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THE ROLE OF PACKAGING

WHAT IS PACKAGING, WHY IS IT IMPORTANT, AND HOW CAN WE MAKE IT MORE SUSTAINABLE?

APCO
AUSTRALIAN PACKAGING COVENANT ORGANISATION

Introduction

This resource has been prepared by the Australian Packaging Covenant Organisation (APCO) to explain packaging and its importance, and to outline what businesses can do to make packaging more sustainable as they work towards the *2025 National Packaging Targets*.

What is packaging?

Packaging is the material used for the containment, protection, marketing or handling of products. This includes primary, secondary and tertiary (freight) packaging in both consumer (business-to-consumer - B2C) and industrial packaging applications (business-to-business – B2B)[1].

Figure 1: *Primary packaging – wine bottles*

Primary packaging, also known as consumer or retail packaging, refers to the layer/s that contain and protect individual product units up to the point of sale (e.g. bag, bottle, jar, box etc.) and that are removed for use. Primary packaging also includes any packaging given to consumers at the point of retail sales (e.g. retail bag, tissue paper etc.) as well as packaging delivered to consumers with online sales (e.g. bag, cushioning, box etc.)[2].

Figure 2: *Secondary packaging – wine bottles in a case*

Secondary packaging is additional to the primary packaging and is used to protect and collate individual product units during storage, transport and distribution. This may include shelf-ready packaging (SRP), also known as retail-ready packaging (RRP) or counter- top display units (CDUs)[3], containing multiple product units and used for retail display.

Figure 3: *Tertiary packaging – cargo boxes*

Tertiary packaging is used in the protection and shipping of a product. This type of packaging is also known as distribution packaging, transport packaging and business-to-business (B2B packaging)[4]. It consists of packaging and components such as cardboard cartons, pallets, slip sheets, stretch wrap, strapping and any labels. Tertiary packaging is rarely seen by consumers.

[1] *APCO (2018), Market Impact Assessment Report - Chinese Import Restrictions for Packaging in Australia, Australian Packaging Covenant Organisation, Sydney, available at:* ***https://www.packagingcovenant.org.au/documents/item/1224***
[2] *APCO (2019), Sustainable Packaging Guidelines, Australian Packaging Covenant Organisation, Sydney, available at:* ***https://www.packagingcovenant.org.au/documents/item/1091***
[3] *APCO (2019)*
[4] *APCO (2019)*

Why is packaging important?

Packaging serves multiple functions throughout its life, including (but not limited to) those shown below.

FUNCTION	EXPLANATION
Protects the integrity of the product	• Contains the product (especially useful for liquids and hazardous materials). • Controls climate (moisture, temperature, light). • Provides a barrier to oxygen. • Protects the product from contaminants. • Assists in transport throughout the packaging supply chain; from manufacturer to end consumer. • Protects the product from damage, reducing wastage. • Extends product life.
Provides information	• Nutritional information. • Instructions for use of the product. • Guidelines for portion control. • Country of origin labels. • Handling and safety information. • Disposal labels. • Bar codes. • Best before/use by dates. • Size and volume information. • Storage instructions. • Ingredients, including potential allergens.
Branding	• Helps sell the product. • Promotes brand recognition – familiar and trusted for consumers. • Enables seasonal marketing. • Supports relevant imagery. • Promotes logos. • Promotes product names.

Packaging protects the integrity of the product

The journey from manufacture to delivery of a product is typically long and may involve international travel. Packaging plays a crucial role in ensuring products remain safe and functional as they move throughout the supply chain.

For example, fresh produce is commonly contained in plastic, reducing its exposure to oxygen, water and contaminants, thus extending its shelf-life. This ensures the resources used in agricultural production, such as water, land and nutrients, are not wasted through the contamination or spoilage of fresh produce before the point of sale.

For manufactured products such as heavy electronics, including televisions, expanded polystyrene is often used to protect the product. As electronics are fragile, and a wealth of resources are used in their manufacture, it is important to protect them from any damage that may occur in transit. Damage to products can result in significant preventable waste, which can be avoided with appropriate packaging protection.

