Best Practice Guidelines:

Product Stewardship for Small-format Cosmetic Packaging in Australia

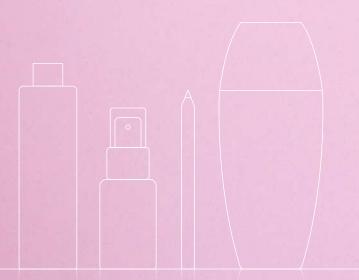




Table of Contents

O1 Purpose

02 Background

O3 Audience

04 Scope and Structure of the Guidelines

O5 Section 1: Best practice principles for sustainable cosmetic packaging design

Section 2: Best practice principles for ethical and sustainable sourcing & production of packaging

14 Section 3: Best practice principles post-consumption
- small-format cosmetic packaging
stewardship ('take back') schemes

20 Definitions



Purpose

These Guidelines define the principles that underpin a best-practice product stewardship approach for small-format cosmetic packaging in Australia.

'Small-format cosmetic packaging' is a term coined by the Australian cosmetic industry. It refers to cosmetic product packaging for which there is no established reuse pathway and that is not readily recyclable via the Australian kerbside system.

Although the volume of small-format cosmetic packaging waste is low¹ and this category is not a significant contributor to litter, the Australian cosmetic industry is committed to increasing the circularity of its packaging whilst maintaining product quality, consumer safety and brand appeal.



The overarching goals of these Guidelines are to:

- > promote **design optimisation** for small-format cosmetic packaging for product quality and safety, ease of consumer use, minimal product wastage and promotion of circular outcomes (reuse or recycling)
- > promote sustainable and ethical raw material sourcing for small-format cosmetic packaging
- > optimise sustainable end-of-life outcomes for small-format cosmetic packaging
- > minimise broader negative environmental impacts of small-format cosmetic packaging throughout its life cycle, including human health-, climateand biodiversity-related impacts
- > enable **flexibility** in approaches to achieve the above goals
- > ensure **rigour and transparency** in reporting outcomes and substantiating claims.

It is anticipated that these Guidelines will:

- > assist cosmetic product manufacturers in decision-making on sustainable packaging design
- > assist in the establishment of future effective product stewardship initiatives for small-format cosmetics, whether brand- or company-specific or industry-wide
- > assist in the evaluation of existing small-format cosmetic stewardship/extended producer responsibility (EPR) schemes or scheme providers/Producer Responsibility Organisations (PROs), helping individual companies 'weigh up' the different options
- > lift industry performance by decreasing waste to landfill
- > ultimately, promote environmentally beneficial decision-making and outcomes relating to small-format cosmetic packaging.

These Guidelines apply to actions that brand owners can consider for small-format cosmetic packaging that is not currently kerbside recyclable in Australia. However, the ideal future state is where all technically recyclable packaging materials, regardless of size, are accepted and recycled via the kerbside system. Whilst the cosmetics industry is committed to taking action to maximise positive outcomes, it is only one part of a complex value chain; action across the packaging value chain—including innovation and capacity increases by downstream actors such as collectors and material recyclers, as well as investment and support from governments—is essential to achieve the scale of outcomes that will deliver meaningful environmental impacts.

Additionally, the applicability of these Guidelines potentially extends beyond 'small-format' and the cosmetics sector. While these Guidelines articulate principles relating to small-format cosmetic packaging stewardship, and they were developed for this purpose, many of the principles relate to all packaging formats, regardless of size. Furthermore, as noted within the document, the cosmetic industry is open to collaborating with other sectors on product stewardship where this would strengthen outcomes and positive environmental impacts.

Background

Packaging function and challenges for small-format cosmetics



Packaging is essential in various industries to contain and protect goods, convey information, guide user experience and influence decisions. Its functions include:

- > protecting goods during storage, transport and use
- > contributing to the efficiency/performance of the product by facilitating access to and use of the goods
- > providing product information and contributing to product appeal.

Packaging fundamentally contributes to sustainability by protecting goods. Because the environmental impact of the goods usually outweighs that of their packaging, effective packaging is crucial to optimising goods usage and minimising wastage.

Packaging for small-format cosmetics serves all of the above functions, with some specific considerations due to the nature of these products and consumer expectations.

- > Protection: In addition to preventing damage. leakage and spoilage, packaging must shield products from light, air and moisture to prevent deterioration and ingredient evaporation over the life of the product (often many months). Tamper-proof packaging protects against contamination, which is important as cosmetic products are applied to the body and often close to the eyes, nose or mouth.
- > Accessibility: Product delivery often requires mechanisms such as pumps or sprays. In some cases, the packaging is essentially part of the product, such as a lipstick applicator, and contributes to its efficient use/performance by facilitating product access and application. These factors can add to the complexity of the packaging and make it harder to recycle.

- > Information: Small-format cosmetics must meet legal requirements for information disclosure, including mandatory ingredient lists and safety warnings, to ensure informed consumer choices.
- > Consumer appeal: Packaging design is crucial for product desirability/consumer appeal, brand recognition and differentiation. Tertiary packaging ensures that the primary packaging (and secondary, if used) remains undamaged during transport. Product visibility is also important, especially when the colour or shade is part of the product offering.

