Packaging

Important tips for today's webinar:

- Use headphones/earphones for clarity of sound.
- Use the chat box to say hello - enter your full name and organisation.
- Use the Q&A function to submit questions for the group discussion.

Please note: This session will be recorded and made available soon

Jayne Paramor & Lachlan Feggans

23 February 2022

Agenda

- Welcome
- Scaling up Reusable Packaging
  Jayne Paramor, APCO
- Reusable Business Models
  Lachlan Feggans, CHEP
- Q&A

Scaling up Reusable Packaging

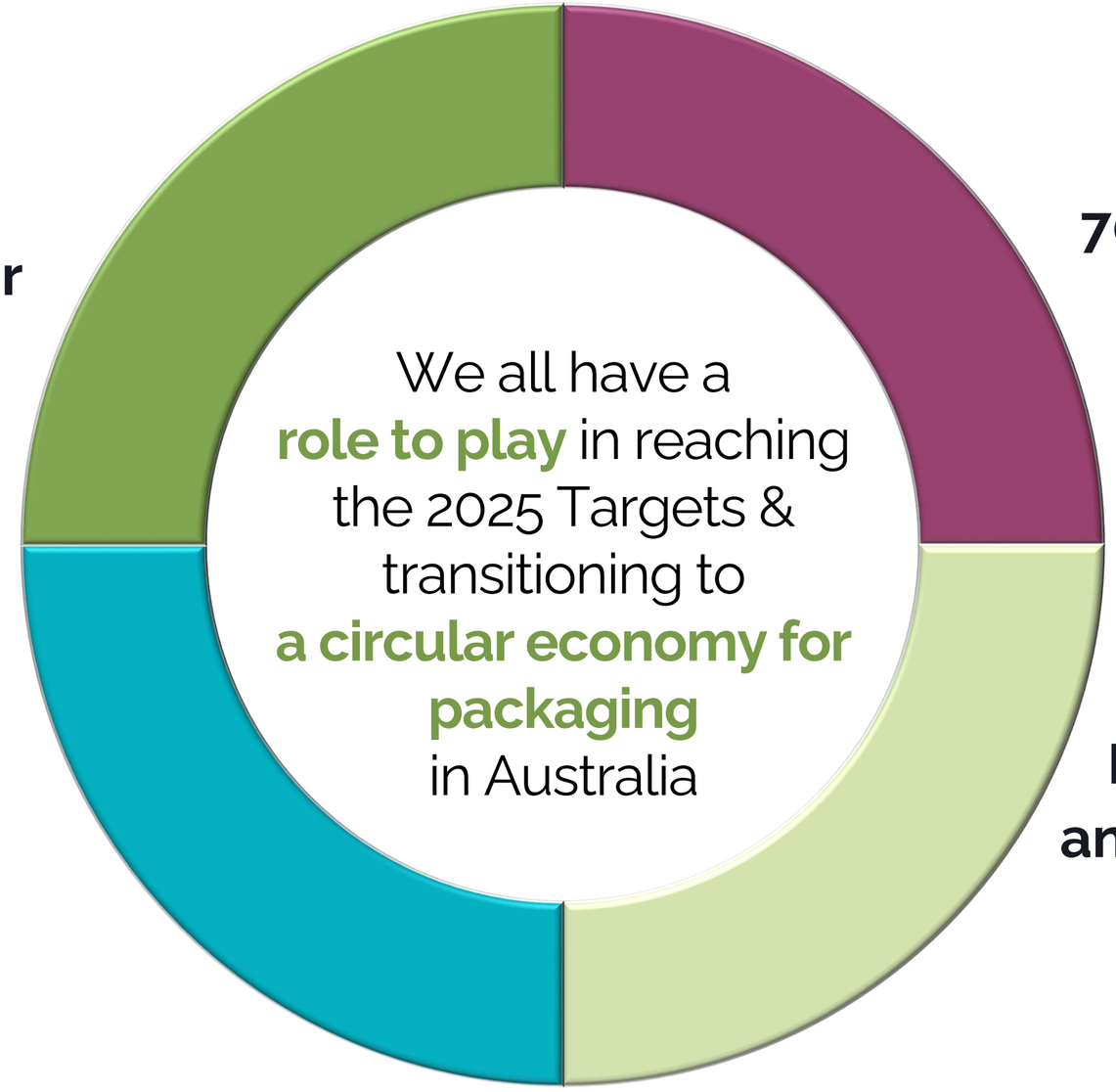
Jayne Paramor
Sustainability Manager
APCO

So what is reusable packaging & why is it so important?

