PlasticsEurope
Association of Plastics Manufacturers

Towards a life-cycle driven circular economy

May 2016

- **Striving for a resource-efficient and competitive Europe**
  In December 2015, the European Commission published a revised Circular Economy Package, including proposals revising waste legislation and an Action Plan. Striving for sustainable solutions, it is important that overall resource efficiency, which is in most cases predominated by the use phase, is maintained as one of the driving forces behind both waste- and product-related initiatives stemming from the package.

- **The importance of life-cycle thinking for a truly sustainable Europe**
  Product-related measures, including measures on Extended Producer Responsibility, should not only focus on recyclability and reusability at the end of life but on the entire life-cycle benefits. For example, packaging is designed to use less raw materials for its production, to protect goods from damage during their transport, and to enhance shelf life – thus maximising the resource efficiency of packed goods throughout their life while also taking end-of-life recovery into account. Developing packaging that can only be recycled with existing mechanical recycling technologies can result in a product having an increased environmental impact from a broader life-cycle perspective.

- **There is an optimum level for plastics recycling**
  Mechanical recycling of plastics is increasing with improved collection systems, more efficient identification, sorting and processing technology, consumer engagement and individual product design. A recent study by *denkstatt GmbH* shows that there is an optimum level for plastic recycling (currently between 35% and 53% for packaging), which provides a positive balance between economic and environmental costs and benefits. Above this, i.e., when it cannot be sustainably recycled, plastic waste should be used for energy production to avoid landfilling. Additionally, innovation is underway and needs further support in order to develop economically and environmentally viable chemical recycling technologies to produce feedstock for the production of virgin polymers and other organic chemicals from those materials that are today not recycled.

Key recommendations:

1. **Ensure that all packaging is separately collected**
   In order to divert plastic packaging waste from landfill and as a precondition to achieving the challenging plastic packaging preparing for reuse and recycling targets, all plastic packaging needs to be separately collected. In addition, in order to optimise the economics and where this does not jeopardise high-quality recycling, co-mingled collection of plastic packaging with other packaging materials is recommended.

2. **Make sure in-house preparing for reuse practices which contribute to the Circular Economy count towards the targets**
   In-house preparing for reuse practices for plastic transport packaging operated by companies should count towards the target, since they also contribute to the Circular Economy by avoiding the need to purchase new transport packaging. Further clarification of the definition of preparing for re-use is also required.

3. **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. Indeed, improvements in the environmental impact of a particular phase of a product should not be made without first verifying that the overall environmental impact is indeed positively affected.

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