Challenges to achieving sustainable small-format cosmetic packaging

There are some specific challenges to achieving sustainability/circularity for small-format cosmetic packaging.

Material quality: Packaging material quality is crucial for small-format cosmetics. Since these products are applied to the body ('contactsensitive'), the packaging must be inert, preventing substance transfer to the product, often over many months. Plastic is often the best choice for small-format cosmetic packaging, so incorporating recycled content requires high-quality recycled plastic to guarantee safety. However, plastic recyclate in Australia currently does not often meet this standard.

Recyclability: The inherent small size of some small-format cosmetic packaging (and components of other, larger cosmetic packaging) can also limit its recyclability. Some small-format packaging materials may be fully recyclable but are too small to be captured by current waste sorting systems.

Complex design: Multi-component packaging and barrier layers, necessary for product protection and access, complicate sorting and reprocessing. Most Australian facilities cannot currently handle these materials



Scope and structure of the Guidelines

Scope - Products

These Guidelines apply to packaging for small-format cosmetic products. This includes primary packaging (the main container and its associated closure, components and labelling), secondary packaging (an outer package that contains one or multiple primary packages) and tertiary packaging (transport or business-to-business packaging).

Examples of small-format cosmetic products include blush, depilatories, eye make-up (eye shadow, eyeliner, eyebrow pencil, mascara), foundation, fragrance (cologne, perfume, eau de toilette), hair colour, lip products (lip balms, lip glosses, lipsticks), make-up remover, nail products (polish), shaving products (beard oil/wax, shaving foams, aftershave), skincare (anti-wrinkle, body balms, cleansers, moisturisers, masques, serums, toners), sunscreen and self-tan lotions.

Scope - Life cycle stages

The main stages of the packaging life cycle are design, material sourcing, production, distribution, consumption and post-consumption.

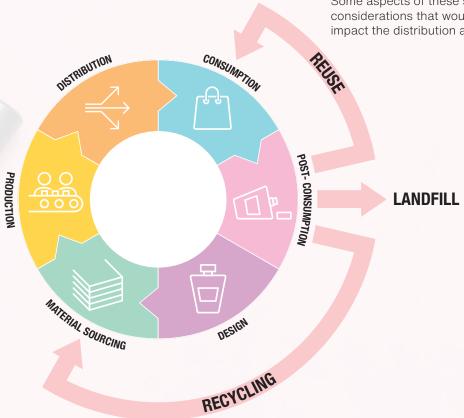
These Guidelines focus on the design, material sourcing and post-consumption stages of the packaging life cycle.

Structure

These Guidelines are divided into three sections.

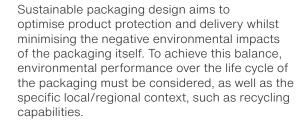
- The first section focuses on the design stage of the packaging life cycle, with best-practice principles for packaging design for small-format cosmetic packaging.
- The second section provides best-practice principles relating to sustainable and ethical packaging material sourcing.
- The third section focuses on the postconsumption stage, with best-practice principles for schemes that enable the collection and processing of used small-format cosmetic packaging.

Some aspects of these sections include considerations that would also positively impact the distribution and consumption stages.





Section 1:
Best practice
principles for
sustainable cosmetic
packaging design



Significantly, many small-format cosmetics are imported as fully finished goods into Australia, which means decisions on packaging are largely determined by the country of manufacture and their relevant packaging requirements. These principles have been compiled to help businesses think through packaging design holistically, and are anticipated to provide helpful guidance both for local manufacturers and for companies that work with their global counterparts on packaging design.

These principles have been derived from various sources, including those listed below.

- Australian Packaging Covenant Organisation (APCO) <u>Sustainable Packaging Guidelines</u>
- > APCO Quickstart Guides (for HDPE, PP, PET, fibre-based, soft plastic, glass, labelling, recovery)
- APCO <u>Packaging Recyclability Evaluation Portal</u> (<u>PREP</u>) tool and PREP Evaluation Questions (note – for APCO members only)
- CosPaTox Voluntary Industry Guideline: Safety assessment of recycled plastics in packaging materials for cosmetic products and home care products – Guidance for recycled PE, PP and LDPE
- > CosPaTox Substance List (Excel file) and Recyclate Calculator for Cosmetic Products & Packaging (Excel file)
- > DCCEEW list of Chemicals of concern in plastics
- > DCCEEW National Framework for Recycled Content Traceability
- World Packaging Organisation (WPO)
 Packaging Design for Recycling
- Sustainable Packaging Initiative for Cosmetics (SPICE) <u>Packaging Design & Circularity Guide</u> and <u>Ecodesign Tool</u>
- > Waste hierarchy

These principles apply to the design of:

- > Primary packaging and its closure, components and labelling
- > Secondary packaging
- > Tertiary packaging



