Version 3 - Updated October 2020

SUSTAINABLE PACKAGING GUIDELINES

SPGs

AUSTRALIAN PACKAGING COVENANT ORGANISATION

Contents

Introduction

SPGs overview

The Sustainable Packaging Guidelines (SPGs) are a central part of the co-regulatory framework established by the *National Environment Protection (Used Packaging Materials) Measure 2011* (the NEPM) and the *Australian Packaging Covenant* (the Covenant). The NEPM and the Covenant state that the SPGs are to assist the design and manufacture of packaging that meets the sometimes conflicting demands of the market, consumer protection and the environment.

This document establishes the 10 Sustainable Packaging Principles (the Principles) that make up the SPGs (pages 7 to 16):

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; and**
10. **Provide consumer information on sustainability.**

This document also includes an implementation guide (pages 17 to 25) to help Members of the Australian Packaging Covenant Organisation (APCO) to successfully integrate these Principles within their business through design and procurement practices.

Purpose

The purpose of this guide is to assist APCO Members to integrate the Principles into the right business areas, to achieve the optimal outcomes for packaging functionality, and to collectively work to meet Australia's 2025 National Packaging Targets:

- **100% of all Australia's packaging** will be reusable, recyclable or compostable by 2025 or earlier;
- **70% of Australia's plastic packaging** will be recycled or composted by 2025;
- **50% average recycled content** will be included across all packaging by 2025; and
- **Problematic and unnecessary single-use** plastic packaging will be phased out through design, innovation or introduction of alternatives.

The highest priority Principles are those that support the achievement of the four targets, i.e. design for recovery, design for efficiency, using recycled materials and design to minimise litter (Figure 1).

100% of all Australia's packaging
will be reusable, recyclable or compostable

PRINCIPLE 1: Design for recovery
(reuse, material recycling or organics recycling)

70% of Australia's plastic packaging
will be recycled or composted

PRINCIPLE 1: Design for recovery
(reuse, material recycling or organics recycling)

50% average recycled content
will be included across all packaging

PRINCIPLE 5: Use recycled materials

Problematic and unnecessary single-use plastic
packaging will be phased out through design, innovation or introduction of alternatives.

PRINCIPLE 2: Optimise material efficiency
PRINCIPLE 7: Design to minimise litter

Figure 1: *Principles that are most closely related to the 2025 National Packaging Targets*

What is sustainable packaging?

The primary function of packaging is to contain and protect products from the point of manufacture, through the supply chain to the retail store or end user, to attract people to buy a product to achieve more sales, and to provide product information. 'Sustainable packaging' is packaging that performs this primary function but also has lower environmental impact compared to existing or conventional packaging.

Sometimes achieving the lowest possible environmental impact can be challenging, particularly when balancing various environmental criteria with other functional and commercial considerations.

Business benefits

By integrating the SPGs into core business activities such as design and procurement, organisations may achieve a range of benefits:

- Improved reputation and market competitiveness by meeting customer or consumer expectations for responsible packaging.
- Cost savings from more efficient packaging and transport logistics.
- Avoiding negative publicity associated with packaging that is perceived to be ecologically damaging.

For APCO Members

More information and case studies are available on the APCO website, including *The business case for packaging sustainability: drivers, benefits and strategies.*

Pathway to implementation

The implementation guide (pages 17 - 25) will help APCO Members to successfully integrate these Principles into design and procurement. It proposes an implementation pathway for organisations that may not have the resources to address all of the Principles immediately. Larger and more influential organisations in the supply chain are expected to address all ten Principles, while smaller organisations may wish to start with the highest priorities under the National Packaging Targets (see Figure 2).

Level 1:
Getting started (new Members)

Review all current packaging against the **Design for recovery** Principle and identify any opportunities for improvement. Establish a robust process to review any new packaging and record the outcomes.

Level 2: Good progress (Small organisations - annual turnover less than $50 million)

In addition, review all packaging against the following Principles: **Use recycled materials**, **Use renewable materials**, **Eliminate hazardous materials**, **Optimise material efficiency**, **Design to minimise litter** and **Design to reduce product waste**. Identify any opportunities for improvement and record the outcomes.

Level 3: Advanced (Medium sized organisations - annual turnover between $50 million and $750 million)

In addition, review all packaging against the three remaining Principles: **Design for transport efficiency**, **Design for accessibility** and **Provide consumer information**. Identify any opportunities for improvement and record the outcomes.

Level 4: Leading (Large organisations - annual turnover greater than $750 million)

Ensure that packaging has been reviewed against all 10 Principles and has been optimised. Keep records of all packaging reviews including evidence that packaging has been optimised.

Level 5:
Beyond best practice

Develop a strategy to phase out any packaging that is inconsistent with the 10 Principles. Look for opportunities to use more sustainable materials and reduce or reuse packaging.

Figure 2: *A progressive approach to implementation*

Regulatory obligations

Packaging design is a critical element in meeting Signatory obligations under the Covenant. The Covenant states that in applying the SPGs, the aim for Signatories is to reduce packaging waste at the design stage by minimising materials used, optimising recyclability or reuse and reducing the potential for fugitive packaging.

The Covenant is supported by state and territory government regulations that implement the *National Environment Protection (Used Packaging Materials) Measure 2011*. This places additional obligations on non-compliant Signatories.

Future updates

The Principles will be updated as required in response to any relevant changes. APCO will consult with Members on any proposed changes. Any significant changes require the approval of Australian governments through the Government Officials Group. Government officials will be kept informed about any minor changes made, such as updating resource lists and web links.

Other resources

The SPGs are supported by a range of other tools and resources which are shown over the page.

Important terms are linked to definitions at the end of this document.

Record of updates

June 2020

In March 2020, the 2025 National Packaging Target for recycled content was raised from an average of 30% to an average of 50% recycled content across all packaging. This document was amended to reflect this change.

October 2020

In October 2020, APCO's website was updated and all resource links were altered in the process. All APCO related URLs were updated within the document.

Overview: obligations and resources of the SPGs

Australian Packaging Covenant — Outlines minimum obligations for Signatories to the Covenant/APCO Members

Packaging Sustainability Framework — A series of 13 criteria for a packaging sustainability strategy

National Environment Protection (Used Packaging Materials) Measure 2011

State and Territory Government regulations — Outlines minimum obligations for organisations who are not Signatories to the Covenant/APCO Members

Design related criteria	Support Tools
Criteria 1.1 Packaging Sustainability Strategy Requires Members to have a packaging sustainability strategy that includes a commitment to use of the SPGs to evaluate new and existing packaging.	The SPGs including the 10 Principles and implementation guide.
Criteria 2.1 Packaging Design & Procurement Requires Members to measure and monitor how many of their SKUs have been reviewed against the SPGs.	The SPGs checklist assists Members to record the outcomes of each review.
Criteria 2.2 Packaging Materials Efficiency Requires Members to measure and monitor how many of their SKUs have improved or optimised material weight efficiency.	
Criteria 2.3 Recycled & Renewable Materials Requires Members to measure and monitor how many of their SKUs have recycled or renewable materials.	The Packaging Recyclability Evaluation Portal (PREP) identifies packaging as recyclable or non-recyclable through kerbside in Australia and New Zealand.
Criteria 2.4 Post-consumer Recovery Requires Members to measure and monitor how many of their SKUs can be recovered.	APCO Quickstarts provide specific information for particular materials (e.g. glass and PET)
Criteria 2.5 Consumer Labelling Requires Members to measure and monitor how many of their SKUs have consumer labelling on-pack.	The Australasian Recycling Label (ARL) based on PREP assessments.

Annual Reporting Tool — Enables Members to submit an APCO Annual Report and APCO Action Plan based on the Framework criteria

Figure 3: *Links between the Covenant, the Packaging Sustainability Framework and the SPGs*

Sustainable Packaging Principles

The Sustainable Packaging Principles ('the Principles') can be used to guide the review of existing and new packaging to identify opportunities for improvement.

The 10 Principles to be considered in the design and procurement of packaging to improve sustainability are:

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; and**
10. **Provide consumer information on sustainability.**

The high-level intent of adopting the Principles is relatively straight forward (Figure 4), i.e. to:

- Design and procure more sustainable packaging formats; and
- Provide consumer information.

Each of the Principles are explained in more detail below, including:

- The primary aim;
- Why it is important;
- Things to consider when assessing packaging;
- Resources that could assist; and
- Links to APCO's Packaging Sustainability Framework criteria, which can be found within APCO's Annual Reporting Tool (the tool within which APCO Members complete their APCO Annual Report by the 31 March each year).

