



SPICE Insight: Optimizing Reusable Cosmetics Packaging Models

In Brief

The cosmetics packaging industry has been working for years on adopting **sustainable packaging strategies** in line with the 3Rs (Reduce, Reuse, Recycle). In parallel, more and more stringent regulations, such as the EU's Packaging and Packaging Waste Regulation (PPWR), increase pressures on the industry to have holistic packaging strategies beyond reuse. Yet, **packaging reuse** is still one of the under-tapped opportunities of such strategies. Understanding the environmental impact of reusable packaging **is crucial** for companies to move towards a more circular approach.

That is why **SPICE released its Reuse Guidelines**. Through LCA calculations and the detailed analysis of **seven case studies**, the report uncovers **key parameters that influence the environmental performance of 4 main reusable packaging models** (refill at home, refill at point of sale, return at home, return at point of sales).

Amongst the levers identified, SPICE advises to design primary refillable packaging to be as durable and light as possible, and reusable as many times as possible while guaranteeing high packaging quality. However, to guarantee the success of reuse models, companies should consider **critical levers beyond packaging design**, such as **consumer adoption** and **economic viability**.

How did SPICE study reuse scenarios

After careful selection of most representative cosmetics packaging, SPICE analysed them through **four reuse models**: refill at home, refill at point of sale, return at home, return at point of sales (*Figure 1*).

Using **Life Cycle Assessment (LCA) metrics** compliant with the EU Product Environmental Footprint (PEF) and its 16 impact factors, and a robust methodology used in the SPICE tool, SPICE evaluated whether various parameters, such as **material selection, washing logistics, and reuse cycles**, had a role on the reusable packaging's environmental impact.

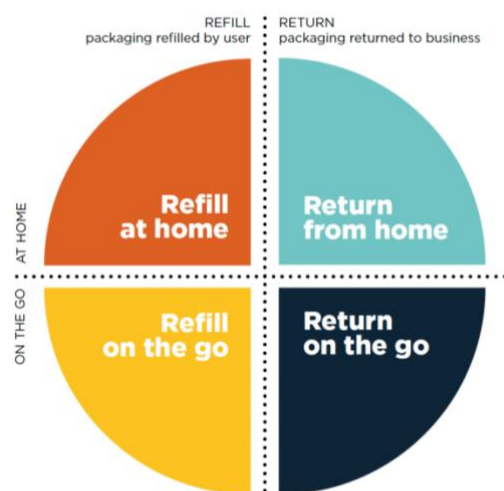


Figure 1: The four primary reuse scenarios studied in the SPICE Reuse Guidelines

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This collaborative effort, based on an original Reuse initiative from L'Oréal, involved contributions from SPICE members including Unilever and LVMH, and external partners like CITEO, FEBEA and Ellen MacArthur Foundation. This ensured alignment with existing frameworks and with the cosmetics industry's specificities.

SPICE Reuse Guidance Key Findings

1. Companies should balance packaging circularity and environmental impact

No matter the reuse model, **reusable packaging usually presents a reduced environmental impact** compared to an **equivalent single use packaging**. However, in some instances, **trade-offs can happen** depending on material weight, return logistics performance, and the number of reuse cycles. It is thus recommended to **design the primary refillable packaging to be as durable and light as possible**, and **reusable as many times as possible**.