2025 National Packaging Targets

100% of packaging to be reusable, recyclable or compostable

70% of plastic packaging recycled or composted



50% average recycled content across all packaging

Phase out problematic and unnecessary single-use plastic packaging

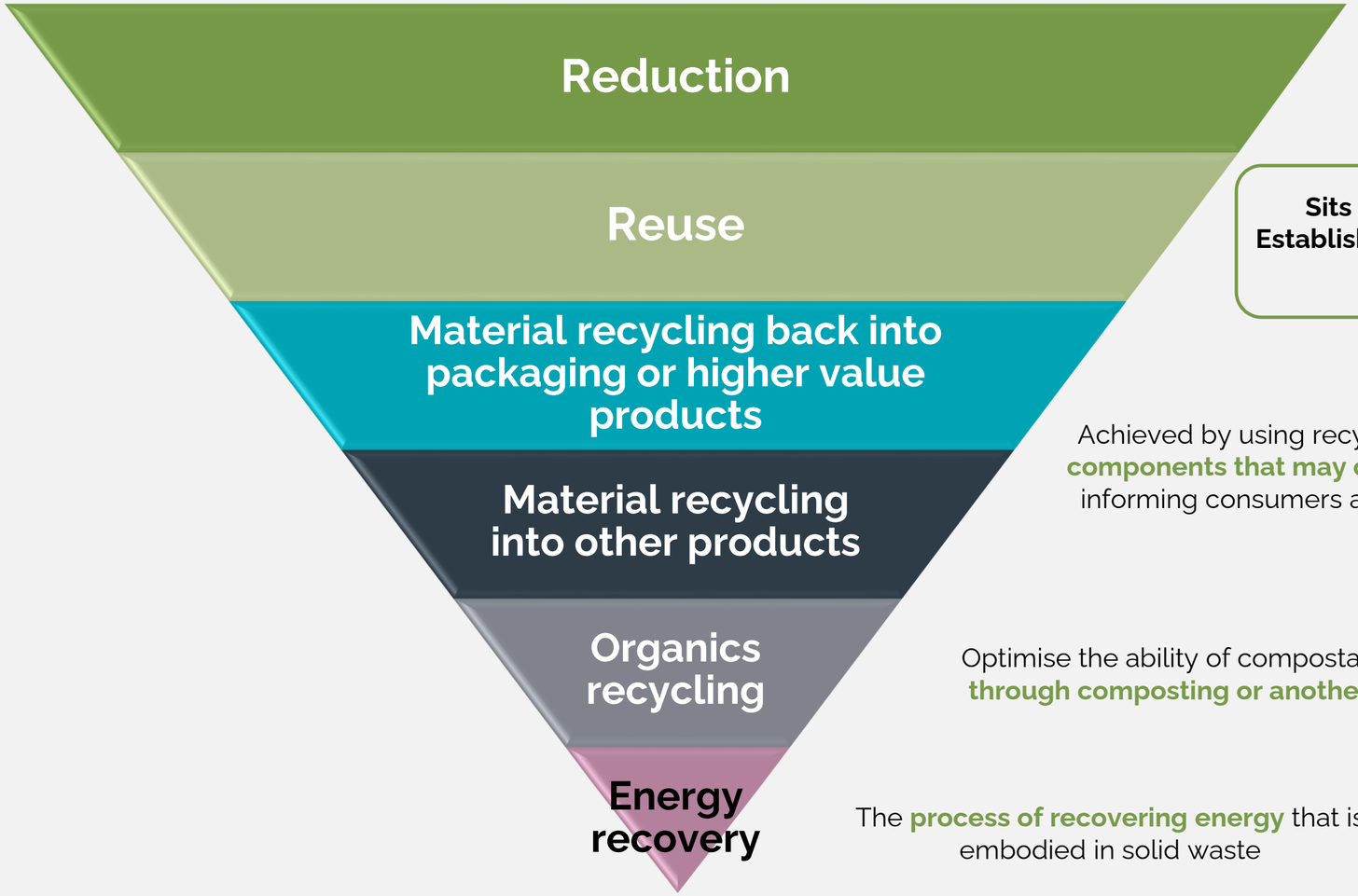
Why?