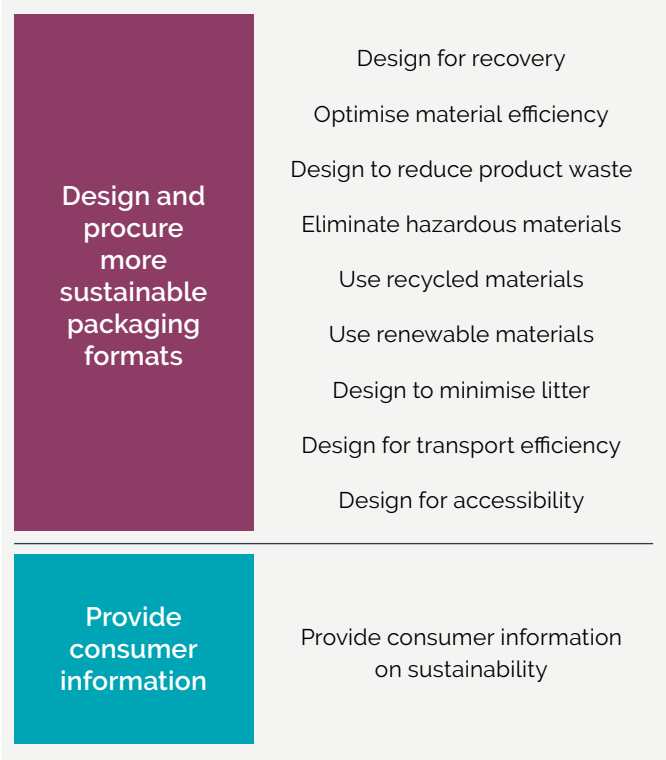

Figure 4: *Drivers for Sustainable Packaging Principles*

1. Design for recovery

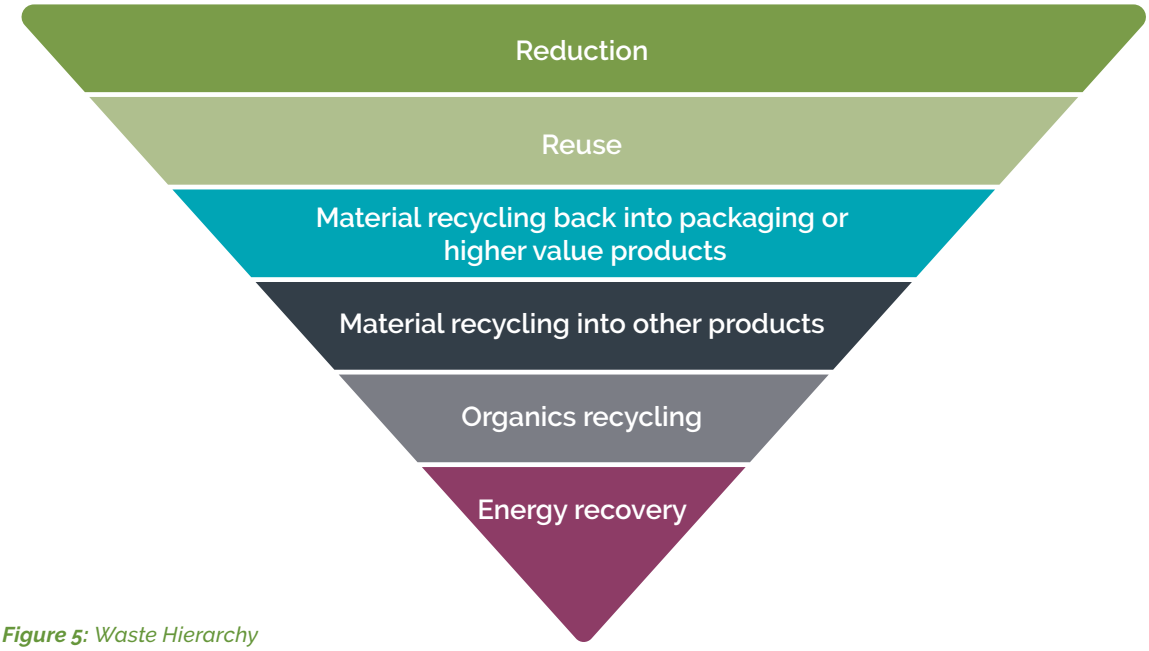

Figure 5: *Waste Hierarchy*

Recovery pathways

The aim

Environment Ministers have endorsed a national target of 100% of packaging designed to be reusable, recyclable or compostable by 2025. Reuse can extend the life of packaging, but it also needs to have a recovery solution (e.g. recycling or composting) at end-of-life.

Recoverability: Recoverability of packaging refers to the availability of systems for reuse, recycling, composting or energy recovery.

The aim is to achieve the **highest potential environmental value** by following the waste hierarchy (as shown in Figure 5). Avoidance or reduction generally achieves the highest value, followed by reuse, material recycling and energy recovery. The relative position of composting (organics recycling) in the waste hierarchy depends on the product application and available recovery systems.

Why this is important

The quality of recycling and the use of recycled materials is essential in a circular economy, which aims to keep materials in use for as long as possible[1]. This maximises the value retained in the economy, the range of possible applications for which the material can be used, and the number of possible future life cycles. As a result, it minimises material losses and the need to generate more virgin materials.

Choosing the most appropriate recovery pathway

Decisions about the most appropriate recovery pathway for your packaging, for example whether it should be designed to be reusable, recyclable or compostable, will depend on a range of factors. These could include the type of product, consumer attitudes and behaviours (e.g. willingness to reuse, use of home composting systems), availability of an existing recycling, organics collection or composting system, functionality of alternative materials, costs, and alignment with your corporate sustainability strategy.

If you are considering reuse or composting, check this resource first: *Quickstart Guide to Design for Recovery: Reuse, Recycling or Composting.*

Minimum requirements under this Principle

All Members are required to review all of their packaging against this Principle and ensure that they have a strategy to meet the national target for 100% of packaging to be reusable, recyclable or compostable.

Links to the Packaging Sustainability Framework criteria

Outcomes for this Principle should be reported in the Annual Reporting Tool under Criteria 1.2 – Closed-loop Collaboration and 2.4 – Post-consumer Recovery.

[1] *Ellen Macarthur Foundation (2017) What is the circular economy?, https://www.ellenmacarthurfoundation.org/circular-economy/what-is-the-circular-economy*

Design for reuse

The aim

The aim of this recovery pathway is to extend the life of packaging through multiple uses prior to recycling. **Reuse** should only be considered if it is likely to achieve a net environmental benefit, considering any additional material requirements, transport for return trips and any additional activities (e.g. cleaning).

> **Reusable:** A characteristic of packaging that has been conceived and designed to accomplish within its lifecycle a certain number of trips or uses for the same purpose for which it was conceived.

Why this is important

In some applications, reuse will achieve the highest net environmental and economic value outcome because it retains the full value of packaging as a manufactured product for a longer period, rather than breaking it down into its material or energy value.

Things to consider

1. Would most consumers/customers return the packaging for another use, or could you establish a collection system?
2. Could you design the packaging to enable multiple use cycles (e.g. so that it is sufficiently durable, safe, hygienic etc.)?
3. How many average use cycles could you achieve and are these sufficient to achieve a net environmental benefit?

Design for material recycling

The aim

The aim of this recovery pathway is to optimise recycling through mechanical processes (organics recycling is considered in the next section). **Material recycling** can be achieved by using recyclable materials, by avoiding materials or components that may contaminate the recycling process, and by informing consumers about appropriate options for recovery prior to responsible disposal. To contribute to a circular economy, packaging is to be recycled into applications having the same level of quality when possible.

Why this is important

Material recycling has many benefits. It reduces the environmental impacts and costs of disposal, it helps to conserve non-renewable resources, and it provides raw materials for manufacturing that have a lower environmental impact and are often more cost-effective than virgin materials.

Things to consider

1. Is the primary packaging recyclable through kerbside collection in Australia according to the **Packaging Recyclability Evaluation Portal (PREP)?**
2. Did the PREP report identify any issues that affect recyclability?
3. Are there any opportunities to change the design of the primary package to improve recyclability? Check the PREP report.
4. If the packaging is not recyclable, could you collaborate with others to establish or improve a collection and recycling service?
5. Does the package include the **Australasian Recycling Label (ARL)?**
6. Do you need to provide any specific instructions to consumers to improve recyclability e.g. flatten, clean etc.?
   Check the PREP report.
7. Is the **secondary package** recyclable?
8. Are there any opportunities to change the design of the **distribution package** to improve recyclability?
9. Considering your previous answers, do you think that the recyclability of the packaging system has been **optimised?**
10. If yes, what is the **critical area** that prevents any further improvement in material recycling? Examples could include: product protection, packaging manufacturing processes, packing/filling processes, logistics, product presentation/marketing, user/consumer acceptance, information, safety, legislation etc.

Other resources

- PREP Design (2019), *Packaging Recyclability Evaluation Portal*
- APCO (2019), *Quickstart Guide to Design for Recovery: Reuse, Recycling or Composting*
- APCO (2019), *Quickstart Guide to Designing for Recyclability - PET Packaging*
- APCO (2019), *Quickstart Guide to Designing for Recyclability - Glass Packaging*

Links to the Packaging Sustainability Framework criteria

Criteria 2.4 – Post-consumer Recovery.

Design for organics recycling

The aim

The aim of this recovery pathway is to optimise the ability of **compostable packaging** to be recycled through composting or another **organics recycling** process. This can be achieved by using a compostable material, by avoiding materials or components that may contaminate the composting process, and by informing consumers about appropriate recovery and disposal.

Organics Recycling: The treatment of separately collected organics waste by anaerobic digestion, composting or vermiculture.

Why this is important

Organics recycling provides a potential recovery pathway for packaging that is not recyclable through material recycling systems, or that might become food-contaminated. It may also assist in increasing the recovery of food waste and other organic nutrients.

Things to consider

1. Is composting the best reprocessing technology to divert your packaging from landfill?
   Check the *Quickstart Guide to Design for Recovery: Reuse, Recycling or Composting*
2. If yes, is the packaging **certified** as suitable for composting and other microbial treatment according to AS 4736 or AS 5810 (see resources below)?
   This will depend on the material type as well as shape, thickness, additives, coatings etc.
3. Is the consumer likely to have convenient access to a service that will collect and compost the packaging?
4. If not, can you work with others to establish a collection and composting service to ensure that the packaging is actually composted?
5. Are you providing consumers with information on how to correctly dispose of the packaging?

Other resources

- APCO (2019), *Quickstart Guide to Design for Recovery: Reuse, Recycling or Composting*
- ABA (2019), *Australasian Bioplastics Association*
- Standards Australia (2006), Australian Standard 4736-2006 Biodegradable plastics – Biodegradable plastics suitable for composting and other microbial treatment
- Standards Australia (2010), Australian Standard AS 5810-2010 Biodegradable plastics—Biodegradable plastics suitable for home composting.

2. Optimise material efficiency

The aim

Material efficiency aims to reduce material consumption and associated environmental impacts in the packaging lifecycle by optimising the volume and weight of packaging.

Optimised (material efficiency): No further reductions in packaging weight or volume are possible at the present time.

Why this is important

Reducing the amount of material generally saves money and reduces environmental impacts throughout the packaging lifecycle.

Environment Ministers have endorsed a national target of phasing out problematic and unnecessary single-use plastic packaging by 2025.

Things to consider

1. Could any component of packaging be eliminated, i.e. is anything unnecessary?
2. Could you use a thinner or lighter material?
3. Could you reduce the size (volume) of the package?
4. Would these changes have any impact on functionality, product protection, safety, consumer acceptability, recovery potential etc.?
   Sometimes material efficiency involves trade-offs with other requirements, but it is important to ensure that efficiency improvements do not increase product damage or waste in the supply chain. Similarly, it might be more efficient to package a product in soft plastic rather than a hard-plastic (lighter weight to transport), but soft plastic is less readily recyclable.
5. Considering your previous answers, do you think the packaging system has been optimised?

6. If yes, what is the critical area that prevents any further improvement in material efficiency? Examples could include: product protection, packaging manufacturing processes, packing/filling processes, logistics, product presentation/marketing, user/consumer acceptance, information, safety, legislation etc.

Minimum requirements under this Principle

All larger Members are required to review all of their packaging against this Principle.

Links to the Packaging Sustainability Framework criteria

Outcomes should be reported in the Annual Reporting Tool under Criteria 2.2 – Packaging Materials Efficiency.

3. Design to reduce product waste

The aim

The aim is to design packaging to eliminate or reduce avoidable product waste. This includes information on the label to assist consumers to reduce waste.

Why this is important

Packaging design plays a critical role in ensuring that products reach their final destination without any damage or wastage; this is particularly important in the food sector. Each year Australians throw away around 5.3 million tonnes of food that is intended for human consumption[2]. More sustainable packaging design can help to reduce food waste that occurs in the supply chain, at retail or at the point of consumption. Design also plays a critical role in ensuring that consumers can fully dispense the product from its packaging, to both deliver better value to consumers and reduce waste.

Things to consider

1. Do you know how much of your product is damaged and wasted in the supply chain, e.g. due to inadequate packaging, storage or handling?
2. Are there any opportunities to improve packaging to reduce waste in the supply chain?
3. Do you know how much of your product (particularly food) is wasted by consumers after purchase?
4. Are there any opportunities to improve packaging to reduce the amount of product wasted by consumers? For example, does the design of the package allow the product to be completely dispensed? Could the package be designed to dispense a more exact dosage (e.g. for soaps, detergents) or a more appropriate serving size (e.g. single service of meat or fish)?

Other resources

- RMIT University (2013), *The role of packaging in minimising food waste in the supply chain of the future,* Report to CHEP Australia
- RMIT University (2014), *Districts, lifestyles and avoiding food waste*, Report to Banyule City Council

Minimum requirements under this Principle

All larger Members are required to review all of their packaging against this Principle.

Links to the Packaging Sustainability Framework criteria

Where relevant, the outcomes may be reported in the Annual Reporting Tool under Criteria 1.3 – Consumer Engagement.