Principle	Considerations
Benchmark	Is comprehensive data for existing packaging available (e.g., mass, volume, dimensions, type, tint, colour, rigidity of all materials, recycled content, inks, additives, adhesives, etc)?
Maximise product accessibility, minimise product residue/wastage	Is the primary package/product volume appropriate for the product type, considering factors including shelf life, typical usage frequency, product integrity and safety, etc?
	Is the primary package designed to maximise access to the product, considering the method of product application, any inaccessible corners, etc?
	Can innovations be implemented to minimise product wastage e.g., detachable components, new application methods, optimised dosages, etc?
	Is consumer guidance on minimising product wastage/sustainable consumption provided?
Optimise material efficiency	> Is all unnecessary packaging eliminated?
	In the primary container, is the product-to-packaging ratio a maximum— e.g., by lightweighting—without compromising product quality or safety, packaging functionality, consumer acceptance, recovery potential, etc?
	If secondary packaging is necessary, is it the minimum volume to contain and/or group the primary package/s?
Optimise transport efficiency	Is the primary and/or secondary packaging shape designed for stacking to minimise void space in tertiary packaging?
	Is tertiary packaging designed to minimise void space during transport?
Facilitate packaging reuse	Is a reuse/refill system possible for the primary packaging (noting that this will require whole-of-system changes and a designated, practical pathway for packaging return and refill)?
	Is a reuse system possible for tertiary (and/or secondary) packaging?
	Is the reusable packaging durable enough to enable sufficient reuse cycles to yield a positive net environmental outcome? (What is the minimum number of reuse cycles required to produce such an outcome?)
	Can suitable hygiene be guaranteed for refills of primary packaging?
	For refills of primary packaging, is the return/reuse system practical and attractive to consumers? Will there be/is there sufficient uptake? Does the return/reuse system minimise any environmental trade-offs (e.g., additional transport emissions, etc)?
	Is there a sustainable post-consumption outcome for any refill packaging (e.g., inserts, pouches, large-format dispensers) and for the primary packaging at the end of its useful life?



Principle

Enable recycling of packaging such that the highest value from materials is retained

Considerations

Is the primary (and secondary packaging, if applicable) designed for kerbside recycling, where possible?² Refer to APCO's Quickstart Guides on <u>Designing for Recyclability: Fibre-based packaging.</u> Glass packaging. <u>PET packaging.</u> HDPE packaging. PP packaging for further details, as well as the WPO's <u>Packaging Design for Recycling</u>.

Factors that promote recyclability include:

- reducing packaging complexity
- use of mono-materials where possible (i.e., one material type; if plastic, one polymer type) or materials that can be easily separated in the recycling process
- use of materials that can undergo multiple rounds of recycling
- use of compatible barrier layers/coatings (if needed)
- use of lighter colours to enable sorting and reuse; e.g, for PET and PP, transparent and unpigmented; for rigid HDPE, unpigmented or lightcoloured
- use of compatible closures
- use of compatible label materials and minimum label size (are labels easy to remove during the recycling process, so extensive manual or mechanical washing is not required?)
- avoiding materials that are not readily recyclable in Australia (e.g., PVC; glass that is toughened/decorative/frosted/opalescent)
- minimisation/removal of disruptors, including
 - carbon black
- darkly pigmented/opaque containers and closures
- metallic components in plastic packaging (including metals in inks)
- directly-printed containers
- inks that are toxic, bleed or contain metals
- barriers/coatings (if barrier requirements exist, there may be compatible options; e.g., for PP tubes, a silicon oxide or aluminium oxide barrier can be used³)
- full-sleeve labels, ultra-adhesive labels on glass
- · degradability additives
- optical brighteners
- hazardous chemicals, including toxic inks, PFAS
- mineral oils.



² For APCO members, PREP can be used to determine whether packaging is recyclable, non-recyclable or conditionally recyclable in Australia & New Zealand.

³ World Packaging Organisation, Packaging Design for Recycling.

Principle	Considerations
Maximise post-consumer recycled (PCR) content, where possible	> Will incorporating post-consumer recyclate in primary packaging compromise performance/product safety? (See CosPaTox references)
	For contact-sensitive products, is suitable PCR-containing primary packaging available? How is PCR quality verified?
	> Is PCR maximised in secondary/tertiary packaging?
	> Can PCR content be traced/verified?
Use lower environmental impact materials, where possible	Can renewable/biobased materials be used without compromising packaging functionality or disrupting packaging recyclability?
	 Can certified materials be used (e.g., FSC, SFI, PEFC certification for paper/cardboard)
Eliminate hazardous materials in packaging	Is fibre-based packaging made without per- and polyfluoroalkyl substances (PFAS)?
	> Is plastic packaging made without DCCEEW-listed 'chemicals of concern'?
	Is less than a combined total of 100 mg/kg (100 ppm) mercury, lead, chromium(VI) and cadmium present in all packaging (see <u>EU Directive 94/62/EC</u>)?
Provide consumer education on post-consumption pathway	Can the Australasian Recycling Label (ARL) be practically and usefully incorporated on the product label? Is there sufficient label space? For imported products, is a specific label for Australia/New Zealand feasible? Will the ARL instruction be available at the point of disposal of the primary packaging? Is the ARL instruction likely to still be applicable at the time of disposal, considering the usage duration of the product?
	Is information on the disposal of packaging for the product type available via Recycle Mate? Could the specific product be included on Recycle Mate (and updated as needed)?
	Are there other ways to communicate the post-consumption pathway to consumers? Could an e-label communicate disposal information (subject to regulatory requirements in different jurisdictions)?
Overarching principles	
Continuous improvement	Are design and materials regularly reevaluated, including as the availability of contact-sensitive PCR becomes increasingly available?
	> Are packaging supplier capabilities/technologies regularly reevaluated?
Work with suppliers	> Can you collaborate with packaging suppliers on packaging design?
	Can you collaborate with tertiary packaging suppliers or logistics providers on tertiary packaging reuse?