Packaging provides information

There are specific ways to store, use and consume different products, as well as regulations that direct what product information must be displayed and how it is presented, Packaging enables the required information to be directly and properly displayed to consumers, avoiding reliance on other communication channels.

This information may be very important, such as lists of potential allergens contained within a product. Allergen labelling is mandatory in Australia and protects those with allergies from potential adverse reactions to ingredients within products[5].

Packaging can also provide important handling and storage information, such as directing consumer to handle a product with care, to store products within specific temperature ranges or to alert consumers to potentially hazardous material such as fuels, chemicals and medications.

Branding

Packaging enables companies to display their brand to consumers. Consumers may be more likely to purchase products with a strong and trusted brand name. Packaging provides an opportunity for brands to identify themselves through colours, tag-lines and logos that consumers recognise and respond to. On pack messaging/branding can also be used for seasonal advertising, such as promoting a limited edition series, special deals and the creation of collections.

[5] *Food Standards Australia & New Zealand (2019), Allergen Labelling, available at: http://www.foodstandards.gov.au/consumer/foodallergies/Pages/Allergen-labelling.aspx*

How can we make packaging more sustainable?

Consider the waste hierarchy

When packaging is developed, its potential end-of-life outcomes should be considered. The waste hierarchy (Figure 4) aims to optimise materials and waste management. This clear guide helps retain materials within a circular economy by considering their best possible end-of-life applications and the number of potential future life cycles. As a result, the waste hierarchy helps minimise material losses and reduces pressure on finite virgin materials[6].

The avoidance or reduction of materials used achieves the highest value, followed by reuse, material recycling, organics recycling and energy recovery. As a general rule, material recycling that keeps materials at their highest value for as long as possible is preferable to organics recycling. The waste hierarchy can also deliver economic benefits to businesses, by enabling them to investigate reductions in packaging, and resulting savings, and reuse opportunities.