[2] *Australian Government (2017) National food waste strategy* ***http://www.environment.gov.au/system/files/pages/25e-36a8c-3a9c-487c-a9cb-66ec15ba61d0/files/national-food-waste-strategy.pdf***

4. Eliminate hazardous materials

The aim

The aim is to avoid using hazardous substances that could be toxic to humans or other living organisms. Organisations should consider their common law liabilities, assess packaging for potentially hazardous substances that are likely to pose risk, and endeavour to reduce that risk accordingly.

Why this is important

Hazardous substances include those that are toxic to humans or other living organisms, are flammable, explosive or corrosive, are ozone depleting, or contribute to climate change. Examples often mentioned for packaging include heavy metals (e.g. in some inks and pigments), Bisphenol A (in polycarbonate plastics and the lining of steel cans) and plasticisers (e.g. some phthalates in PVC plastics).

If used at levels that exceed regulatory limits, potentially hazardous substances may pose risks to ecosystems and human health. Avoiding or minimising the use of these substances may reduce the costs associated with disposal of hazardous waste from manufacturing.

Things to consider

1. Does your organisation have a risk management approach to the selection of materials, inks, pigments, coatings, plasticisers and other substances used in packaging or its production processes?
2. Does the production of the packaging utilise any hazardous substances?
3. Does the packaging itself contain any potentially hazardous substances?
4. If yes to either of the two previous questions, could they be eliminated or reduced?
5. Does the packaging meet Australian and /or international standards in relation to hazardous substances?
   For example, the **EU Packaging and Packaging Waste Directive's** Essential Requirements for Packaging specify that the combined weight of heavy metals (mercury, lead, cadmium and hexavalent chromium) in a package or any of its components must not exceed 100 ppm).
6. Is the packaging likely to contain any hazardous product residue at end of life that may contaminate the recycling process? If yes, consider labelling with the ARL for disposal rather than recycling, and work to establish an alternative collection and recycling program.

Other resources

- PackagingLaw.com (2017), *Food Packaging Regulations in Australia and New Zealand*

Minimum requirements under this Principle

All larger Members are required to review their packaging against this Principle.

5. Use recycled materials

The aim

The aim is to optimise the amount of recycled content in packaging, considering technical feasibility, consumer acceptability, regulatory requirements (e.g. food contact/safety) etc.

Recycled content: Is the proportion, by mass, of pre-consumer and post-consumer recycled material in packaging (AS/ISO 14021). 'Pre-consumer' material is material diverted from the waste stream during manufacturing (excluding rework). 'Post-consumer' material is material waste generated by households or by commercial, industrial and institutional facilities. The amount of renewable or recycled material is expressed as a percentage of the quantity of packaging material put onto the market.

Why this is important

Using recycled materials in packaging helps to create sustainable markets for packaging recovered from households and other sources. Recycled materials generally use less energy and water to manufacture, and generates lower greenhouse-gas emissions than virgin materials of the same type. Some recycled materials also offer cost savings.

The Australian Government has endorsed a national target of 50% average recycled content across all packaging by 2025.

Things to consider

1. How much recycled content is in your packaging now (tonnes, %)?
2. Could you incorporate a higher percentage of recycled content?
3. Would higher recycled content have any impact on functionality, product protection, safety, consumer acceptability, efficiency etc.?
4. Considering your previous answers, do you think that recycled content in the **packaging system** has been **optimised?**
5. If yes, what is the **critical area** that prevents any further increase in recycled content?
   Examples could include: product protection, packaging manufacturing processes, packing/filling processes, logistics, product presentation/marketing, user/consumer acceptance, information, safety, legislation etc.
6. Could you incorporate recycled content in any other products that your organisation buys, to help drive end-markets for recycled material?

Minimum requirements under this Principle

All larger Members are required to review their packaging against this Principle.

Links to the Packaging Sustainability Framework criteria

Outcomes for this Principle should be reported in the Annual Reporting Tool under Criteria 2.3 – Recycled and Renewable Materials.

6. Use renewable materials

The aim

The aim is to support a circular economy for packaging by optimising the proportion of materials that are **renewable**. All material selections should be based on sound science and a whole-of-life cycle approach.

Renewable: Material that is composed of biomass from a living source and that can be continually replenished. Renewable materials include paper and cardboard from sustainably grown wood fibre, or a biopolymer from a sustainable source.

Why this is important

Renewable materials such as paper, cardboard and biopolymers reduce demand for non-renewable virgin materials including metals and most plastics. If they are grown using sustainable farming and forestry practices, they are likely to have a lower environmental impact than those generated by the extraction and processing of non-renewable materials.

Things to consider

1. Are any of the materials used in your packaging renewable?
2. If not, is there potential to use a renewable alternative?
3. Is there potential to use renewable materials that

have been certified as being from responsible sources, e.g. by Forest Stewardship Council (FSC) or the Programme for the Endorsement of Forest Certification (PEFC)?
4. Considering your previous answers, do you think that renewable material content in the **packaging system** has been **optimised?**
5. If yes, what is the **critical area** that prevents any further improvement in renewable content? Examples could include: product protection, packaging manufacturing processes, packing/filling processes, logistics, product presentation/marketing, user/consumer acceptance, information, safety, legislation etc.

Other resources

- FSC (2019), Forest Stewardship Council
- PEFC (2019), Programme for the Endorsement of Forest Certification
- ABA (2019), Australasian Bioplastics Association

Minimum requirements under this Principle

All larger Members are required to review their packaging against this Principle.

Links to the Packaging Sustainability Framework criteria

The outcomes should be reported in the Annual Reporting Tool under Criteria 2.3 – Recycled and Renewable Materials. Shifting to FSC or PEFC fibre in collaboration with suppliers could also be considered under Criteria 3.3 – Supply Chain Influence.

7. Design to minimise litter

The aim

The aim is to design any package that tends to be found in the **litter** stream (such as fast food and beverage packaging) to reduce the likelihood of it becoming litter.

> **Litter:** Discarded packaging waste that has been disposed of improperly by accident or deliberately in an open or public place. Littered packaging like plastic wrap, cans and bottles can exist in the environment for long periods of time and cause serious environmental issues in some areas, particularly if it enters waterways and sensitive environmental areas where it has potential to be ingested by animals, birds and marine life.

Why this is important

Litter reduces the visual amenity of public places and is a hazard to wildlife. There is evidence of widespread ecological and human health impacts being caused by plastics in the marine and terrestrial environment, including from littered packaging.

Collecting and disposing of litter by local government imposes a significant cost to the community. Litter is also a significant resource loss of valuable recyclable materials.

Environment Ministers have endorsed a national target of phasing out problematic and unnecessary single-use plastic packaging by 2025.

The Australian Packaging Covenant obligates Signatories to the Covenant/APCO Members to report on 'action that reduces the incidence and impacts of litter'.

Things to consider

1. Do you understand where, when and how your product will be used and by whom?
2. Is the package likely to be consumed away from home and therefore have the propensity to become litter?
3. To what extent is this packaging type represented in the litter stream? Refer to the National Litter Index.
4. How many separate or easily separable components that could end up as litter does the packaging item have (for example, screw cap lids, and peel-off seals)? Can any be reduced or redesigned?
5. Has the package been designed to minimise the number of separate or separable components?
6. Do you provide advice for consumers on the label to encourage appropriate disposal or recovery?
7. What steps have you undertaken to reduce the occurrence of your packaging in the litter stream?
8. Have options been considered for away-from-home recycling as part of an overall littering abatement program?

Other resources

- Keep Australia Beautiful (2018), *National Litter Index*

Minimum requirements under this Principle

All larger Members are required to review all of their packaging against this Principle.

8. Design for transport efficiency

The aim

Packaging should be designed to maximise the efficiency of transport through lightweighting, fully utilising shipping space ('cubing out') and using bulk packaging for distribution including business to business packaging (B2B) where appropriate.

Pallet Utilisation: The percentage of the total available pallet area that is actually occupied by a product.

Why this is important

More efficient **distribution packaging** can result in significant savings in energy, greenhouse gas emissions, water, packaging material and transport costs.

Things to consider

1. Is there any potential to improve pallet utilisation by redesigning the **primary packaging** or distribution packaging?
2. Are you optimising pallet utilisation and truck height? Are there any efficiencies that can be achieved?
3. Consider any trade-offs and how they could be managed, for example soft plastics are lightweight but may be more challenging to recycle.
4. Is there an opportunity to switch to more efficient vehicles, hybrid vehicles or renewable energy sources for your distribution fleet?
5. Could you use back-loading to collect and recycle used packaging from customers as a value adding service?

Minimum requirements under this Principle

All larger Members are required to review all of their packaging against this Principle.

Links to the Packaging Sustainability Framework criteria

Outcomes for this Principle may be reported, where relevant, in the Annual Reporting Tool under Criteria 3.1 – Business-to-Business Packaging.

9. Design for accessibility

The aim

For packaging to be **accessible**, it must be designed to be easy for the consumer to open, have legible labelling, and not compromise safety or quality. Sustainable packaging cannot meet consumers' needs and expectations if it is not accessible.

Accessibility: Relates to the ease of use a consumer experiences when completing tasks. For packaging, this includes factors such as ease of opening and readability of labels. *https://arthritisaustralia.com.au/accessible-design-division/what-is-accessible-design/*

Why this is important

Easy-to-open and functional packaging is a major consumer concern, as well as a health and safety issue. Some sections of the community have difficulty with product labelling and packaging. For a consumer to get full satisfaction from the product, the packaging needs to be functional and useable—this includes the ability to open and close, and with legible labelling (consider font size and print contrast). Packaging that is difficult to open can contribute to food waste, particularly in hospitals and aged care facilities.

Things to consider

1. Has the consumer's ability to access the product within the packaging been adequately considered in the design process? For example, has a consumer specialist analysed the actions required to interact with the product?
2. Have you considered whether the level of information on the packaging ensures the consumer is aware of its contents and how to open the package?
3. Have you considered the demographic of the consumer who will use the product? Are there any limiting factors typically associated with these consumers?
4. Can changes be made to improve the ability of the consumer to use the product without compromising safety, security or quality?
5. To what extent has your organisation ever received any complaints in relation to accessibility of packaging?

6. Could an alternative design be used efficiently to minimise the requirement for tools such as a knife or scissors? The use of tools, knives, and scissors should be avoided.
7. Have easy open features been clearly explained or performance tested by Arthritis Australia?

Other resources

- Arthritis Australia (2017), *Receive a Packaging Accessibility Rating for the health system*
- Arthritis Australia (2018), *Food Packaging Design Accessibility Guidelines*
- Sarah Dawood (2019) *How to make packaging more accessible*, Raconteur, 21 May

Minimum requirements under this Principle

All larger Members are required to review all of their packaging against this Principle.

10. Provide consumer information on environmental sustainability

The aim

The aim is to provide clear information or advice about any claims made about appropriate disposal or environmental attributes of the packaging (e.g. recycled content or sustainable sourcing of materials) on the packaging or packaged product.

Labelling: Can be in the form of a statement, symbol or graphic on a purchased product at any point in the supply chain, but most commonly used at the final point of sale (e.g. retail).

Why this is important

Consumer understanding, awareness and behaviour have a large impact on resource recovery and recycling of used packaging materials.