Principle	Considerations
Minimise broader environmental and social impacts of packaging	What are the impacts of packaging design choices on the material sourcing, production, distribution, consumption and post-consumption life cycle stages in terms of environmental aspects such as energy use, greenhouse gas emissions, climate change, biodiversity, etc?
	Is life cycle analysis (LCA) possible, and are data available to inform the optimum packaging design regarding environmental performance? ^{4,5}
	Have you considered packaging suppliers' environmental and social performance/commitments (e.g., commitments to 100% renewable energy use and ethical supply chains)?
Economic viability	> Is the packaging design economically viable for ongoing use?



⁴ The <u>SPICE Tool</u> can be used to measure the environmental footprint of cosmetic packaging and simulate other packaging scenarios to decrease impact.

⁵ There are few academic papers on the life cycle impacts of cosmetic packaging. One 2024 paper, 'Beducing the Environmental Impacts of Plastic Cosmetic Packaging: A Multi-Attribute Life Cycle Assessment', by Nicole Vassallo and Paul Refalo (Cosmetics 2024, 11(2), 34) as well as some of the references therein, may be helpful.



Section 2:
Best practice
principles for ethical
and sustainable
sourcing & production
of packaging

Ethical and sustainable sourcing and production aim to minimise or eliminate any negative social or environmental impacts arising from the raw material sourcing (raw material extraction or manufacture) and production stages of the packaging lifecycle.

Small-format cosmetic packaging is usually sourced from supply chain partners, who would source packaging raw materials and/or packaging components from their supply chain. Therefore, ethical and sustainable sourcing and production of small-format cosmetic packaging is, in essence, a supply chain management issue.

These principles have been derived from various sources (listed right) to encompass the main ethical and sustainability considerations associated with the raw materials and production stages of the packaging life cycle. Additional resources that may assist businesses are also listed. These principles do not attempt to differentiate between specific considerations for different packaging materials (e.g., paper-based, plastic, metal, glass) or origins of plastic (i.e., non-renewable or biobased, virgin or recycled).

Resources:

- > Ethical Trade Initiative (ETI) Base Code
- > International Labour Organization <u>Declaration on</u> <u>Fundamental Principles and Rights at Work</u>
- International Labour Organization <u>Fundamental</u> <u>Conventions</u>
- > International Labour Organization <u>Tripartite</u> <u>Declaration of Principles concerning Multinational</u> <u>Enterprises and Social Policy</u>
- > ISO 20400:2017 Sustainable procurement Guidance
- Organisation for Economic Cooperation and Development (OECD) <u>Guidelines for Multinational</u> <u>Enterprises</u>
- > UNICEF, UN Global Compact, and Save the Children Children's Rights and Business Principles
- > United Nations <u>Guiding Principles on Business</u> and <u>Human Rights</u>
- > United Nations <u>International Convention on the</u>
 Protection of the Rights of All Migrant Workers
 and Members of Their Families
- > United Nations <u>Tackling Discrimination against</u> <u>LGBTI People: Standards of Conduct for Business</u>
- > United Nations <u>Universal Declaration of Human</u> <u>Rights</u>



Principle	Considerations
Documented and enforced packaging supplier requirements	Do you have documented requirements for all packaging suppliers? Do they need to sign a Code of Conduct, relating to their operations?
	Are your supplier requirements communicated to all potential/new packaging suppliers?
	Do you have a documented process for assessing supplier performance/risk against your supplier requirements? Do you have a documented process for regular compliance checks of longer-term packaging suppliers?
	Do you only contract packaging suppliers that meet the documented requirements/sign a Code of Conduct? Are the requirements part of the contractual arrangement?
	Do you provide feedback to potential suppliers on areas where they need to lift performance to meet the documented requirements?
Ethical labour practices	> Do you require packaging suppliers to demonstrate adherence to the ILO Declaration on Fundamental Principles and Rights at Work and Fundamental ILO Conventions (i.e., covering forced labour, freedom of association and the right to organise, collective bargaining, equal remuneration, discrimination in employment and occupation, minimum age, OS&H, child labour, etc) within their own business?
	Does your supplier publish an annual Modern Slavery Report (mandatory or voluntary) that demonstrates a commitment to identifying modern slavery risks in their supply chains and to take action to address these?
	Specifically relating to packaging production, do you require your packaging suppliers to have suitable policies and processes in place to protect the health and safety of their workers (e.g., in relation to information, training, safeguards for hazardous chemicals, heavy machinery, ergonomics, etc)?
Protection of human rights	Do you require packaging suppliers to demonstrate their commitment to the protection of internationally proclaimed human rights (i.e., the relevant articles of the United Nations <u>Universal Declaration of Human Rights</u> and the United Nations <u>Guiding Principles on Business and Human Rights</u>)?
	Do you require packaging suppliers to have policies in relation to issues such as workplace discrimination, harassment and abuse?
	Do your packaging suppliers have a documented commitment to diversity, equity and inclusion in hiring?