Almost one in five consumers purchased a reusable water bottle in 2018-19

- Australian consumers are **showing increasing interest and motivation** to reuse rather than buying new items
- There is considerable **potential to expand the use of reusable packaging** in Australia and an extensive business opportunity to tap into
- More jurisdictions are introducing legislated **bans on single-use plastic items**
- Opportunities to expand and implement **reuse systems** are being **increasingly relevant and necessary**

Design for recovery

Achieve the highest potential environmental value, and extend the life of packaging



Design packaging to **eliminate or reduce** avoidable product waste

Sits second highest, consider design for reuse. Establish a return system and also design for recycling at end of life

Achieved by using recyclable materials, by **avoiding materials or components that may contaminate the recycling process**, and by informing consumers about options for recovery prior to disposal

Optimise the ability of compostable packaging to be **recycled through composting or another organics recycling process**

The **process of recovering energy** that is embodied in solid waste

Reusable: defined

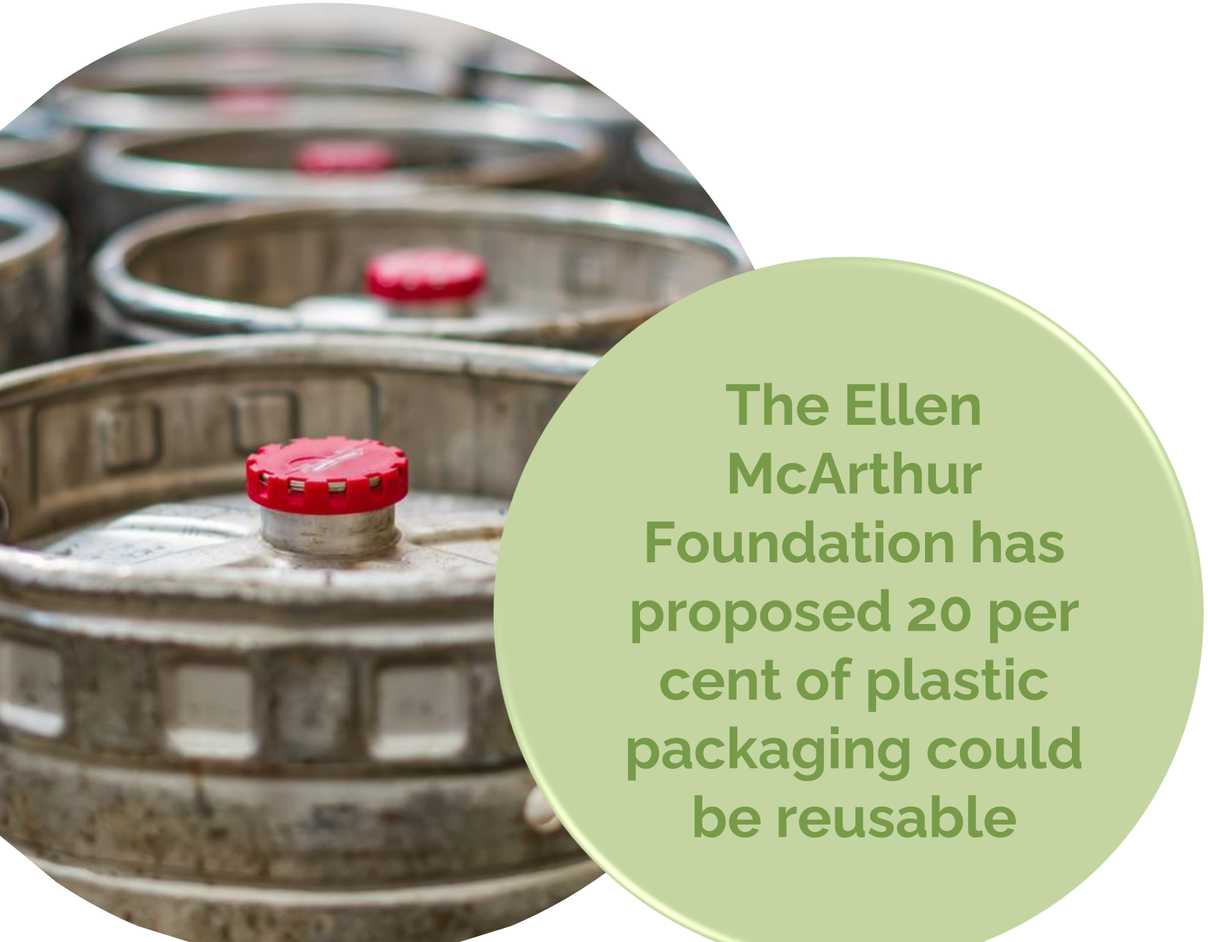
- Packaging which proves its capability of accomplishing **a minimum number of trips** (or reuse cycles) within its lifecycle, in a **purposefully designed system of reuse**

- Reusable packaging **must be used again** in the same application for which it was originally designed

Repurpose Vs Reuse

- A rubber band used to hold vegetables, or a glass jar, can both be **kept by the consumer and repurposed to hold other items**
- In this example the items are not in a **purposefully designed system of reuse** for the same application
- Whilst **repurposing is beneficial**; it is important to identify the difference

Setting targets



The Ellen McArthur Foundation has proposed 20 per cent of plastic packaging could be reusable

- Setting targets for reusable packaging enable organisations and industry to have a **collective goal** to work towards and to monitor the impact of these programs

- Businesses making **public commitments towards reuse** signals to the market the forthcoming demand and offers certainty to invest in building capacity

Defining reusable packaging models

Reusable packaging models

Business to Consumer Market

Refill at home
Packaging owned by Consumer

Users refill their reusable container at home as part of a specific system of reuse (e.g. with refills that can be purchased in store or online with home delivery through a subscription service).

