

Towards a life-cycle driven circular economy

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- **Striving for a resource-efficient and competitive Europe**
In January 2018, the European Commission published its strategy for plastics in a circular economy. While this strategy clearly focuses on measures necessary to improve the recycling of plastics, it is important to stress that in order to become truly sustainable, overall resource efficiency must be maintained as one of the driving forces behind both waste and product-related measures.
- **The importance of life-cycle thinking for a truly sustainable Europe**
Product-related measures, including requirements under Extended Producer Responsibility schemes, should not only focus on recyclability and reusability at the end-of-life, but also on the benefits for the environment provided during the entire life-cycle. For example, packaging is designed to use less raw materials for its production (thus also generating less packaging waste). Packaging is also designed to protect goods from damage during transport and, when it comes to food, to increase shelf life – thus maximising the resource efficiency of packed goods throughout their life and minimizing food waste. Targeting 100% reusable or recyclable packaging by 2030 in a cost-effective manner, as recently proposed by the European Commission, requires checking that it does not negatively impact the environmental performance of the packed product from an overall life-cycle perspective. With this in mind, in January 2018, PlasticsEurope published its [Voluntary Commitment](#) to reach 60% re-use and recycling for plastics packaging by 2030.
- **Optimum level for plastics recycling needs to be increased**
The Vision for Europe's New Plastics Economy published by the European Commission targets more than 50% plastics waste generated in Europe being recycled by 2030. A study by [denkstatt](#) (2014) shows that there is an optimum level for plastics recycling, which provides a positive balance between economic and environmental costs and benefits. This level depends on collection, sorting and recycling conditions and should evolve over time with new technologies becoming available. Eco-design with plastics for sustainable products during their entire life cycle is a driver for innovation. This requires a value-chain approach and further support to make ambitious recycling targets both economically and environmentally viable.

Key recommendations:

1. Ensure that measures follow a life-cycle approach

The benefit of redesigning a product with the sole aim of pushing it up the waste hierarchy at its end-of-life should be assessed on a case-by-case basis. Improvements of the environmental impact in a particular life-cycle phase of a product should only be made after verifying first that the overall environmental impact over the entire life cycle is indeed positive.

2. Ensure that all packaging is separately collected

As a precondition to achieve the challenging plastics packaging recycling targets, all plastics packaging needs to be collected separately from residual waste. In addition, to optimise the economics and only where this does not jeopardise high-quality recycling, co-mingled collection of plastics packaging with other packaging materials or recyclables is recommended.

3. Ensure that the use of recycled material be decided by products manufacturers

The use of recycled content in a product is not always technically feasible or economically viable. Due account also needs to be taken of product safety rules and consumer health. The possibility to use recycled material varies greatly from one application to another and it is therefore impossible to have a general rule imposing a defined level of recycled content. The market acceptance and consumer behaviour using recycled products as well as boosting the ecological waste treatment and separation at end of life will drive a truly circular economy.