Principle	Considerations
Integrity, corporate responsibility and compliance	Do you require your packaging suppliers to demonstrate due diligence in identifying, preventing and mitigating their actual and potential adverse social and environmental impacts?
	Are your packaging suppliers transparent and honest about their social and environmental performance (including care to avoid greenwashing)?
	Do your packaging suppliers adhere to all legal and regulatory requirements? Have there been any breaches of such requirements? If so, is there evidence that breaches have been rectified, practices changed and processes established to prevent similar breaches?
	Do your packaging suppliers have policies in relation to corruption and bribery, including safeguards for whistleblowers?
Positive community impacts	> Do your packaging suppliers engage positively with their local community?
	Do your packaging suppliers invest in practices with positive social outcomes (e.g., employment of local/disadvantaged workers, support for other local businesses, contributions to social impact organisations/ charities, etc)?
Environmental and social responsibility	Do you require packaging suppliers to adhere to commitments relating to environmental practices (e.g., to minimise environmental impacts of operational inputs and outputs, including water use, water outputs, energy use, energy sources, operational and transport emissions, etc)?
	Do your packaging suppliers avoid materials that contribute to deforestation and habitat destruction?
	Do your packaging suppliers ensure that the production of packaging raw materials does not disrupt/jeopardise essential food crop production? And that the land rights of small-holders are upheld (where applicable)?
	Do your packaging suppliers use certified materials where these are available and have meaningful and relevant impacts?
Maximise supply chain visibility, impact and engagement	Do you/your packaging suppliers have visibility over their packaging supply chains to the level of raw materials suppliers?
	Are there any high-risk situations in your packaging supply chain (e.g., areas with high levels of poverty, where there are lots of migrant workers, where workers have fewer protections, etc)? Is extra scrutiny of these areas employed?
	Do your packaging suppliers set suitable social and environmental requirements for their own suppliers to the level of raw materials? Are these requirements rigorous and enforced? Do your supplier requirements require this of your packaging suppliers?
	For recycled content, can the packaging supplier provide evidence for its provenance/quality/safety?



Principle	Considerations
Supply chain collaboration and continuous improvement	Could you educate or work collaboratively with your suppliers to influence their performance?
	Do you require suppliers to show a commitment to continuous improvement (e.g., in emissions reduction, supply chain mapping/scrutiny, transparency, etc)?
	Do you seek suppliers with a commitment to research and development (e.g., to develop new, more sustainable packaging materials and technologies)?
Procedures relating to remediation and rectification	Do your packaging suppliers have policies/plans in place, specifying measures to be taken in the event of allegations or incidents?
	Do your packaging suppliers have emergency contingency plans in place, specifying measures to be taken in the event of a major incident?
	When made aware of social or environmental issues in your supply chain, do you require your supplier/s to remediate these? Can you assist your packaging suppliers in this?
	In a worst-case scenario, do/would you cease working with a supplier that remains in breach of the supplier requirements or that cannot adequately demonstrate compliance, even if a long-term supplier?
Evidence basis	Is acceptable evidence for compliance with your supplier requirements clearly articulated (e.g., external accreditations, policies, attestations, memberships, etc)?
	Is acceptable evidence for the rectification of any breaches clearly articulated?
	Are suppliers evaluated on their environmental, social and governance performance through an external platform? Could you engage an external auditor to verify compliance with packaging supplier requirements?





Section 3:
Best practice principles
post-consumption –
small-format cosmetic
packaging stewardship
('take-back') schemes



In a circular economy, the post-consumption stage is crucial in keeping materials in circulation rather than going to landfill.

The following principles apply to product stewardship for small-format cosmetic packaging that cannot be designed for kerbside recycling (either due to limitations in the technologies available for cosmetic packaging or limitations in the capabilities of the Australian kerbside sorting and processing system).

These principles are designed to assist in establishing future effective product stewardship initiatives for small-format cosmetics and/or to assist individual companies in 'weighing up' their options regarding existing small-format cosmetic stewardship schemes or scheme providers.