Refill on the go
Packaging owned by Consumer

Users refill their reusable container away from home as part of a specific system of reuse (e.g. at an in-store dispensing system).

Return from home
Packaging owned by Business

Packaging is picked up from the home of the User by a pick-up service (e.g. by a logistics company).

Return on the go
Packaging owned by Business

Users return the packaging at a store or drop-off point (e.g. in a deposit return machine or in mailbox).

Business to Business Market

Individual adoption
Packaging owned by Business

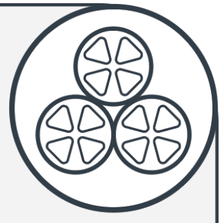
Dedicated reusable containers and reverse logistics system for one company.

Single industry pooling
Packaging owned by Industry

Reuse system operated and (mostly) owned by a third-party pool operator, offered as a service to companies in a single industry.

Multi industry pooling
Packaging owned by Industry

Reuse system based on interconnected pool operators and networked logistics across industries. (e.g. standardised shipping pallets used to distribute goods across multiple industries and products)



Physical internet
Packaging owned by Industry

Logistics system based on standardised, modularised and reusable containers, using open networks across industries with pooled assets and protocols.

Benefits and opportunities to using reusables

Benefits to consumers

- Customisation of **product quantities** and **personalised packaging**
- **Improved user experience** with aesthetically-pleasing, functional and quality packaging
- **Sense of belonging to a community** through brand loyalty and incentive schemes
- **Cost saving through more economical purchasing**, such as bulk buying, refills or use of concentrates

Benefits to the environment

- Life cycle assessment (LCA) studies of reuse systems are typically used to **quantify the environmental impact of packaging**
- Studies have found **significant environmental benefits** of reusable packaging compared to single-use alternatives
- **Minimised CO_2 emissions** as a result of standardised packaging and shared logistics improving transportation efficiency
- Reduced energy use and waste production

Benefits to business

- Logistic efficiencies with **reduced handling** of the product along the supply chain, **improved ergonomics** and **worker safety** achieved by reducing hazards
- **Cost reductions and savings** as a result of replacing single-use packaging materials
- Simplified and more transparent and traceable supply chains
- **Increased consumer insights** and data through using smart systems
- **Aesthetic and functional packaging design** made from higher quality and durable materials

Leverage the opportunities of reuse

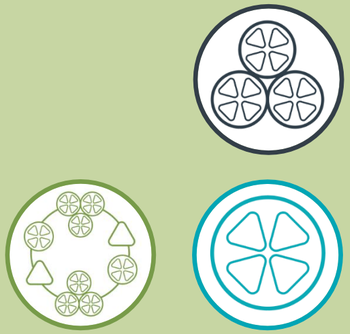
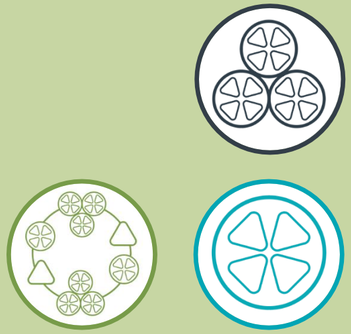
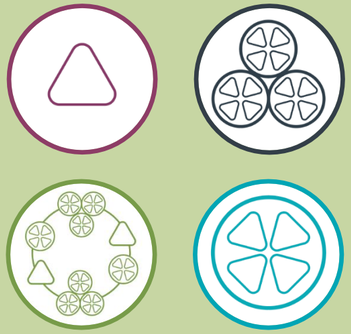
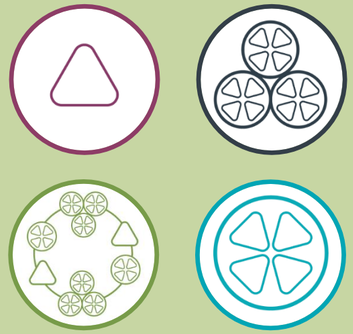
Reuse opportunities in the Business to Consumer (B2C) market

Current trends indicate that consumer preferences are shifting towards less wasteful, more eco-friendly packaging options. There are many opportunities which business can leverage to expand reusable packaging systems