Environmental labelling on packaging must be consistent with AS/NZS ISO 14021:2016 (Environmental labels and declarations—self-declared environmental claims (type II environmental labelling). Failure to properly adhere to labelling guidelines may raise issues of competition and consumer law.

Things to consider

1. Will any environmental claims be made about the packaging item?
2. Has appropriate information about litter prevention been included on all packaging of products likely to be consumed away from home?
3. What environmental issues have been considered during development of the product's marketing strategy, for example, use of environmental claims, logos and consumer education?
4. If the Australasian Recycling Label is to be used on the packaging, have you identified existing systems that will be able to recycle the packaging? Refer to PREP.
5. If a composting logo is to be used on the packaging, have you identified existing systems that will be able to compost the packaging? Refer to the Australian Standard 4736-2006 – Biodegradable plastics suitable for composting and other microbial treatment, and Australian Standard AS 5810-2010 – Biodegradable plastics - Biodegradable plastics suitable for home composting.
6. If a recycled content claim is made, is the minimum level of recycled content specified in accordance with AS/NZS 14021?

Other resources

- Australian Competition and Consumer Commission (2011), *Green marketing and the Australian Consumer Law*
- Standards Australia (2000), AS/NZS ISO 14021-2000 Environmental labels and declarations
- Self-declared environmental claims (Type II environmental labelling)
- APCO (2019), *Quickstart Guide to Labelling for Recovery*

Minimum requirements under this Principle

All larger Members are required to review all of their packaging against this Principle.

Links to the Packaging Sustainability Framework criteria

Outcomes should be reported in the Annual Reporting Tool under Criteria 1.3 – Consumer Engagement or 2.5 – Consumer Labelling where relevant.

Implementing the Sustainable Packaging Principles

Successful integration of the Principles will not be achieved via a stand-alone checklist. Long-term business integration requires the Principles to be embedded into relevant business systems where they are given priority and weighting in conjunction with other packaging considerations.

How you achieve this can be summarised in four overarching goals (as shown in Figure 6) for the design and procurement of packaging to improve its sustainability.

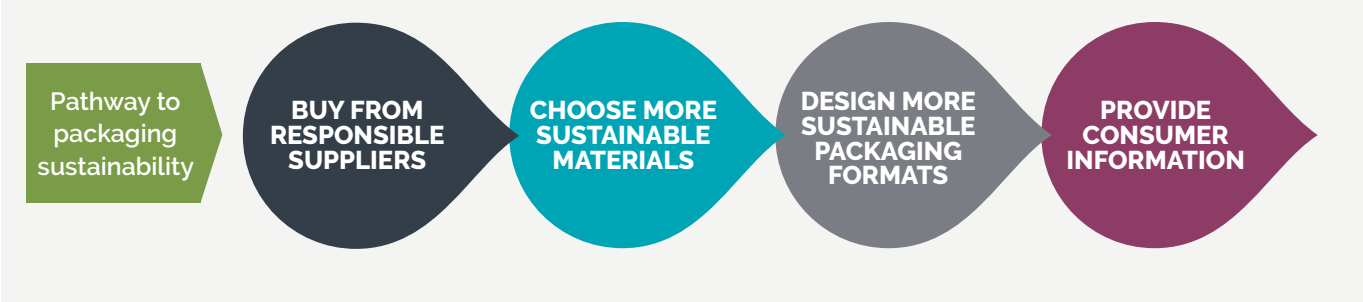

Figure 6: *Goals for more sustainable packaging procurement and design*

Figure 7: *SPGs implementation cycle*

Whilst the pathway is generally the same, how you go about implementing the Principles will vary subject to your products, position in the supply chain and your critical areas for packaging functionality.

This guide provides practical steps and tips to help you develop and implement a packaging sustainability strategy through a continuous improvement process (Figure 7).

This document is intended for guidance only. The relevance of recommended actions will vary, subject to your organisation's structure and priorities, as well as where your organisation is on its packaging sustainability journey.

Some actions are likely to occur concurrently as you plan, learn, engage your business, change your position and improve.

STEP 1. Understand your position and opportunities

If you are just getting started, consider where you are now and how best to proceed.

Review your regulatory obligations

Organisations that do not comply with their obligations under the Australian Packaging Covenant and the NEPM may be subject to State and Territory regulations (see the list of regulations on page 32).

Signatories to the Covenant have obligations to:

- Implement design and procurement processes that drive sustainable design of packaging, consistent with the SPGs.
- Apply the SPGs to all new packaging.
- Commit to reviewing all existing consumer packaging within a reasonable timeframe in accordance with the SPGs.
- Report on the actions they have taken to implement the SPGs, including reporting on the outcomes of self-assessment, leading to:
  - the design of packaging that is more resource efficient and more recyclable and an increase in the recovery and recycling of used packaging from households and away-from-home sources; and
  - action that reduces the incidence and impacts of litter.

Review your current commitment

What does sustainable packaging mean for your organisation? Have you already started the journey? Is it even on your organisation's radar? Some things to consider include:

- Is there awareness within your organisation about the need to adopt the SPGs?
- Is there an existing commitment to use more sustainable packaging, for example a packaging sustainability policy?
- Does your organisation have an existing process equivalent to the SPGs?
- Are sustainability criteria factored into new packaging decisions?
- Are sustainability criteria included in procurement policies or supplier guidelines?
- Is there an existing packaging sustainability strategy or plan?

Define your critical areas for packaging functionality

What are your major packaging priorities?

Packaging must be fit for purpose and often there are non-negotiable requirements for product protection, manufacturing and filling processes, logistics, user and consumer acceptance, product safety, or in some instances, regulatory compliance.

Develop a summary of any critical areas of packaging functionality relevant to your products. This will help you to start thinking about which of the Principles are most relevant to your products, or where you might experience early challenges.

Assess the factors that you can influence

Do you have full control of packaging decisions for the products you sell?

It is recognised that some companies, like small importers, may have limited ability to influence the design of the packaging for the products they sell. You will still, however, need to demonstrate that your packaging has been reviewed using the questions in the *Sustainable Packaging Checklist*, and that you have taken all reasonable efforts to work with your suppliers and other stakeholders to improve sustainability outcomes.

Consider what factors you can influence and who you will need to engage to review packaging composition and consider improvement options.

Take a walk through your supply chain

Do you understand how packaging is used and disposed at all stages of your supply chain and how it looks when it reaches the end user and what happens when in the resource recovery system?

Take a walk through your packaging supply chain from the packaging manufacturer or importer through to filling, distribution, warehousing, retail and resource recovery. Make observations and ask questions to consider:

- What type of business-to-business (B2B) packaging is being used? Does it seem excessive or is additional functionality required? Are there opportunities for efficiencies?
- How is B2B packaging being disposed? Is it reused, recycled or composted?
- How are your suppliers handling your product, and

what happens in the retail space?
- Has any packaging or product damage occurred by the time your product makes it to the store?
- Are there opportunities to work with your suppliers or customers to reduce B2B packaging or reduce product damage (if relevant)?
- How is that packaging being managed and collected at the end stage?
- How can your design decisions help to ensure that your packaging is collected and has a sustainable second stage?

Build the business case for packaging sustainability

Based on this research, build the business case for packaging sustainability and communicate it to key decision makers in the organisation. The business case for your business may include a mix of regulatory compliance, opportunities to improve your competitiveness by meeting demand from consumers or enhancing your reputation, or cost savings from more efficient packaging.

Map where packaging decisions are made

Understanding how existing systems work to guide packaging decisions is necessary to consider how new criteria can be integrated. What processes are in place to guide packaging decisions now? Who will you need to get involved to consider changes?

Review APCO documents

APCO has updated the SPGs to reduce the number of principles and to provide more detailed information.

This includes why they are important for APCO Members, and to collectively help achieve the 2025 National Packaging Targets, and how they link to APCO Annual Reporting Tool.

Review the Principles and supporting documents to boost your knowledge about sustainable packaging (see Supporting Resources).

STEP 2. Work with the right people

Implementing the SPGs will require a cross-functional approach involving a range of company representatives with relevant skills, knowledge and responsibilities. External engagement with packaging suppliers and distribution companies will also be required. In some instances, companies also engage the services of consultants or contractors if specialist knowledge is required for certain tasks.

Here are a few things to consider.

Understand who can influence packaging decisions

Consider who in the business makes packaging decisions or influences final packaging outcomes. This will vary based on the size and structure of your organisation. Consider how to engage and motivate your colleagues internally for different criteria, for example:
- CEO: understand and confirm corporate commitments and targets.
- Procurement: choose more sustainable packaging materials and buy from responsible suppliers.
- Marketing and brand: design more sustainable packaging formats, primary decisions about the packaging.
- Packaging technologist/engineering: consider technical design requirements, manufacturing capabilities for new packaging formats.
- Product specialist/sales: critical design criteria, understand customers' packaging requirements including product usability.
- Environment manager: align with other environmental initiatives, provide guidance on managing trade-offs.
- Logistics manager: consider B2B packaging requirements and transport efficiencies.
- Operations: influence packaging efficiency.
- Warehouse or supply chain: guidance on storage and handling requirements and packaging disposal when consignments are unpacked and routed to customers.
- Senior manager: help facilitate business changes.
- Packaging supplier/manufacturer: packaging information, new opportunities and innovation.

Develop a statement of commitment

Is your organisation committed to adopting more sustainable packaging? Do you have a commitment statement or policy?

What recruiting colleagues to participate in sustainable packaging initiatives you will need to

show relevance to your business and company commitment. Your overarching commitment to the Australian Packaging Covenant is supported by your CEO or equivalent, so having a documented sustainable packaging commitment and brief APCO overview can help to encourage colleagues to participate in an initial conversation. Have the commitment signed by your CEO or equivalent.

Links to the Packaging Sustainability Framework, Criteria 1.1 – Packaging Sustainability Strategy.

Organise a planning meeting

Convene a planning meeting to develop your approach. Whilst you will likely need to have a big team of people involved to consider sustainable packaging options, it is unlikely you will need to have everyone involved in everything. It is ideal, however, to get everyone together for an initial briefing and planning session to share knowledge, start planning your approach and to consider areas of responsibility.

Consider how to best include the relevant expertise you need to succeed whilst being mindful of everyone's time. You might consider a primary management group and then sub-group/s to engage particular areas of expertise as necessary.

Collaboration

What steps do you need to take in the organisation to collaborate with different departments on packaging sustainability? Do some people just need to be aware of your commitments or do they need to make decisions about how best to improve? How often do you need to involve or inform different people? If many people need to be involved or can offer good insight but are time poor, consider the best approach to establish a collaborative approach that works for your organisation.

Assign responsibilities

It is important that you do not end up with a team that is 'all care, no responsibility'. Who will sign off that things get done? Who is responsible and who is accountable?

Document the composition of your sustainable packaging team and the rationale behind the involvement of each position. Over time, build responsibility into position descriptions.

Engage suppliers

Engage your suppliers to build rapport and capacity to achieve packaging sustainability goals. Suppliers can assist with providing initial packaging information, offering new packaging opportunities and in some instances working with you on new packaging innovation.

New opportunities are often influenced by packaging suppliers.

- Review your current suppliers:
  - Who are they? Are there many?
  - Do they have a sustainability commitment?
  - If local, are they an APCO Member?
- Prepare correspondence to introduce your suppliers to the Australian Packaging Covenant as well as the SPGs.
- Request information for existing packaging.
- Refer to the relevant APCO Quickstarts for guidance and share with your suppliers.
- Seek information on any new packaging innovation which meets the intent of the SPGs.