These Principles apply to the:

- > Governance of product stewardship schemes for small-format cosmetic packaging
- Collection and processing of the primary container and any associated closures/ components

Governance

Principle	Considerations
Transparency	Is the scope of the scheme clearly identified (e.g., which items/materials are accepted, geographical coverage, etc)?
	Is the environmental fate of all collected materials clearly identified (e.g., recycled, waste-to-energy, landfill)?
	> Does the collector account for all incoming and outgoing materials?
	> Does the processor account for all materials received and processed?
	Does the scheme report publicly on material flows? Compared to the volume of small-format cosmetic packaging placed on the market?
	Does the scheme report publicly on other environmental metrics (e.g., energy saved, greenhouse gas emission reductions)?
	> Is the administrating organisation/point of contact clearly identified?
	Are all scheme participants identified (e.g., brands/businesses, collectors, processors)?
	Is the scheme audited regularly by an independent organisation? Are the audit findings publicly communicated?
	Are sources of revenue clearly identified and publicly reported?
	> Are uses of revenue accounted for and publicly reported?
Clearly defined objectives	Are the objectives of the scheme clearly defined (e.g., initial collection targets, initial diversion from landfill targets, acceptable post-consumption outcomes for recycled waste)?
	Are the objectives of the scheme SMART (specific, measurable, achievable, relevant and time-bound)?
	Are the objectives of the scheme suitable/differentiated for different material types and/or packaging formats? Do they consider collection, sorting and processing capabilities in Australia?
	Are the objectives of the scheme regularly reviewed and targets updated as whole-of-system improvements (e.g., in collection, sorting and processing) develop in Australia?



Principle	Considerations
Net environmental benefit	Does the scheme have capacity for significant volumes of relevant packaging waste (ideally 100%)?
	Does the scheme take a holistic approach to environmental impact (e.g., carbon emissions from the transport and processing of packaging waste are considered)?
	Does the scheme have an overall net environmental benefit? What evidence is provided for this?
Continuous improvement	Are higher-value recycling solutions prioritised/sought as whole-of-system improvements develop in Australia?
	Are targets regularly reviewed/increased (e.g., for higher collection volumes)?
	Does the scheme administrator continually innovate along their own value-chain to improve collection, processing, communications, promotion, forward-planning, etc?
Industry-funded	Is revenue obtained from the brand owners and/or industry/s placing the packaging on the market (e.g., via annual fees)?
Competition Law-compliant	For industry-wide or multi-party schemes, have the appropriate authorisations been obtained from the Australian Competition & Consumer Commission (ACCC)?
Not-for-profit	Is all revenue used exclusively within the scheme (i.e., for its operation, improvement, expansion, promotion/consumer awareness, etc)?
	Are fees to brand owners reassessed regularly in light of changing market prices/values?
	Are fees kept to the minimum required to enable the ongoing operation of the scheme, including its future growth and improvement?
Eco-modulation	> Are eco-modulated fees applied to encourage packaging design for higher-value post-consumption outcomes?
Maximise participation/minimise free-riders	Is broad industry participation encouraged/incentivised (e.g., through priority access to recycled materials for brand-owner participants, public communication of brand-owner participants, etc)?
Streamlined administration	Is there one administrator/coordinator for the scheme ⁶ that manages all aspects (e.g., fee collection, management of packaging collection, sorting and processing, data handling, promotion/communications, reporting, legal arrangements, etc)?
⁶ This function is often fulfilled by a Producer Responsibility Organisation (PRO), which is a separate entity that manages all aspects of a product stewardship scheme.	Is there one point of contact for all internal and external enquiries relating to the scheme?



Principle	Considerations
Agreements/contracts	Are formal agreements/contracts in place with all parties involved with the scheme (e.g., material collectors, material sorters, logistics and other service providers, material processors, brand owners, etc)?
Accuracy in communications	> Are all scheme communications/claims accurate and truthful?
	> Are all claims underpinned by robust data/evidence?
	> Are any conditions or qualifications relating to claims clearly explained?
	> Is all pertinent scheme information clearly communicated?
	Is any information, including any visual elements, misleading or open to misinterpretation?
Collection/return	
Principle	Considerations
Maximise consumer awareness	> Is promotion to consumers a budgeted focus of the scheme?
	Does consumer promotion cover a range of channels? Is it provided at the point of purchase? Is it reinforced regularly?
	> Are suitable partnerships sought/utilised to aid in consumer outreach?
	> Is the effectiveness of the promotion strategy regularly assessed?
Maximise ease of packaging return for consumers	Does the packaging return maximise convenience/minimise effort for the consumer (e.g., by utilising existing infrastructure/consumers' existing routines, requiring minimal packaging treatment—such as washing or disassembly—before packaging return)?
	Have different collection modes been researched/tested? Are proven-effective method/s used?
	Does the scheme minimise confusion/decision-making for the consumer (e.g., by clearly identifying which packaging it accepts, by accepting all relevant packaging, by accepting packaging with and without residue, etc)?
Economically viable packaging return pathway	> Is the packaging return method economically viable on a large scale?
	Is the packaging return method economically viable for remote as well as urban areas?