Opportunities	Leverage existing infrastructure	Smart systems	Leverage return systems to encourage the return and recycling of other packaging	Compact refills and concentrates
B2C Reuse Model 				

Reuse opportunities in the Business to Business (B2B) market

The logical next step for industry is to explore opportunities for increasing uptake of these systems, to maximise impact across the supply chain

Opportunities	Standard packaging formats for logistic efficiencies	Shared design	Reduced transportation and packaging costs	Smart systems
B2B Reuse Models				

Consider the challenges, adapt the solutions

Considerations	Information barriers leading to low uptake & customer confusion	Customer motivation & upfront costs dissuade consumers	Start-up & ongoing costs when business transition to reusable	Quality, health and safety concerns
Recommended Solution	Provide informative, targeted marketing and educational materials highlighting potential benefits for the consumer and the environment	Accompany development and implementation of reuse models with comprehensive communications strategy to equip consumers/end users with knowledge and confidence in reuse	Compare costs at a medium long term scale, as reusable packaging can be more cost-effective	Adhere to clear guidelines in the Australian market and produce targeted marketing to reassure end users that the system of reuse is safe to participate in

Start the journey to develop a reusable packaging solution

Is the packaging fit for purpose?

Is the reusable packaging able to perform its intended purpose?
Is it designed for reuse in a dedicated system, in line with international definitions for reusable packaging?

Is the packaging designed to accomplish a minimum number of trips (or reuse cycles)? Can it be used again for its original purpose, in a specific system of reuse?

- How many cycles has the packaging been designed to complete in the system of reuse?
- Has the packaging been designed to be reused for its original purpose?

Does the system of reuse fit one or more of the reuse models?

- Who owns the packaging?
- Which model(s) of reuse has the packaging been designed for?

Are more than half of the packaging components by weight or volume reusable?

- What is the proportion of reusable components in the packaging , listed by material, weight or volume?

Is the packaging practical for reuse?

Is the packaging designed in a practical way so it can be reused as many times as possible in its system of reuse?

Is the packaging able to complete a minimum number of trips (or reuse cycles) before end-of-life?

Has an LCA been conducted? How many reuse cycles does the packaging need to complete to have an environmentally neutral impact?

If no LCA, how many reuse cycles has the packaging been designed to complete in its system of reuse, before reaching end-of-life/retirement from the reuse system?

Is the time it takes for the packaging to complete one reuse cycle proportional to the time it takes to consume the product, under normal conditions.

What is the estimated average cycle time for the packaging?

What product was the packaging designed to hold?

How long should it take to consume the product within the packaging?

Is the packaging recyclable upon retirement from the reuse system, via an existing resource recovery pathway?

Is each packaging component classified as recyclable through assessment via PREP?

If not, can a dedicated recycling program be established to recover the packaging at end of life?

How accessible is the system of reuse?

Refill at home

- How can customers purchase refills?
- Can refills be purchased at the point of initial purchase?
- How many locations are available to purchase refills?
- What is the average distance or travel time between the initial point of product purchase and locations to purchase refills?

Refill on the go

- Are refills possible at the point of initial purchase?
- Where can customers refill the packaging?
- How many refill locations are available?
- What is the average distance or travel time from the refill station to the initial point of product purchase?

Return from home

- How does the customer return the packaging?
- What is the geographic reach of the collection service?
- How often can collection be conducted?

Return on the go

- Are returns possible at the point of initial purchase?
- Where can customers return the packaging?
- What is the average distance or travel time between the return locations and initial point of purchase?
- Is it withing range of a commonly or frequently visited location?
- How many return locations are available to Users?

Now get inspired!

Naked Foods Organic Health Foods (Australia)

Refill on the go

- A chain of organic food stores
- Encouraging customers to **bring and refill their own reusable packaging**, which can be filled by a scoop from the drums
- Incentive is provided as a **5% discount** to those who bring their own reusable packaging
- Customers who do not bring reusable packaging have access to **brown paper bags** which can be **recycled at home**

Neverfail water coolers (Australia)

Return from home

- Neverfail is committed to reducing their environmental impact
- Their delivery model for drinking water, services households and business **in reusable returnable bottles**
- To participate in the service, customers (businesses or individuals) **rent a water cooler, and Neverfail will collect empty water bottles** when delivering a replacement
- Neverfail capitalise on **reverse-logistics opportunities**, driving efficiencies in the supply chain and provide easy access to customers for return schemes