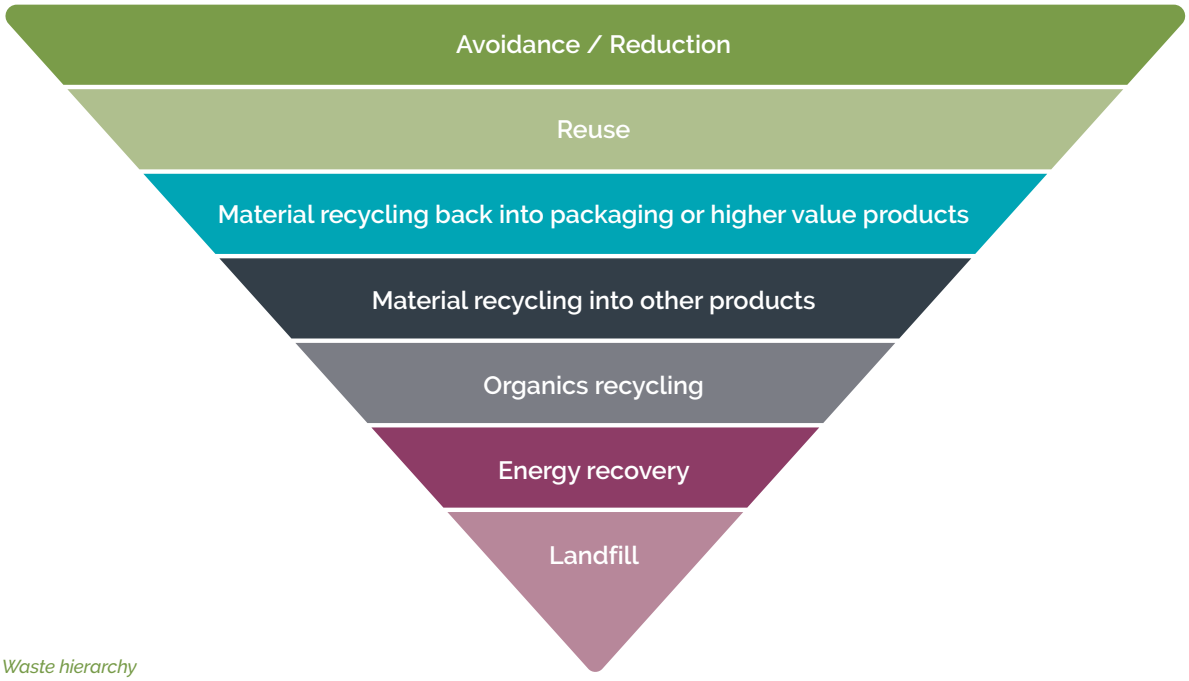

Figure 4: *Waste hierarchy*

Review packaging against the Sustainable Packaging Guidelines (SPGs)

The *Sustainable Packaging Guidelines* (SPGs) assist APCO Members to review and optimise packaging, to use resources more efficiently and to reduce their environmental impact. The SPGs provide 10 Sustainable Packaging Principles (the Principles) which can be used to guide the review of existing and new packaging to identify opportunities for improvement. The Principles include:

1. Design for recovery
2. Optimise material efficiency
3. Design to reduce product waste
4. Eliminate hazardous materials
5. Use recycled materials
6. Use renewable materials
7. Design to minimise litter
8. Design for transport efficiency
9. Design for accessibility
10. Provide consumer information on sustainability

Track progress using APCO's Annual Reporting Tool

APCO's Annual Reporting Tool allows Members to record their progress against APCO's Packaging Sustainability Framework in their Annual Reports. The Reporting Tool provides instant feedback on performance and recommendations for next steps, and allows APCO Members to track progress. Members can also compare their performance with

[6] *APCO (2019)*

fellow APCO Members and commit to next steps through the Action Plan function. APCO Members report on the outcomes of their reviews of packaging against the SPGs through their APCO Annual Reports each year.

Assess recyclability through the Packaging Recyclability Evaluation Portal (PREP)

One of the tools available to APCO Members is *PREP*. PREP provides a way for brand owners, manufacturers and designers to assess items of packaging and to reliably establish whether they are 'recyclable' through kerbside collections in Australia and New Zealand. PREP takes into account the geographic availability of collection services for each item assessed as well as how the item will behave at the Materials Recovery Facility (MRF) and in subsequent processing facilities such as paper mills and aluminium smelters. PREP can be used when assessing and designing packaging for the recycling stage of the waste hierarchy, and is a useful resource when reviewing packaging against the first Principle of the SPGs - Design for Recovery.

Label for recovery

It is important to label packaging with the most suitable end-of-life recovery pathway/s. This informs consumers of how to properly dispose of packaging, helps reduce the loss of materials and contamination at the MRFs, and supports litter reduction.
APCO Members can clarify and standardise labelling using the *Australasian Recycling Label* (ARL) for consumer facing packaging. The ARL (as shown in Figure 5) is an evidence-based system that provides clear and consistent on-pack recycling information to inform consumers of the correct disposal methods. After assessing all packaging components using PREP and establishing the recycling or disposal options for the components, the ARL label clearly directs consumers to the correct stream, whether Recyclable at kerbside, Conditionally Recyclable through an alternative destination (such as Store Drop Off for soft plastics recovery through the REDcycle program) or Not Recyclable (general waste bin). Use of the ARL on-pack aligns with the tenth Principle of the SPGs - Provide consumer information on sustainability.

Figure 5: *Sample of the ARL on-pack.*

Further Information

APCO has a wide range of additional resources to help inform and inspire businesses and organisations seeking to improve their packaging sustainability. APCO's case studies enable Members to understand the opportunities and potential hurdles on the sustainable packaging journey through the eyes of their peers, often providing useful industry specific insights and ideas. Panel discussions enable Members to share their experiences, opinions and progress and clear user guides and templates are available to assist APCO Members at every stage.

Further information can be found via the APCO website.

www.packagingcovenant.org.au

To contact APCO please visit our website
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