Principle	Considerations
Maximise material volumes ⁷ Excluding any pilot/testing stage ⁸ The Australasian Recycling Label classifies packaging as widely recyclable if over 80% of the population with kerbside recycling can recycle the item. Similarly, a product stewardship scheme could be considered 'nationwide' if at least 80% of the population can participate.	Does the scheme accept packaging from all brands? From all relevant product types?
	Has consumer reach been maximised? Does the scheme collect packaging nationwide? ^{7,8}
	Is the scheme robust enough to not be compromised by contaminant products/materials?
	Do other industries have similar packaging waste? Have partnerships been considered/initiated?
Minimise environmental impacts of packaging return	Does packaging return by consumers and to processors minimise environmental impacts such as energy for transport and greenhouse gas emissions (e.g., by minimising distances travelled, using existing transport, using existing systems/infrastructure, using reverse logistics, etc)?
	> Are processes in place to ensure full loads are transported to processors?
	Is the environmental benefit from returning the packaging greater than the impact of returning the packaging? What evidence supports this?
Processing	
Principle	Considerations
Prioritise higher-value recycling outcomes	Does the scheme achieve the highest-value environmental outcome possible for small-format cosmetic packaging (i.e., recycling into new packaging > downcycling to another product, e.g. road-base or outdoor furniture > waste to energy > landfill)?
Processor has suitable technical capabilities	> Can the processor effectively sort received small-format cosmetic waste?
and strives for improvement	Can the processor effectively decontaminate small-format cosmetic waste, if required, including removal of any product residue and labels?
	Can the processor deliver the highest-value recycling outcomes for all/most received packaging materials?
	Can the processor effectively process the volume of incoming waste/avoid stockpiling?
	Does the processor have clearly defined processes/procedures for all stages of waste processing?
	Does the processor have processes in place to continuously improve recycling outcomes/actively pursue new technologies/partnerships to expand capabilities?
	Does the processor collaborate and communicate with other scheme participants to optimise outcomes (e.g., on packaging design for recycling, on any requirements for packaging return)?



Principle	Considerations
Processor has suitable governance in place	Does the processor have suitable policies to address all aspects of waste processing management?
	Does the processor have adequate data collection and reporting capabilities?
	Does the processor have suitable legal arrangements in place (e.g., with any subcontractors)?
Environmental fate of all packaging materials is documented	Does the processor have processes to document the amounts of incoming waste? By different waste streams?
	Does the processor have processes to document the environmental fate of all materials received?
	Is the processor transparent about any lower-value environmental outcomes (e.g., landfilling, waste-to-energy) and why this is necessary?
Carbon emissions are quantified	Is the processor capable of quantifying the carbon emissions associated with processing?





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Biobased plastics	Biobased plastics originate from renewable inputs such as carbohydrates, vegetable fats and oils, bacteria and other biological substances. These are processed to obtain monomers which are polymerised, mixed with other ingredients as required and formed into packaging.
Circularity/circular economy	The circular economy is a model of production and consumption that reduces waste by extending the life cycle of materials and products—e.g., through sharing, leasing, reusing, repairing, refurbishing and recycling—as long as possible. This contrasts with a linear take-use-dispose model in which waste is generated.
Closure	The packaging components used to open or close the packaging for correct storage and dispensing/ use of the product. These include lids, pumps, sprays, droppers, caps, plugs and seals.
Contact-sensitive	Contact-sensitive packaging refers to packaging that comes in direct contact with products that have human (or animal) health and safety risks. The EU's proposed Packaging and Packaging Waste Regulations defines contact-sensitive packaging as plastic packaging for the following categories of products (according to their respective regulatory instruments): additives for use in animal nutrition, materials and articles intended to come into contact with food, animal feed, cosmetic products, medical devices, in vitro diagnostic medical devices, veterinary medicinal products, medicinal products for human use and dangerous goods. [Source: EU Proposal for a REGULATION on packaging and packaging waste]
Container	In this document, 'container' is synonymous with 'primary package'; that is, the packaging immediately containing the product.
Cosmetic	The definition of 'cosmetic' is in Section 9 of the Industrial Chemicals Act 2019. A summary can be found here.
Distribution packaging	The packaging used to distribute the product through the supply chain, also known as 'tertiary' or 'business-to-business' packaging.

Ecodesign	'Integrating into the development of a product or service the means to reduce its adverse environmental impact along its life-cycle while making it desirable for customers and profitable for the brand'. [Source: SPICE]			
Extended Producer Responsibility (EPR)	'EPR schemes are a type of product stewardship that places primary responsibility on the producer, importer and sometimes the seller of the product. Under this approach, producers or importers are required to fund activities to reduce the environmental, health and safety impacts of a product. It is a strategy designed to promote the integration of environmental costs associated with goods throughout their life cycles into the market price of the products.			
	'According to the Organisation for Economic Co-ordination and Development, an EPR scheme is characterised by			
	 The shifting of responsibility (physically and/or economically, fully or partially) upstream toward the producer and away from municipalities 			
	2. The provision of incentives to producers to take into account environmental considerations when designing their products. While other policy instruments tend to target a single point in the chain, EPR seeks to integrate signals related to the environmental characteristics of products and production processes throughout the product chain.' [Source: DCCEEW]			
Fibre-based packaging	Packaging made from plant fibres, e.g., paper and cardboard.			
Free-riders	'Businesses or organisations that may benefit from a product stewardship activity without contributing to its implementation or operation.' [Source: The Product Stewardship Centre of Excellence] Additionally, the Centre developed a participation strategy in 2021 that can be found here.			