Link to the Packaging Sustainability Framework, Criteria 3.3 – Supply Chain Influence.

STEP 3. Review existing packaging

Complete a review of your existing packaging using your Sustainable Packaging Checklist to better understand the environmental impact of your existing packaging and potential opportunities for improvement. This will establish your baseline position and allow you to build new actions and targets into your APCO Action Plan. Figure 8 outlines the steps required.

Group packaging types

A packaging review means considering and applying the Principles to your packaging type, category or stock-keeping unit (SKU). It is important to develop the most appropriate method to review your packaging. Consider your product range and decide if there are common features that can be considered jointly. For example, they might all come from the same manufacturer, or might all be similar products but supplied from different manufacturers.

Document your packaging range by logical product or packaging material groupings—such as 'dry goods in laminate bags', 'carbonated drinks in PET bottles', 'dry goods in blister packs with cardboard backing' and other categories. The range might also be assessed by SKU if you have a small number of these.

Compile a final list of the different packaging formats for each logical grouping or review stage. Identify people within your organisation (or outside as appropriate) who have the range of relevant skills to conduct the reviews.

Amend the Sustainable Packaging Checklist for your organisation

The Checklist is designed to be adapted, allowing you to select the Principles that are most appropriate to your products and market.

The Checklist may be further expanded to include any additional criteria relevant to your organisation, such as safety or legal compliance.

The application of the Checklist will vary depending on the nature of your company and the products you manufacture or sell so make it your own.

Larger companies, particularly multinational brand owners, should aim to address all of the Principles and possibly go beyond them. Smaller companies and new APCO Members could start by evaluating their packaging against the Principles that most closely support the National Packaging Targets, and then progressively address all Principles. This 'tiered' approach to implementation is similar to the pathway for reporting under the Packaging Sustainability Framework (see Figure 9).

Alternatively, you may have an equivalent set of guidelines or assessment process that will achieve the same outcomes.

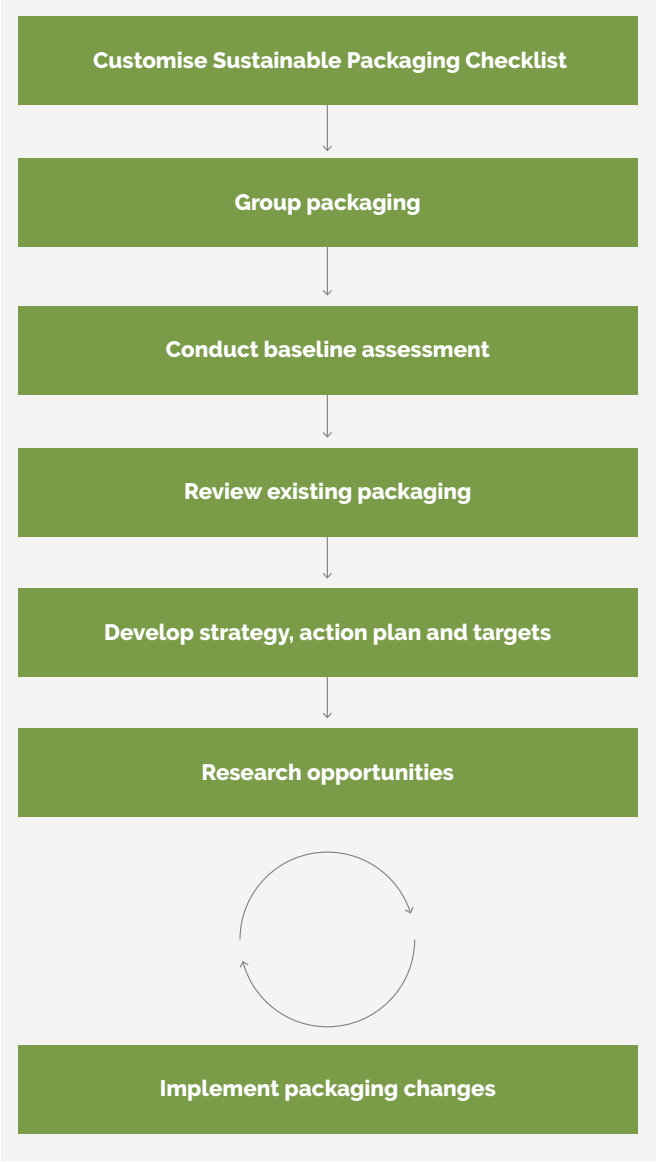

Figure 8: Existing packaging review process

Scenario 1: Adopt the Sustainable Packaging Guidelines

If you are adopting the SPGs:

- Consider which of the Principles are:
  - Relevant and an initial priority for your organisation.
  - Relevant as a secondary priority.
  - Not relevant.

- Tailor the Checklist questions to your organisation – delete questions if not relevant, amend wording or add new questions.
- Assign questions to the responsible person or function, which may include suppliers.
- Consider developing a simplified Checklist for information needed from packaging or product suppliers.

Scenario 2: Review the Principles against an existing internal packaging sustainability guideline or tool

If your organisation is already using an alternative set of guidelines that you believe is 'equivalent' to the SPGs:

- Review the Principles and Checklist to check consistency and make sure all relevant Principles are covered in your organisation's guidelines.
- Demonstrate that you have considered the Principles and strategies in the design and procurement of packaging.

Please note: Equivalent means the same principles are being addressed (it may include rephrasing or adapting to company context).

Conduct a trial assessment of existing packaging

Conduct a trial packaging review to confirm your Checklist questions are well understood and appropriate for your products and packaging.

Having all your nominated representatives involved in an initial trial will help you to identify staff who are able to conduct reviews for different packaging groups as it may not always be the same team.

Conducting a preliminary trial can also be helpful to identify early improvement opportunities and understand where knowledge gaps may occur for subsequent packaging reviews.

Develop a schedule and review all existing packaging formats

Develop a documented review schedule and approach to review all existing packaging. Track progress against your review schedule over time and document everything. Some things to consider:

- Use the Sustainable Packaging Checklist to start aggregating data.
- Breakdown packaging into layers of primary packaging and distribution or B2B packaging.
- Start collecting packaging data by tonnes.
- Collect evidence to support all responses and review supporting information.
- Engage packaging suppliers and other stakeholders as needed to gather all required information.
- Work sequentially through the Checklist, documenting issues, opportunities for improvement, or reasons why current packaging components cannot be altered at the current time.
- Use PREP to confirm if your packaging is recyclable through kerbside collection in Australia and New Zealand.
- Determine what (if any) opportunities may exist for more sustainable options.
- Identify the opportunities, risks and barriers for more sustainable options.
- Document the review process so any decisions, discussions and the underlying evidence for those decisions are retained on file.
- Contact your suppliers in writing and retain all responses in your document management system.

Level 1:
Getting started (new Members)

Address **Design for recovery** to support the main National Packaging Target

Level 2: Good progress (Small organisations - annual turnover less than $50 million)

Address **Use recycled materials**, **Use renewable materials**, **Eliminate hazardous materials**, **Optimise material efficiency and Design to minimise litter**, to support the remaining National Packaging Targets, and **Design to reduce product waste**.

Level 3: Advanced (Medium sized organisations - annual turnover between $50 million and $750 million)

Address remaining Principles i.e. **Design for transport efficiency**, **Design for accessibility** and **Provide consumer information**

Level 4: Leading (Large organisations - annual turnover greater than $750 million)

Ensure that packaging design addresses all 10 Principles and has been optimised

Level 5: Beyond best practice

Develop a strategy to phase out any packaging that is inconsistent with the 10 Principles

Figure 9: *A progressive approach to implementation*

STEP 4. Implement the Sustainable Packaging Principles

In addition to reviewing your existing packaging against the Principles, consider opportunities to integrate sustainable design criteria into new product development processes so that sustainable packaging choices become 'just the way you do business'.

Develop a packaging sustainability strategy

Integrate packaging sustainability goals and targets in your corporate strategy or develop a stand-alone packaging sustainability strategy.
Your strategy should:

- Commit the organisation to use the SPGs (or equivalent) for packaging;
- Include specific, measurable and time-based targets;
- Be integrated in business processes;
- Commit to publicly reporting progress against targets in the APCO Annual Report and Action Plan or elsewhere; and
- Outline a process for continuous improvement.

Link to the Packaging Sustainability Framework criteria, Criteria 1.1 – Packaging Sustainability Strategy.
Your APCO Annual Report and Action Plan could be used to meet the requirements for a packaging sustainability strategy if it meets the specified requirements (see APCO Annual Reporting Tool for more information).

Prepare your APCO Action Plan and targets

Following the baseline review of existing packaging, or once a substantial portion of packaging has been reviewed, agree on initial company goals based on the outcomes of early reviews, and with consideration of APCO targets to reduce packaging waste and improve recycling outcomes.

Develop a work plan to implement key commitments, and document this in your internal detailed action plan, including timelines for actions to achieve your commitments.

To consider in your action planning:

- Identify factors that you can influence, which can be actioned and are effective.
- Locate helpful information sources, via APCO or elsewhere.
- Investigate best-practice sustainable design examples relevant to your packaging formats.
- Refer to the APCO Quickstarts.

Some examples:

- Phase out any 'problematic and unnecessary' materials or formats (to be identified based on your packaging reviews), or phase out 'problematic and unnecessary' packaging for certain products (estimated tonnes by a given date) to support the National Packaging Target:
  - Problematic and unnecessary single-use plastic packaging will be phased out through design, innovation or introduction of alternatives.
- Increase purchase of recycled content packaging (set a company target) to support the National Packaging Target:
  - 50% average recycled content will be included across all packaging by 2025.
- Find recyclable alternatives or improve packaging recyclability (set company target) to support the National Packaging Target:
  - 100% of all Australia's packaging designed will be reusable, recyclable or compostable by 2025 or earlier.
- Reduce point of sale material (for priority products).
- Reduce paper content in consumer information booklets, or go online where possible (set company target).

Integrate Sustainable Packaging Principles in new packaging considerations

All new packaging initiatives must consider the Principles to ensure the most sustainable alternatives are being explored and implemented where feasible.

Consider opportunities to integrate sustainable design criteria in areas of the business so they remain high on the agenda throughout all decision-making processes.

Some options to consider:

- Develop standards or specifications that outline your sustainable packaging criteria.
- Map the new product development process to determine opportunities to integrate sustainable packaging criteria. This could be a simple flowchart or procedure.
- Identify points where you can influence packaging and product design, and document the use of the Checklist in your new product development flowchart or procedure.
- Review packaging specifications to determine where sustainable packaging criteria can be

integrated into existing product specification documents.
- Identify gaps in current specifications, i.e. issues not addressed and determine best method to address the gaps.
- Consider options to implement new processes to better contemplate the sustainability features of product packaging.
- Build priorities into procurement policy.
- Develop a communication / engagement schedule with suppliers to prompt them to consider certain attributes of packaging and facilitate new packaging innovation.

STEP 5. Track and report progress

All aspects of SPGs implementation must be documented. Decisions, discussions and the underlying evidence for those decisions must be retained on file for independent auditing and continuing sustainability improvement. Each year, APCO conducts independent audits of APCO Member Annual Reports and Action Plans, including the implementation of the SPGs, based on a robust method for the random selection of participants and ensuring proportional representation of different types and sizes of businesses in the audit.