Reusable Business Model

Lachlan Feggans
Director – Sustainability Asia / Pacific
CHEP

Brambles CHEP
A Brambles Company

Our 2025 Sustainability Framework

Brambles' sustainability vision is to pioneer regenerative supply chains

Re-use, Resilience and **Regeneration** – our solution to the world's greatest challenges

Brambles can deliver life's essentials every day in a nature-positive way

Brambles

Our 2025 Vision and Targets

"To pioneer a regenerative supply chain"

Forest Positive
Sustainably grow two trees for every tree we use

Climate Positive
Commit to a 1.5° future through a carbon neutral business

Waste Positive
Zero waste to landfill
Create reusable solutions out of existing waste

Supply Chain Positive
Make our business even more circular

Collaboration Positive
Double the number of customers collaboration to 500

Workplace Positive
Become a top company in inclusion & diversity

Food Security
Food to 10 million people

Circular Transformation
1 million change makers in Circular Economy

Social and Natural Positive
Increase the plant social and natural capital

Diversified Product Offering

Pallets

Timber, plastic, display

Reusable Plastic Containers (RPCs)

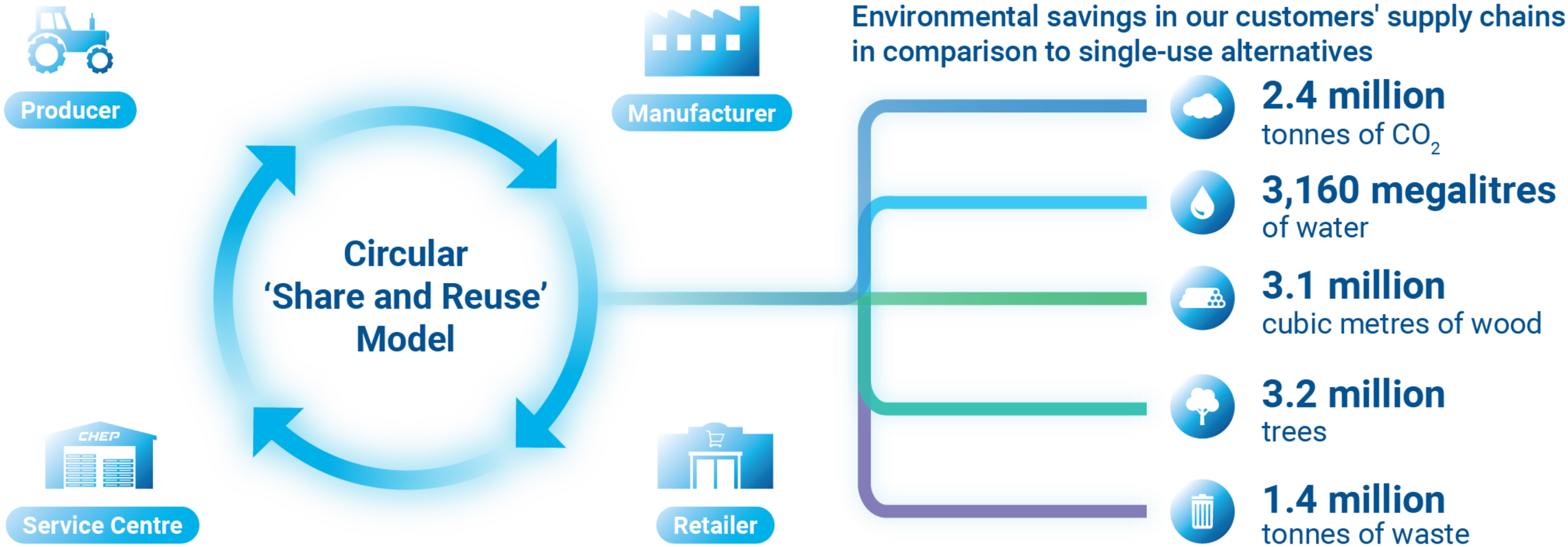
Containers

Specialised bins and containers

Reusable, durable, repairable; each use eliminates single use packaging alternatives

Supply Chain Positive

Highlights



The Environmental Savings are Significant

CHEP Lifecycle Assessments (LCAs) - CHEP platforms vs. single-use alternatives

Platforms with LCAs*	Carbon savings	Waste savings	Water savings	Single-use alternatives
	88%	99%	-	
	68%	99%	85%	

