

# Rethinking Packaging: From Single-Use Plastics to a Circular Economy

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The concept of waste became more pronounced and commercialized in the 1950s, when other materials began replacing traditional reusable models such as milkman-delivered glass bottles, clay pots, and wooden barrels. With societal progression, packaging techniques also evolved. With technological advancements, single-use “disposable” packaging became more popular due to its convenience and affordability. Today, waste is not just a piece of litter on a hiking trail or a water bottle on a beach; it has turned into a global crisis. (Szaky)

Industries once dominated by metals and renewable materials like wood and cotton have shifted to plastic. Plastic evolved from being a prototype to a widely used lightweight, cost-effective, and flexible mode of transporting goods. Businesses are responsible for this shift. Their versatility made plastic packaging rise in the consumer market covering everything from food to electronics and household items. However, plastic recycling has not kept pace with the continued demand for plastic production. Unfortunately, plastic packaging is often thrown out as soon as the product is opened or used. Moreover, this waste typically ends up in landfills or incinerators. This entire process of manufacturing, usage, and disposal has contributed to a linear economy, where waste too often goes in one direction: to the garbage. (Szaky)



Photo by [Kanvag](#)

Landfills and Incineration, common waste management options, produce air emissions, causing a significant environmental threat. The severe impact of plastic is not limited to air pollution, but it makes its way to the farthest reaches of the planet where it threatens human and marine life. (Print) Reports suggest that by 2050 the oceans will contain more plastic by weight than fish (MacArthur, Waughray and Stuchtey). Degrading plastics in soil and waterways absorb toxic chemicals like PCBs (Polychlorinated Biphenyls) and pesticides, which then enter the food chain, reaching humans through seafood consumption.



Figure 1: Circular Economy (Image by [Freepik](#))

There is no doubt, that the access to products and services has increased with plastic both literally and financially and it has also driven up consumer consumption. Innovation thrives with it, and industry has been dependent on it. This makes it a very complex issue. Even the biggest manufacturers struggle to find a way forward between innovation, growth, and sustainability. In contrast to linear economy, both businesses and consumers can adopt dual-use packaging and a circular economy. The dual-use packaging method can be designed to help consumers to serve the function of after first product use like reusable cloth bags. (Szaky) On the other hand, circular economy is about keeping and using those materials as long as possible in value and supply chains. Figure 1 represents a closed-loop system that aims to minimize the use of resource inputs and reduce waste, pollution, and carbon footprint. It is a flipped perception how the negative impacts can be reduced to build something better to have a positive impact on the system. (E. MacArthur)



Photo by [Kaleb](#)

Packaging has come a long way from its simple origins. Calling an end to single-use plastic is much easier said than done. Industries, businesses, consumers who demand it and the government that allows it have a shared responsibility to work on these issues. Products reflect consumer desires; therefore, incorporation of pro-environmental habits should be done. These habits can be defined as changing from non-ecological to more ecological like buying recyclable or renewable materials or supporting brands which make use of post-consumer waste to make their products. Being mindful of how items will be disposed of at the end of their life can play a fundamental role in creating a sustainable future.

(Lopes, Pinho and Gomes) A shining example of a company following this practice is Royal Canin, a brand under Mars Pet Care, based in the United States. Together, they developed a sustainable solution for home deliveries. Customers receive their orders in reusable packages, which can be returned via the postal system at no cost. Once returned, these packages are cleaned and reused, adding value at each stage of their supply chain (Ballester).

Ultimately, achieving a sustainable future requires a collective effort. Industries must innovate, governments must enforce regulations, and consumers must adopt mindful habits. By working together, we can shift towards a circular economy and create a world where resources are preserved, and waste is minimized. Eliminating waste in our life and the world will depend on one principle: Consume Differently. (Szaky)

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