Develop a suitable documentation and filing system

Packaging data and improvements will need to be tracked and reported using the APCO Annual Reporting Tool. Consider opportunities to collate relevant documents and progress in an APCO directory or relevant company document management system.

A centralised information management system is particularly important if you have a large, inter-disciplinary sustainable packaging team.

Develop a packaging database

Collating accurate packaging data will be necessary to track your packaging improvement over time and report progress in meeting APCO targets to reduce packaging, improve the reuse, recycling or composting of packaging and increase the uptake of recycled content in packaging.

Consider opportunities to integrate information in existing systems or develop a new packaging database to track your packaging improvements.

Gather information for different packaging layers:
- Total packaging weight, i.e. tonnes sold to market per annum.
- Packaging composition, i.e. paper, cardboard, plastic etc.
- Disposal options, i.e. reusable, recyclable or compostable.
- Percentage (%) of recycled content.
- Percentage (%) of renewable content.
- Percentage (%) of other relevant properties and qualities, i.e. thickness, additives, inks.

Hint: Consider using PREP to assist with the collection of this information.

Document and report progress

All APCO Members are required to clearly document their review process and the initiatives they have undertaken to make packaging more sustainable.

Document how each of the Principles have been considered during your packaging review, design and procurement processes. The documentation must describe the improvements implemented, or reasons why an opportunity could not be pursued at the time.

Review information required for the Annual Reporting Tool and track progress to meet annual reporting requirements. The Packaging Sustainability Framework criteria used within the Annual Reporting Tool that allow you to report specific design outcomes are shown in Figure 10.

Figure 10: *Packaging Sustainability Framework criteria relating to packaging reviews*

STEP 6. Seek opportunities for continual improvement

Implement regular reviews and checks

Packaging innovations are continually occurring as more companies strive to achieve more sustainable packaging outcomes. Even if you think you are doing the best you can, consider opportunities to check in on changes from time to time to see if new technologies or packaging formats are available and suitable for your product.

Check for new opportunities as part of your new product development process.

Seek input from suppliers

Establish annual technical reviews with your key suppliers to enable them to present the latest technologies and packaging innovations. Encourage suppliers to proactively seek new solutions and provide updates as they arise.

Frequently Asked Questions

APCO is committed to collating and sharing information so that Members can benefit from the experience of others. Here are a few challenges noted to date.

Managing trade-offs

The adoption of one design principle over another may result in trade-offs. For example, light-weighting a packaging format might provide the best economic outcome and provide a net overall benefit over the packaging lifecycle. Light-weighting generally achieves other benefits in addition to material reduction, including a reduction in energy and greenhouse gas emissions during production and transport. However, it may result in changes which mean it is not recyclable in the kerbside system. It might therefore be necessary to explore alternative packaging designs and available recycling opportunities before making a final decision about transitioning to that packaging format.

Sometimes there are conflicting demands for performance and cost, consumer protection and the environment, which can also result in trade-offs between different sustainability criteria and packaging functionality. An example of this is when packaging formats may need to be increased in strength to reduce damage and product loss that is occurring in warehouse and distribution.

There is no right or wrong answer to deciding how to implement packaging changes based on these trade-offs, but it is important you document the decision-making process used to consider the Principles, including a description of the improvements implemented, or reasons why an opportunity could not be pursued at the time. As a general guide, strategies should be prioritised in the following order:

- Design for recovery;
- Optimise material efficiency;
- Design to reduce product waste;
- Eliminate hazardous materials;
- Use recycled materials;
- Use renewable materials;
- Design to minimise litter
- Design for transport efficiency;
- Design for accessibility; and
- Provide consumer information on sustainability.

Achieving compliance and continuous improvement

All APCO Members are required to:

- Implement design and procurement processes that drive sustainable design of packaging, consistent with the SPGs;
- Apply the SPGs to all new packaging;
- Commit to reviewing all existing Consumer Packaging within a reasonable timeframe in accordance with the SPGs; and
- Report on the actions they have taken to implement the Guidelines, including reporting on the outcomes of self-assessment, leading to:
    - the design of packaging that is more resource efficient and more recyclable and increase in the recovery and recycling of used packaging from households and away-from-home sources, and
    - action that reduces the incidence and impacts of litter.

New Members and smaller organisations sometimes find it challenging to implement all of the Principles immediately. APCO have proposed an implementation pathway that suggests organisations such as these start with the highest priorities under the National Packaging Targets (see Figure 9 on page 22). Larger organisations are expected to review their packaging against all of the Principles and ensure that these are being addressed as much as possible.

Engaging overseas supply chains

Some APCO Members have overseas supply chains which can limit the ability to influence packaging design or mean there is no control over packaging decisions. Others may struggle to obtain information from overseas suppliers.

Whilst overseas supply chains can sometimes be difficult to engage, they can be a valuable resource to help you evaluate your current packaging and identify new opportunities. It is important to demonstrate you have taken all reasonable efforts to work with your suppliers to review your packaging and improve sustainability outcomes.

Here are some ideas for engaging overseas suppliers:

- Open the lines of communication early in the process:
    - Provide background information about the Covenant and the SPGs and include your statement of commitment and overarching

packaging goals.
- Establish their current position and commitment to sustainable packaging:
  - Request information about their sustainability commitment and packaging specifications.
  - Do they have an equivalent process for considering sustainable packaging principles in their packaging design and manufacture?
  - Are initiatives already underway that align with your sustainable packaging commitment?
- Communicate your sustainable packaging requirements in your packaging specifications.
- Provide a copy of relevant APCO Quickstart guides or your tailored Checklist.
- Seek their support to provide new ideas, solutions and innovative designs to help meet your sustainable packaging goals.

Tip: Get some ideas from the APCO Quickstarts.

Overcoming restrictions using recycled content

Some products have specific performance requirements and standards for packaging, which can limit the type of packaging used including the option to use recycled content in packaging.

In the past, restrictions on using recycled content in packaging have related to concerns about uncontrolled post-consumer material resulting in poorer quality packaging.

New developments in recycled content packaging are occurring all the time to improve the quality and application, including to meet standards for food contact applications. If you have not yet found an opportunity to use recycled content in your packaging, it is important to continually review new packaging improvements.

To overcome perceptions about using recycled content packaging:
- Check why restrictions have been placed on using recycled content packaging. Do these reasons still apply?
- Periodically review recycled content alternatives to determine if they meet your packaging specifications, without prejudice (technology and quality is continually improving).
- Work with your suppliers to seek new alternatives.

Engaging marketing and design teams

Making changes to packaging to improve sustainability outcomes can sometimes conflict with other packaging objectives within your organisation. In some cases, the ultimate decision for packaging lies with the marketing team and new ideas can be rejected if they do not align with their objectives.

Consumers often base their product choices on the packaging but are also increasingly aware of the impacts of packaging and are becoming more concerned about excess packaging.

To engage your marketing team:
- Get them involved early on and include them in your packaging review team.
- Discuss their objectives and show they have been given consideration in packaging reviews.
- Show examples of how other organisations have used an innovative sustainable packaging design to provide a marketing edge.
- Consider if there is an opportunity to promote sustainable packaging features in marketing plans, e.g. through promoting your organisation's use of the Australasian Recycling Label.
- Build questions into consumer research to determine how much your customers value sustainability and organisations that adopt sustainability programs and more sustainable packaging.
- Demonstrate how more sustainable packaging can provide a marketing edge.
- Show how bad packaging decisions negatively impact end-of-life disposal options and how that might reflect poorly on your organisation, e.g. by sharing the Quickstart guides.

Finding opportunities for importers

If you import and sell pre-packaged product, you may have limited opportunity to choose more sustainable packaging options.

Regardless, you are required to assess your packaging against the Checklist and consider improvement opportunities. You must demonstrate you have sincerely sought to influence your suppliers to adopt more sustainable alternatives where applicable. You might be surprised where you can influence change.

Consider some of the following:
- Provide introductory information about the Covenant and your overarching packaging goals.
- Request information about their sustainability commitment and determine if more sustainable packaging options are considered.
- Prepare a questionnaire to seek information to support your packaging reviews.
- Provide feedback from your reviews and recommendations on how they could improve packaging formats:
  - Notify them if packaging is not recyclable in Australian recycling systems and communicate

Australia's National Packaging Target to make all packaging reusable, recyclable or compostable by 2025.
  - Work with them to consider alternative options.
  - Share relevant guidelines and Quickstarts to help guide more sustainable design.
- Review your supply chain to determine if there are areas where you do make packaging decisions, e.g. B2B packaging once product is landed.
  - Consider if there are opportunities to make improvements where you have control or influence.

Keep records of all communications to show evidence of steps taken to improve packaging and justify decisions made.

Finding opportunities for retailers

Retailers have many opportunities to choose more sustainable packaging. At a minimum you are required to review all packaging of own-brand products and other packaging provided to customers in-store (checkout bags, tissue paper, etc.) to identify opportunities for improvement. The section above on 'Finding opportunities for importers' may assist with engaging suppliers of imported products.

A few tips:

- Review your incoming (B2B) distribution packaging for improvement opportunities. Many retailers are starting to use reusable distribution packaging for local suppliers.
- Identify any unnecessary distribution packaging items such as plastic bags and boxes that are removed at the store and not required for product protection
- Do not forget to review packaging for online orders and ensure that this has been reviewed and optimised
- Consider how you might be able to influence other brand owners that sell in your stores. Provide them with a copy of your packaging sustainability strategy and SPG checklist and encourage them to look for improvement opportunities
- Engage your customers, for example by encouraging them to use reusable shopping bags and by promoting other packaging sustainability initiatives

Simplifying the process for large numbers of SKUs

Some organisations have a considerable number of stock keeping units (SKUs) so at the outset, the sustainable packaging reviews may seem overwhelming. Finding ways to group packaging into units with similarities will simplify the review schedule and help avoid repetition in the process.

A few tips:

- Review your products and identify synergies in packaging formats common to different SKUs or product categories, i.e. gift boxes might be used across a range of product categories or SKUs.
- Sort your SKUs or product categories into more manageable groups that make sense for your company.
- Develop a review schedule which is reasonable to tackle.
- Consider starting with the less complex packaging formats or the packaging groups with the highest number of SKUs and work down from there.
- Stop and reflect to determine if there are synergies or trends appearing as you review existing packaging formats.

Applying the SPGs to distribution and business-to-business packaging

The SPGs should be applied to all of the packaging manufactured or used by your organisation, including distribution and business-to-business (B2B) packaging. This type of packaging is often easier to influence than consumer packaging.

To review your distribution and B2B packaging:

- Get representatives from procurement, warehousing and distribution involved early on and include them in your packaging review team.
- Discuss their objectives and show they have been given consideration in packaging reviews.
- Show examples of how other organisations have used an innovation in distribution packaging to improve efficiencies and reduce cost.
- Take a walk through your packaging supply chain from the packaging manufacturer or importer through to filling, distribution, warehousing, retail and resource recovery to understand how packaging is used and disposed at every stage. Make observations and ask questions to consider:
  - Are there any opportunities to use less or pack more efficiently?
  - Has any packaging or product damage occurred by the time your product makes it to the store or end customer?
  - Are there opportunities to work with your suppliers or customers to reduce distribution packaging or reduce product damage (if relevant)?
  - How is the packaging being disposed? Is it reused, recycled or composted?
  - How can your design or procurement decisions help to ensure that your packaging is collected and recycled?

