

View Paper On biodegradable plastics

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The Biodegradable plastics group of PlasticsEurope welcomes the Commission's aspirations to turn Europe into a circular economy as a response to the growing pressure of production and consumption on the world's resources and environment and believes that biodegradable plastics have an important role to play in this transition. In order to be able to do so, a long-term policy framework must be established so as to, among other things, promote and maintain investment in production and R&D in this area in Europe.

The European plastics manufacturing industry aims at providing sustainable solutions and strives to increase the performance of its products while at the same time to provide innovative solutions for their end-of-life in order to make an efficient and optimized use of resources within the economy. Biodegradable plastics have a great contribution to make in this regard.

- 1. To turn biodegradable plastic waste into a resource, the right waste management options need to be in place**
- 2. European and international standards are important means to support an optimised and qualified waste management**
- 3. Biodegradable plastics in innovative applications**
- 4. Increased awareness and education on proper use and sound waste management practices for biodegradable plastics should be supported and promoted**

1. To turn biodegradable plastic waste into a resource, the right waste management options need to be in place

While waste prevention is *the* priority and should remain so, one of the preconditions for making a more circular economy is to turn the products which do end up as waste into valuable resources. This has been a fundamental part of the research carried out by the plastics industry, including in biodegradable plastics.

Biological treatment (e.g. composting or digestion) together with other bio-waste, is the preferred recycling option. It is a way of turning biodegradable plastic waste into a valuable resource: compost, which can then be used for soil fertilisation. For this to happen, however, it is important to use biodegradable plastics in applications which can be recovered and processed after use. PlasticsEurope is therefore calling, among other things, for the mandatory separate collection of bio-waste together with waste which has similar biodegradability and compostability properties.

In addition, when efficient waste management systems are in place, including appropriate sorting and treatment operations, biodegradable plastic waste, like other plastic waste, can also be recycled and converted into new products via feedstock (chemical) recycling and mechanical

recycling. High quality management of well-sorted and treated waste streams will contribute to improved recycling. When post-consumer waste does not fulfil quality criteria or cannot be separately managed as described above, then other recovery routes must be pursued.

2. European and international standards are important means to support an optimised and qualified waste management

To ensure that biological treatment, such as composting, remains at all times a viable waste management option, biodegradable plastics have to meet stringent standards which have been developed over time by both European and international standardisation bodies.

These standards cover test methods to confirm biodegradability and compostability of materials and products (e.g. EN 13432¹ for compostable packaging), and related guidelines for characterisation, labelling and identifications are currently being developed.

Not only should all biodegradable plastics comply with the relevant and appropriate standards, but the resulting compost and digestate should also comply with appropriate standards for complete compostability and plant safety as well.

3. Biodegradable plastics in innovative applications

Most commercial biodegradable plastics are used in applications where the biodegradable characteristics offer tangible advantages. Current concrete examples can be found in the waste collection sector and agriculture:

Biodegradable plastics can be used to make food waste bags for the collection of food waste, allowing the bag to be composted together with its biodegradable content, thus simplifying separate collection systems of bio-waste while providing a hygienically safe solution and ease of handling for its recovery.

Biodegradable mulch films are used in agriculture to minimise water loss, the need for plant protection agents and to help with weed control. The advantage of using biodegradable films is that they completely biodegrade in soil, leaving only biomass and thus avoiding the need for mechanical removal. A European standard EN 17033 for biodegradable mulching films which will specify the requirements is expected in 2017.

4. Increased awareness and education on proper use and sound waste management practices for biodegradable plastics should be supported and promoted

While standards are the first step to ensuring conformity uniformly harmonized system, it is crucial for consumers to be informed about the proper disposal of biodegradable plastics so that they contribute to a circular economy. Such plastics should therefore be appropriately labelled.

Moreover, in order to ensure that further composting or recycling is not jeopardized, environmental claims regarding biodegradability or compostability should comply with already existing standards or future standards currently being developed by CEN such as that on soil biodegradable mulch film².

¹ European Standard EN 13432 on “Requirements for packaging recoverable through composting and biodegradation - Test scheme and evaluation criteria for the final acceptance of packaging”

² A European standard EN 17033 for biodegradable mulching films is expected in 2017.

For further information, please contact:

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