*Coming by the end of FY 22

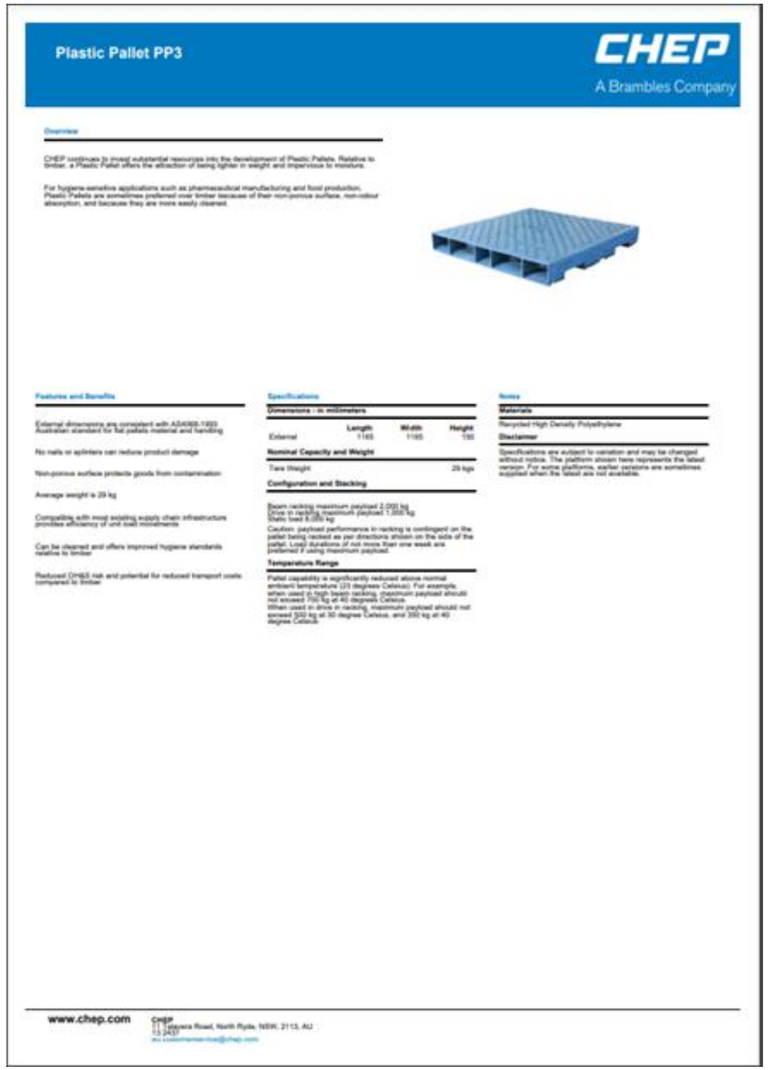
Supporting APCO Members

Collaboration

+ **Data**
  Volume of CHEP reusable platforms TY v LY

+ **Information**
  What CHEP Reusable Platforms are made of that your business uses

+ **Sustainability Certificate**
  As “Supporting Evidence”



Plastic Pallet PP3

CHEP
A Brambles Company

Overview

CHEP continues to invest substantial resources into the development of Plastic Pallets. Relative to timber, a Plastic Pallet offers the attraction of being lighter in weight and impervious to moisture.

For hygiene-sensitive applications such as pharmaceutical manufacturing and food production, Plastic Pallets are sometimes preferred over timber because of their non-porous surface, non-odour absorption, and because they are more easily cleaned.

Features and Benefits

External dimensions are consistent with AS4068-1993 Australian standard for flat pallets material and handling

No nails or splinters can reduce product damage

Non-porous surface protects goods from contamination

Average weight is 29 kg

Compatible with most existing supply chain infrastructure provides efficiency of unit load movements

Can be cleaned and offers improved hygiene standards relative to timber

Reduced OH&S risk and potential for reduced transport costs compared to timber

Specifications

Dimensions - in millimeters

	Length	Width	Height
External	1165	1165	150

Nominal Capacity and Weight

Tare Weight 29 kgs

Configuration and Stacking

Beam racking maximum payload 2,000 kg
Drive in racking maximum payload 1,000 kg
Static load 8,000 kg

Caution: payload performance in racking is contingent on the pallet being racked as per directions shown on the side of the pallet. Load durations of not more than one week are preferred if using maximum payload.

Temperature Range

Pallet capability is significantly reduced above normal ambient temperature (23 degrees Celsius). For example, when used in high beam racking, maximum payload should not exceed 700 kg at 40 degrees Celsius.
When used in drive in racking, maximum payload should not exceed 500 kg at 30 degrees Celsius, and 350 kg at 40 degrees Celsius

Notes

Materials

Recycled High Density Polyethylene

Disclaimer

Specifications are subject to variation and may be changed without notice. The platform shown here represents the latest version. For some platforms, earlier versions are sometimes supplied when the latest are not available.

www.chep.com

CHEP
11 Stevens Road, North Ryde, NSW, 2113, AU
13 2437

CY 2021 – Supply Chain Collaboration

CHEP
A Brambles Company

Sustainability Certificate

In recognition for contributing to the circular economy by sharing and reusing packaging resources,