Supporting Resources

There are a number of supporting APCO and external resources to help you implement the Sustainable Packaging Guidelines. Figure 11 provides an overview of the resources available, and links to documents are listed below.

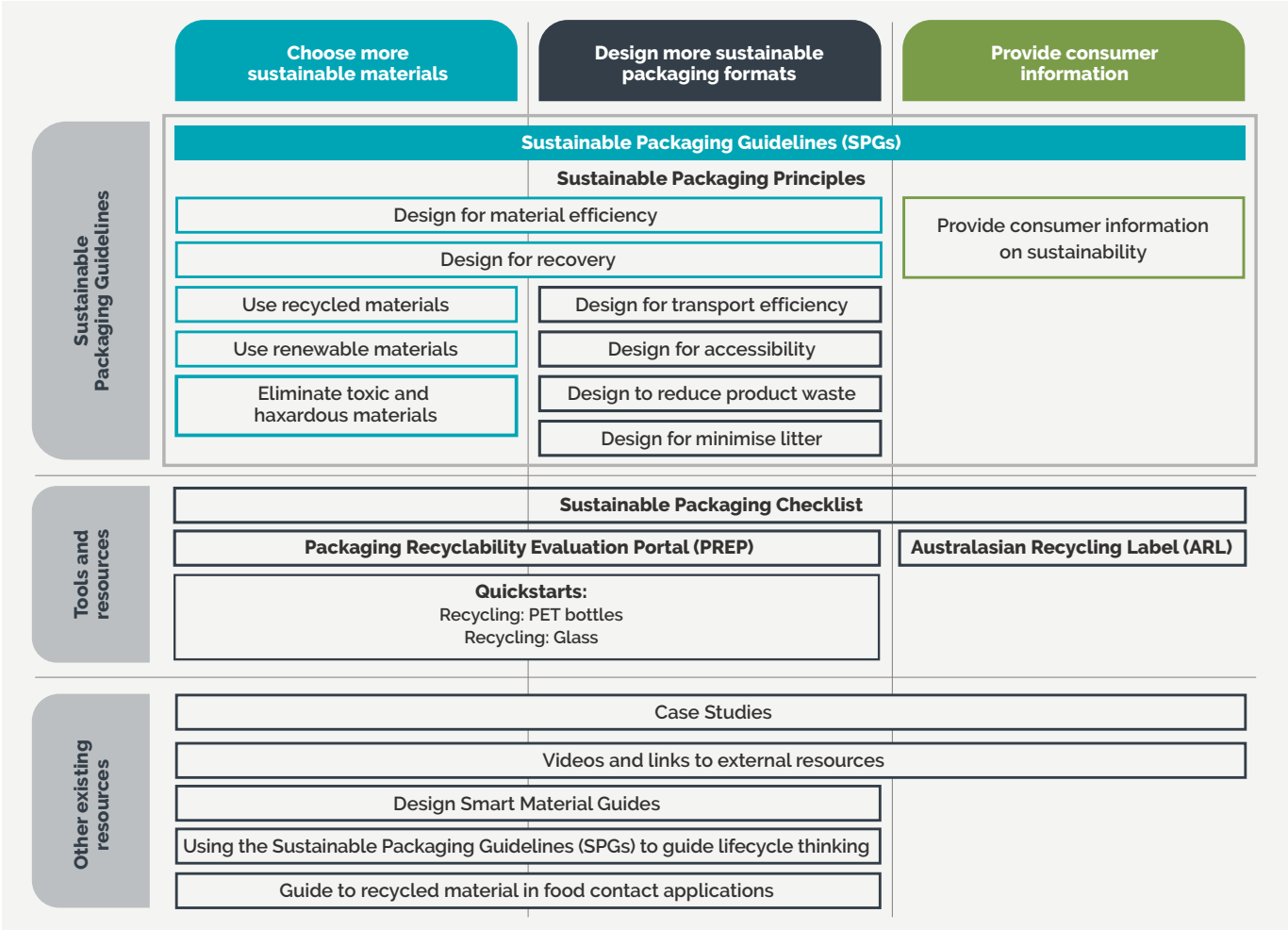

***Figure 11**: Tools and resources available to support implementation of the SPGs*

General Resources

- APCO (2019), **Sustainable Packaging Checklist**, available at: *http://documents.packagingcovenant.org.au/public-documents/Sustainable%20Packaging%20Checklist*
- PREP Design (2019), **Packaging Recyclability Evaluation Portal**, available at: *https://prep.org.au/main/content/home*
- Planet Ark (2019), **Australasian Recycling Label**, available at: *https://recyclingnearyou.com.au/arl/*
- O'Farrell, K. and H. Lewis (2013), **Design Smart material guides - Introductory Guide**, available at: *http://documents.packagingcovenant.org.au/public-documents/Design%20Smart%20Material%20Guide%20Introductory%20Guide*
- O'Farrell, K. and H. Lewis (2013), **Design Smart material guides - Fibre-Based Packaging**, available at: *http://documents.packagingcovenant.org.au/public-documents/Design%20Smart%20Material%20Guide%20Fibre-Based%20Packaging*
- O'Farrell, K. and H. Lewis (2013), **Design Smart material guides - Rigid Plastic Packaging**, available at: *http://documents.packagingcovenant.org.au/public-documents/Design%20Smart%20Material%20Guide%20Rigid%20Plastic%20Packaging*
- O'Farrell, K. and H. Lewis (2013), **Design Smart material guides - Flexible Plastic Packaging**, available at: *http://documents.packagingcovenant.org.au/public-documents/Design%20Smart%20Material%20Guide%20Flexible%20Plastic%20Packaging*
- O'Farrell, K. and H. Lewis (2013), **Design Smart material guides Aluminium Packaging**, available at: *http://documents.packagingcovenant.org.au/public-documents/Design%20Smart%20Material%20Guide%20Aluminium%20Packaging*
- O'Farrell, K. and H. Lewis (2013), **Design Smart material guides Steel Packaging**, available at: *http://documents.packagingcovenant.org.au/public-documents/Design%20Smart%20Material%20Guide%20Steel%20Packaging*
- O'Farrell, K. and H. Lewis (2013), **Design Smart material guides - Glass Packaging**, available at: *http://documents.packagingcovenant.org.au/public-documents/Design%20Smart%20Material%20Guide%20Glass%20Packaging*
- O'Farrell, K. and H. Lewis (2013), **Design Smart material guides - Composite Packaging**, available at: *http://documents.packagingcovenant.org.au/public-documents/Design%20Smart%20Material%20Guide%20Composite%20Packaging*
- O'Farrell, K. and H. Lewis (2013), **Design Smart material guides - Compostable Plastic Packaging**, available at: *http://documents.packagingcovenant.org.au/public-documents/Design%20Smart%20Material%20Guide%20Compostable%20Packaging*
- O'Farrell, K. and H. Lewis (2013), **Design Smart material guides - Packaging Components**, available at: *http://documents.packagingcovenant.org.au/public-documents/Design%20Smart%20Material%20Guide%20Packaging%20Components*

Resources relevant to the Sustainable Packaging Principles

Design for recovery

Design for material recycling

- PREP Design (2019), **Packaging Recyclability Evaluation Portal**, available at: *https://prep.org.au/main/content/home*
- APCO (2019), **Quickstart Guide to Design for Recovery: Reuse, Recycling or Composting**, available at: *http://documents.packagingcovenant.org.au/public-documents/Quickstart%20Guide%20-%20Design%20for%20Recovery;%20Reuse,%20Recycling%20or%20Composting*
- APCO (2019), **Quickstart Guide to Designing for Recyclability - PET Packaging**, available at: *https://documents.packagingcovenant.org.au/public-documents/Quickstart%20Guide%20-%20Designing%20for%20Recyclability;%20PET%20Packaging*
- APCO (2019), **Quickstart Guide to Designing for Recyclability - Glass Packaging**, available at: *http://documents.packagingcovenant.org.au/public-documents/Quickstart%20Guide%20-%20Designing%20for%20Recyclability;%20Glass%20Packaging*

Design for organics recycling

- APCO (2019), **Quickstart Guide to Design for Recovery: Reuse, Recycling or Composting**, available at: *http://documents.packagingcovenant.org.au/public-documents/Quickstart%20Guide%20-%20Design%20for%20Recovery;%20Reuse,%20Recycling%20or%20Composting*

- ABA (2019), **Australasian Bioplastics Association**, available at: *https://www.bioplastics.org.au/*
- Standards Australia (2006), **Australian Standard 4736-2006 Biodegradable plastics – Biodegradable plastics suitable for composting and other microbial treatment**, available at: *https://www.saiglobal.com/*
- Standards Australia (2010), **Australian Standard AS 5810-2010 Biodegradable plastics—Biodegradable plastics suitable for home composting**, available at: *https://www.saiglobal.com/*

Design to reduce product waste

- RMIT University (2013), **The role of packaging in reducing food waste in the supply chain, Report to CHEP Australia**, available at: *https://researchbank.rmit.edu.au/view/rmit:45164*
- RMIT University (2014), **Districts, lifestyles and avoiding food waste, Report to Banyule City Council**, available at: *https://researchbank.rmit.edu.au/view/rmit:45163*

Eliminate hazardous materials

- PackagingLaw.com (2017), **Food Packaging Regulations in Australia and New Zealand**, available at: *https://www.packaginglaw.com/special-focus/food-packaging-regulations-Australia-and-New-Zealand*

Use renewable materials

- FSC (2019), **Forest Stewardship Council**, available at: *https://au.fsc.org/en-au*
- PEFC (2019), **Programme for the Endorsement of Forest Certification**, available at: *https://www.pefc.org/*
- ABA (2019), **Australasian Bioplastics Association**, available at: *https://www.bioplastics.org.au/*

Design to minimise litter

- Keep Australia Beautiful (2018), **National Litter Index**, available at: *http://kab.org.au/litter-research/national-litter-index/*

Design for accessibility

- Arthritis Australia (2017), **Receive a Packaging Accessibility Rating for the health system**, available at: *https://arthritisaustralia.com.au/accessible-design-division/resources-for-industry/accessibility-rating-health-system/*
- Arthritis Australia (2018), **Food Packaging Design Accessibility Guidelines**, available at: *https://arthritisaustralia.com.au/wordpress/wp-content/uploads/2018/12/Food-Packaging-Design-Accessibility-Guidelines_Arthritis-Australia_18.pdf*

Provide consumer information on environmental sustainability

- Australian Competition and Consumer Commission (2011), **Green marketing and the Australian Consumer Law**, available at: *https://www.accc.gov.au/system/files/Green%20marketing%20and%20the%20ACL.pdf*
- Standards Australia (2000), **AS/NZS ISO 14021-2000 Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling)**, available at: *https://www.saiglobal.com/*
- APCO (2019), **Quickstart Guide to Labelling for Recovery**, available at: *http://documents.packagingcovenant.org.au/public-documents/Quickstart%20Guide%20-%20Labelling%20for%20Recovery*

Regulations

Summary of state and territory legislative frameworks giving effect to the NEPM.

