

STATEMENT

Biodegradable plastics needed to increase recycling efficiency

Berlin, 21 September 2017 – In the light of the current debates and consultations on the upcoming EU Strategy on Plastics and the revision of the EU waste legislation, European Bioplastics (EUBP), the association for the bioplastics industry in Europe, echoes the call for greater investments in the implementation of separate recycling streams, made by the association of Plastics Recyclers Europe (PRE) earlier this week. In a press release, PRE calls for the development of separate recycling streams for biodegradable* plastics to improve waste management efficiency throughout Europe. EUBP supports these efforts to ensure a high quality of recycled plastics. In order to implement a circular economy throughout Europe and to achieve higher recycling rates, stronger investments in the modernisation of the waste management infrastructure, including separate mechanical and organic recycling streams, are needed.

Biodegradable plastics help to reduce contamination of mechanical recycling streams by facilitating separate collection of biowaste and therefore diverting organic waste from other recycling streams. Organic recycling is a well-established industrial process ensuring the circular use for biodegradable plastics while creating a strong secondary raw material market and opportunity for renewable energy generation. Numerous beacon projects throughout Europe demonstrate the positive effects of compostable bags on the efficiency and quality of separate organic waste collection, including in the cities of Milan, Munich, and Paris.

Currently, the share of biodegradable plastics designed for organic recycling sold in the EU is comparatively small. Therefore, the potential of misthrows by the consumer to reach a critical volume that could impact the quality of mechanical recycling streams is an unreasonable assumption at this point in time. This has also been tested and confirmed in a recent study by the University of Wageningen, which analysed biodegradable plastics in mechanical recycling streams and detected levels not higher than 0.3%. When tested within the EU FP7 Open-Bio project, Wageningen Food & Biobased Research found that there were no negative effects on the properties of recycled film products containing starch film and PLA film recyclates. If biodegradable plastic products do, however, enter mechanical recycling streams, they can easily be sorted out. Research by Knoten Weimar, a scientific knowledge-cluster and institute at the Bauhaus-University Weimar focussed on optimising utilities and waste infrastructures, shows that available sorting technologies such as NIR (near infrared) can easily detect biodegradable plastic materials such as PLA (polylactic acid), PBAT (polybutylene adipate terephthalate), and other starch or cellulose based materials.

On the other hand, however, contamination of organic waste streams by misthrows of non-biodegradable plastics is high and constitutes a real problem for composting facilities and negatively affects the quality of compost. This problem can only be tackled by establishing mandatory separate collection of organic waste supported and facilitated by the use of biodegradable plastic bags and packaging and accompanied by consumer education and information on correct ways of organic and mechanic recycling.

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EUBP urges all involved stakeholders to consider recycling as both mechanical and organic recycling and to contemplate the corresponding plastic materials in this context. Furthermore, investments into sound waste management infrastructure across Europe as well as comprehensive projects to increase the consumers' knowledge about correct disposal need to be considered. Only then, recycling can become more efficient, contamination can be limited, and a strong secondary raw material market in a circular economy will flourish.

For more information, please see the following expert statements and studies on this issue:

- Wageningen Food & Biobased Research (2017): Biobased and biodegradable plastics – Facts and Figures: <https://goo.gl/ySM4Nw>
- Knoten Weimar: Entsorgungswege und Verwertungsoptionen von Produkten aus biobasierten Polymeren des post-consumer Bereichs: <https://goo.gl/VB2cvA>

**A clear distinction has to be made between biodegradable plastics and so-called 'oxo-degradable' plastics, which can be mixed up if unclear terminology such as 'degradable' plastics is used. As oxo-degradable plastics are conventional plastics with additives and not biodegradable or bio-based plastics, they should not be linked or named in the same context as bioplastics.*

About European Bioplastics:

European Bioplastics (EUBP) is the European association representing the interests of the bioplastics industry along the entire value chain. Its members produce, refine and distribute bioplastics i.e. plastics that are bio-based, biodegradable, or both. More information is available at www.european-bioplastics.org.

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