‘Your Business Here’

use of Timber Pallets and Reusable Plastic Containers (RPCs) provided by CHEP Australia is creating more sustainable supply chains and progressing the United Nations Sustainable Development Goals 12 and 15

Promoting sustainable production and circular business models

Sustainable use of the world’s forests

Carbon Emissions Saved

4,462 Tonnes CO_2-e

Equivalent to 6,695 Trees planted

Water Saved

14 MegaLitres

Equivalent to 6 Olympic Swimming Pools

Solid Waste Saved

1,840 Tonnes

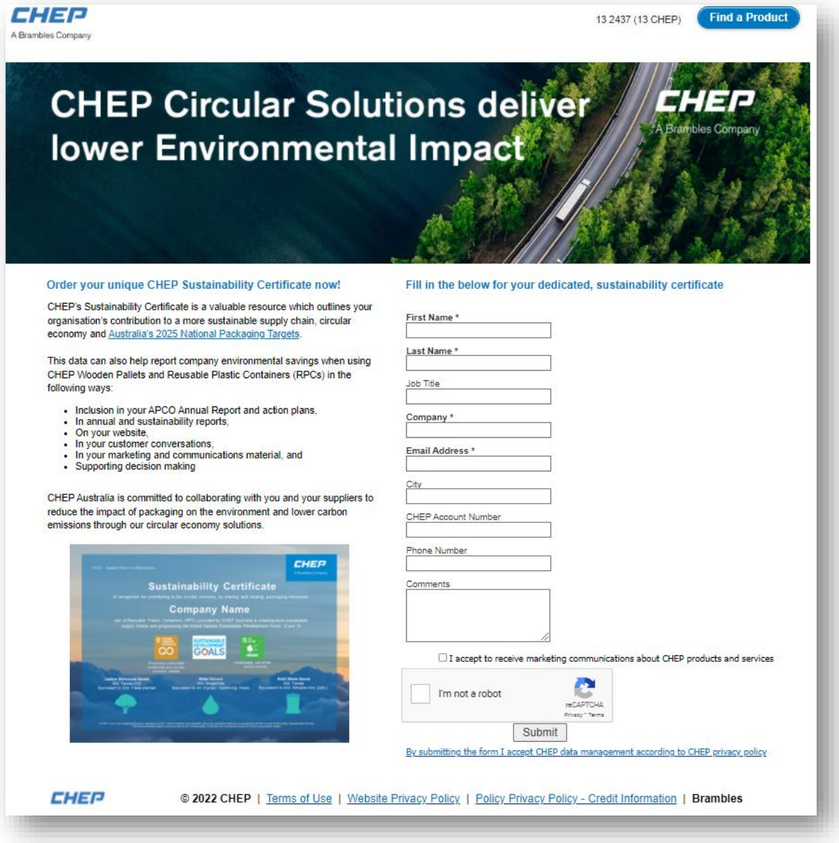
Equivalent to 16,856 Wheelie bins (240L)

CHEP LCAs are independently peer-reviewed and ISO 14044 compliant. Sustainability data and calculation methods are assured by KPMG as part of Brambles’ Sustainability Review.
The Environmental impacts communicated in this Sustainability Certificate are calculated using Life Cycle Assessment studies.

To Request a Certificate

Collaboration

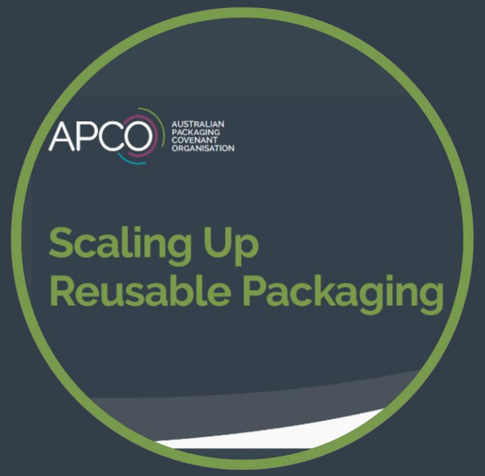
Call 13 CHEP (2437)
or
Click on link in chat
or
key in
go.chep.com/
APCO-Annual-Report



Q&A

Please submitt your questions using the Q&A function

Next steps



Download the resource & check it out

Get started, investigate where you can use reusables

Implement reusable models & analyze their impact

Thank you

Any questions? Get in touch!

Web: www.apco.org.au
Email: apco@apco.org.au
LinkedIn: www.linkedin.com/company/australian-packaging-covenant-organisation/