Table 1. *Summary of the state and territory legislative frameworks giving effect to the NEPM.*

JURISDICTION	SUMMARY OF IMPLEMENTATION
Commonwealth	The Commonwealth's implementing legislation applies to its jurisdictional territories and to brand owner companies with over 50 per cent government ownership such as Australia Post.
New South Wales	The NEPM is implemented by the Protection of the Environment Operations (Waste) Regulation 2014.
Victoria	The NEPM is implemented by the Waste Management Policy (Used Packaging Materials) 2012.
Queensland	The NEPM is implemented by the Waste Reduction and Recycling Regulation 2011.
Western Australia	The NEPM is implemented by the Environmental Protection (NEPM—Used Packaging Materials) Regulations 2013.
South Australia	The NEPM is legally enforced by the Environment Protection (Used Packaging Materials) Policy 2012.
Tasmania	The NEPM is a state policy under the State Policies and Projects Act 1993.
Australian Capital Territory	A new instrument to implement the NEPM in the ACT has not yet been put in place following commencement of the Waste Management and Resource Recovery Act 2016[3].
Northern Territory	There is provision under the Waste Management and Pollution Control Act 1998 to enforce the NEPM if needed.

[3]The ACT previously implemented the NEPM via the Waste Minimisation (Used Packaging Materials Industry Waste Reduction Plan) Approval 2013 (No 1) instrument repealed on commencement of the Waste Management and Resource Recovery Act 2016. The ACT is working to reinstate this instrument via an enforceable Code of Practice

States and territories that references the SPGs

Table 2. *Summary of the state and territory legislative frameworks that reference the SPGs.*

JURISDICTION	LEGISLATION	REFEERENCES THE SPGS
Commonwealth	National Environment Protection (Used Packaging Materials) Measure 2011	✓
ACT	No legislative instrument under the NEPM[4]	NA
NSW	Protection of the Environment Operations (Waste) Regulation 2014	✓
NT	No legislative instrument under the NEPM	NA
Qld	Environmental Protection (Waste Management) Regulation 2000	X
SA	Environment Protection (Used Packaging Materials) Policy 2012	✓
Tasmania	No legislative instrument under the NEPM – the NEPM is taken to be State policy	NA
Victoria	Waste Management Policy (Used Packaging Materials 2012	✓
WA	Environmental Protection (NEPM – UPM) Regulations 2013	X

[4] *The new ACT Code of Practice is expected to reference the SPGs.*

Definitions

Table 3. *Definitions of terminology used within this document.*

TERM	DEFINITION
Accessibility	Relates to the ease of use a consumer experiences when completing tasks.[5] For packaging, this includes factors such as ease of opening and readability of labels.
Business-to-business packaging (B2B)	Packaging used to distribute products between businesses or business units.
Certified compostable[6]	Certified compostable means that claims of compliance with Australian Standard 4736-2006, compostable and biodegradable plastics – "Biodegradable plastics suitable for composting and other microbial treatment" and Australian Standard AS 5810-2010 Home Composting – "Biodegradable plastics suitable for home composting" have been verified.
Circular economy[7]	At the broadest level, a circular economy aims to change the patterns of natural resource use in the economy in order to achieve sustainable growth by slowing, narrowing or closing material loops.
Compostable packaging[8]	A packaging or packaging component (1) is compostable if it is certified to AS4736, AS5810 or a similar compostability standard, and if its successful post-consumer (2) collection, (sorting), and composting is proven to work in practice and at scale (3). Notes 1. ISO 18601:2013: A packaging component is a part of packaging that can be separated by hand or by using simple physical means (e.g. a cap, a lid and (non in-mould) labels). 2. ISO 14021 clarifies post-consumer material as material generated by households or by commercial, industrial and institutional facilities in their role as end users of the product which can no longer be used for its intended purpose. This includes returns of material from the distribution chain. 3. 'At scale' implies that there are significant and relevant geographical areas, as measured by population size, where the packaging is actually composted in practice.
Design	This includes choice of materials, additives, colours, labels, glues, inks, caps and closures, format, dimensions, etc.
Distribution packaging	The packaging used to distribute the product through the supply chain, e.g. shippers, stretch wrap, pallets etc. This is also referred to as business-to-business (B2B) packaging within the APCO Annual Reporting Tool.

[5] *https://arthritisaustralia.com.au/accessible-design-division/what-is-accessible-design/*
[6] *APCO (2019), Biodegradable and compostable packaging working group 2018, p. 7*
[7] *Commonwealth of Australia (2018), National waste policy: less waste, more resources, p. 17*
[8] *Based on Ellen Macarthur Foundation (2019), The new plastics economy: global commitment reporting guidelines, 16th July 2019, p. 49*

TERM	DEFINITION
End-of-life	A term used to describe the expected disposal option for packaging when the customer/consumer has removed the product.
Energy recovery[9]	The process of recovering energy that is embodied in solid waste.
Equivalent	The same principles are being addressed (it may include rephrasing or adapting to company context).
Hazardous substances	They are toxic to humans or other living organisms; are flammable, explosive or corrosive; are ozone depleting; or contribute to climate change. Examples often mentioned for packaging include heavy metals (e.g. in some inks and pigments), Bisphenol A (in polycarbonate plastics and the lining of steel cans) and plasticisers (e.g. some phthalates in PVC plastics).
Highest potential environmental value	Recovery is occurring at the optimal level of the waste hierarchy, based on available recovery systems and sustainability impacts of alternative recovery options (e.g. composting vs. recycling, or recycling vs. energy recovery). Reuse is encouraged prior to recovery when there is evidence that it extends the life of the packaging and achieves positive sustainability outcomes.
Labelling	Can be in the form of a statement, symbol or graphic on a purchased product at any point in the supply chain, but most commonly used at the final point of sale (e.g. retail).
Litter	Discarded packaging waste that has been disposed of improperly by accident or deliberately in an open or public place. Littered packaging like plastic wrap, cans and bottles can exist in the environment for long periods of time and cause serious environmental issues in some areas, particularly if it enters waterways and sensitive environmental areas.

[9] *Commonwealth of Australia (2018), National waste report, p. vii*

TERM	DEFINITION
Optimised (material efficiency)	No further reductions in packaging weight or volume are possible at the present time.
Optimised (post-consumer recovery)	No further changes can be made to improve post- consumer recovery of packaging at the present time, including improvements to achieve highest potential environmental value.
Organics recycling	The treatment of separately collected organics waste by anaerobic digestion, composting or vermiculture.
Packaging system	All of the packaging components used for the product, including the primary packaging and distribution packaging.
Packaging Recyclability Evaluation Portal (PREP)	An online tool that provides clear, consistent and validated information about the recyclability of specific packaging formats.
Pallet utilisation	The percentage of the total available pallet area that is actually occupied by a product
Primary packaging	The packaging used to contain and protect a product (e.g. bag, bottle, jar, box etc. and any associated components), and which goes home with the consumer. Primary packaging also includes any packaging given to consumers at point of sale (e.g. retail bag, tissue paper etc.), and all packaging delivered to consumers with online sales (e.g. bag, cushioning, box etc.).
Recyclable packaging[10]	A packaging (1) or packaging component (2,3) is recyclable if its successful post-consumer (4) collection, sorting, and recycling (5) is proven to work in practice and at scale. Notes 1. A package can be considered recyclable if its main packaging components, are recyclable according to the above definition, and if the remaining minor components are compatible with the recycling process and do not hinder the recyclability of the main components. 2. A packaging component is a part of packaging that can be separated by hand or by using simple physical means (ISO 18601), e.g. a cap, a lid and (non in-mould) labels. 3. A packaging component can only be considered recyclable if that entire component, excluding minor incidental constituents (6), is recyclable according to the definition above. If just one material of a multi-material component is recyclable, one can only claim recyclability of that material, not of the component as a whole (in line with ISO 14021). 4. ISO 14021 defines post-consumer material as material generated by households or by commercial, industrial and institutional facilities in their role as end users of the product which can no longer be used for its intended purpose. This includes returns of material from the distribution chain. It excludes pre-consumer material (e.g. production scrap). 5. ISO 18601:2013: A packaging constituent is a part from which packaging or its components are made and which cannot be separated by hand or by using simple physical means (e.g. a layer of a multi-layered pack or an in-mould label).

[10] *Based on Ellen Macarthur Foundation (2019), The new plastics economy: global commitment reporting guidelines, 16th July 2019, p. 45*

TERM	DEFINITION
Recyclable through kerbside	In a particular geographical area, at least 80% of the overall population has convenient access to a service that collects the packaging or packaging component, and that this item can be recovered and sorted in a stream where at least 70% of its weight can be recycled into another product. This should consider its design, manufacturing process and most likely way of using, disposing and collecting it.
Recycled content	Is the proportion, by mass, of pre-consumer and post-consumer recycled material in packaging (AS/ISO 14021). 'Pre-consumer' material is material diverted from the waste stream during manufacturing (excluding rework). 'Post-consumer' material is material waste generated by households or by commercial, industrial and institutional facilities. The amount of renewable or recycled material is expressed as a percentage of the quantity of packaging material put onto the market.
Recycling	Includes both material recycling (maintaining material structure) and chemical recycling (e.g. breaking materials down into more basic building blocks).
Recoverability	Recoverability of packaging refers to the availability of systems for reuse, recycling, composting or energy recovery.
Renewable material	Material that is composed of biomass from a living source and that can be continually replenished. Renewable materials include paper and cardboard from sustainably grown wood fibre, or a biopolymer from a sustainable source.
Reusable packaging[11]	Packaging which has been designed to accomplish or proves its ability to accomplish a minimum number of trips or rotations (1,2) in a system for reuse (3,4). Notes 1. A trip is defined as transfer of packaging, from filling/loading to emptying/unloading. A rotation is defined as a cycle undergone by reusable packaging from filling/loading to filling/loading (ISO 18603). 2. The minimum number of trips or rotations refers to the fact that the 'system for reuse' in place should be proven to work in practice, i.e. that a significant share of the package is actually reused (measured e.g. by an average reuse rate or an average number of use-cycles per package). 3. A system for reuse is defined as established arrangements (organisational, technical or financial) which ensure the possibility of reuse, in closed-loop, open-loop or in a hybrid system (ISO 18603). 4. Reuse is an operation by which packaging is refilled or used for the same purpose for which it was conceived, enabling the packaging to be refilled (ISO 18603).
Reuse	An operation by which packaging is refilled or used for the same purpose for which it was conceived, with or without the support of auxiliary products present on the market, enabling the packaging to be refilled.
Risk management	This approach helps organisations to manage uncertainties by identifying and taking action to mitigate risks.
Secondary packaging	Is additional to the primary packaging and is used for protection and collation of individual units during storage, transport and distribution. It can also be used in some sectors to display primary packs on shelf. Other terms: retail-ready packaging (RRP), shelf-ready packaging (SRP) or counter- top display units (CDUs).

[11] Based on Ellen Macarthur Foundation (2019), The new plastics economy: global commitment reporting guidelines, 16th July 2019, pp 36-7

TERM	DEFINITION
Stock keeping unit (SKU)	It is a distinct product or packaging item, normally with a unique identifier or code to assist with inventory management.
Tertiary packaging	Used for the protection and shipping of a product. This type of packaging is rarely seen by the consumer, and consists of cardboard cartons, pallets, slip sheets, stretch wrap, strapping and any labels. Other terms: Distribution packaging, transport packaging, business to business (B2B packaging).
Waste hierarchy	An order for preference for the management of waste, with avoidance being the most preferred option and disposal being the least

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