HDPE	High-density polyethylene
Labelling	A key feature of most products, product labelling helps market the product, allows customers to differentiate between products and conveys important messages, including ingredients and instructions. In Australia, labelling must comply with the <i>Competition and Consumer Act 2010 (Cth)</i> .
Packaging	'All products made of any materials of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer.' [Source: European Environment Agency]
Packaging component	Any individual assembled part of a package, which may include the container, closure, label, ink, etc, as well as secondary and tertiary packaging.
PET	Polyethylene terephthalate
PP	Polypropylene
PREP (Packaging Recyclability Evaluation Portal)	PREP is an online platform that considers how the packaging shape, size, weight, inks, adhesives and materials used, as well as the availability of collection services, affects the behaviour of the packaging in a Materials Recovery Facility (MRF) and subsequent processing facilities. [Source: PREP]
Primary packaging	The primary packaging is the container directly containing the product. [Source: APCO]
Producer Responsibility Organisation (PRO)	A professional organisation that takes over the responsibilities of an obligated party subject to Extended Producer Responsibility (EPR).
Product stewardship	'Product stewardship acknowledges those involved in designing, manufacturing and selling products have a responsibility to ensure those products or materials are managed in a way that reduces their environmental and human health impacts, throughout the lifecycle and across the supply chain'. [Source: Product Stewardship Centre of Excellence]

Recyclable	A packaging or packaging component is recyclable if its successful post-consumer collection, sorting and recycling is proven to work in practice and at scale. [Source: SPICE, citing Ellen Macarthur Foundation]
Recyclate	'Any recovered scrap material from both preconsumer and post-consumer sources, either before or after reprocessing. It includes scrap plastics (before reprocessing), pellets, fines and flakes (after reprocessing), but excludes material sent to energy recovery'. [Source: DAFF Australian Plastics Flows and Fates Study 2019-20 National Report]
Renewable materials	'Materials that are continually replenished at a rate equal to or greater than the rate of depletion. Examples include cotton, hemp, maize, wood, wool, leather, agricultural by-products, nitrogen, carbon dioxide and sea salt. To fit in a circular economy such materials (where relevant) must be produced using regenerative production practices.' [Source: Ellen Macarthur Foundation]
Reusable packaging	'Packaging which proves its capability of accomplishing a minimum number of trips (or reuse cycles) in its life cycle within a purposefully designed system of reuse.' Reusable packaging must be used again in the same application for which it was originally designed. [Source: APCO Reuse vs Repurpose: Know the difference]
Secondary packaging	Secondary packaging includes the materials used to contain single or multiple primary packed products. Some secondary packaging is also distribution packaging. [Sources: APCO, NEPM]
Shelf-/use-life	The duration for which product quality and safety must be maintained, encompassing the time from product manufacture, through transport and storage, through consumer use.

Small-format cosmetics packaging	Coined by the Australian cosmetic industry represented by Accord Australasia, small-format cosmetic packaging encompasses cosmetic packaging for which there is no established reuse pathway and that cannot currently be recycled through the Australian kerbside system. This term was derived from one of the original primary obstacles to acceptability through kerbside recycling: the small dimensions of many cosmetic containers. 'Small-format' can also refer to small, removable components of larger packaging that cannot be recycled via the kerbside system.
Sustainable packaging	Sustainable packaging has minimal negative environmental impact whilst maintaining its functional requirements.
Synthetic plastic	Synthetic plastics originate from raw materials such as crude oil, natural gas or coal, which are extracted from the environment. These raw materials are refined via heating and fractionation into different chemicals, including monomers. Monomers are polymerised to form polymers, which are then compounded with any other ingredients in the plastic—which could include post-consumer recyclate—via melting, and mixed, then pelletised and extruded or moulded into the desired size, shape and thickness.
Tertiary packaging	'Tertiary packaging includes materials used to distribute packaged and unpackaged products, including pallets, wrapping stretch film, shippers, shrink film, strapping and cartons.' It plays an important role in enhancing logistics efficiency and protecting the product and other packaging levels during transport and warehousing. [Source: APCO]

Waste hierarchy

The waste hierarchy has many variations, but in essence, it is a hierarchy for the efficient use of resources prioritising avoidance of waste, followed by resource recovery, followed by disposal.

Reuse Material recycling back into packaging or high value products Material recycling into other products Organics recycling Energy recovery Landfill

Source: <u>APCO Quickstart</u> Guide, Design for Recovery - Reuse, Recycling or Composting

Virgin plastic

Plastics manufactured from previously unused resin. Virgin plastic could be from fossil-based (crude oil and natural gas) or bio-based feedstock.