2. Depending on the chosen reuse model, specific parameters can be triggered to reduce impact

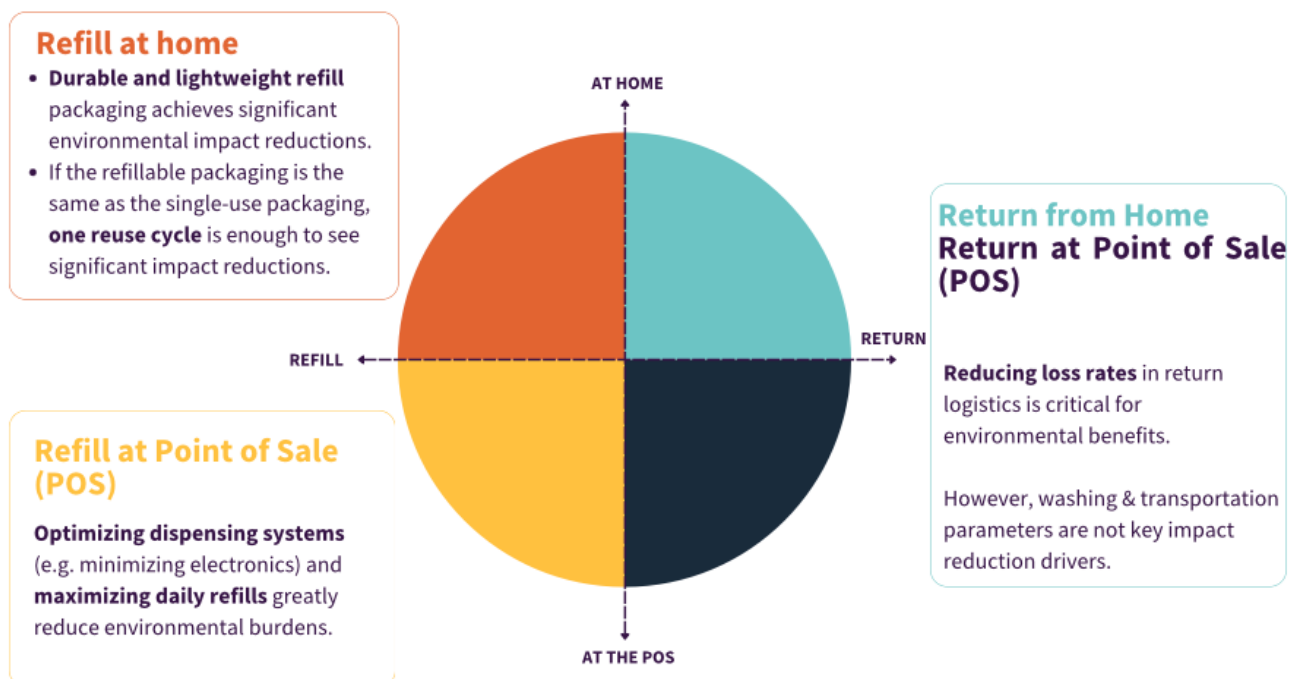


Figure 2: Impact reduction levers to be leveraged depending on the chosen reuse model

SPICE Recommendations To Reduce Reusable Packaging's Environmental Impact

Based on the scenarios studied, SPICE recommends activating the following levers to reduce the environmental impact of reuse packaging models:

1	DESIGN LIGHTWEIGHT, DURABLE PACKAGING	Prioritize materials that reduce production and transportation impacts while enabling extended reuse .
2	MAXIMIZE REUSE CYCLES	Encourage consumers to reuse packaging multiple times, ideally between 3 and 5 times , to offset its initial environmental cost
3	OPTIMIZE REVERSE LOGISTICS	Reduce loss rates and streamline transportation systems for returned packaging
4	ENHANCE DISPENSING SYSTEMS	Develop efficient, shared systems with minimal reliance on energy-intensive electronics , and maximise their use.
5	EDUCATE CONSUMERS	Promote reuse behaviors through awareness campaigns and clear communication on reuse benefits & purposes

Conclusion

Along with reduction & recyclability, packaging reuse is a key pillar of sustainable packaging strategies. **By activating the right eco-design levers** - outlined in the SPICE Reuse Guidelines - and adopting reusable packaging aligned with regulatory requirements, **the cosmetics industry can significantly reduce the environmental impact of its packaging.**

However, the success of reuse models does not only depend on environmental impact optimization. Other critical factors, such as **consumer adoption** and **economic viability**, should be considered. **Encouraging consumers to reuse packaging multiple times amplifies environmental benefits, while simultaneously enhancing the economic feasibility of these models.**

Integrating sustainability, usability, and economic practicality of reusable packaging is the recommended approach to build holistic, circular packaging strategies, and to effectively drive environmental footprint reduction of the packaging cosmetics industry.