

Plastic Food Contact Materials and Circular Economy

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Abstract

According to Plastics Europe, plastics account for 1% of all EU countries post-consumer waste, of about 29M tonnes per year. 61% of this amount comes from packaging. The European Commission's new Packaging and Packaging Waste Directive (PPWD) amends the methodology used to calculate packaging recycling rates by measuring recycled quantities at a later stage of the recycling process. Depending on their quality, recycled plastic can be used in various applications, such as: building and construction (46%), packaging (24%), agriculture (13%) etc.

Plastics represent the most important class of food contact materials (FCMs). Framework Regulation (EC) no. 1935/2004 states that FCMs may not endanger human health or bring about changes in composition, smell or taste of the food. All FCMs should be produced according to good manufacturing practices (GMP) as regulated by Regulation (EC) no. 2023/2006. The Framework Regulation also allows the development of implementing measures for specific materials. Regulation (EU) no. 10/2011 on plastic materials and articles intended to come into contact with food is such an implementing measure addressing specifically to plastics.

The aim of this study is represented by the safety aspects of plastic FCMs in the context of circular economy, taking also into account that recycling is currently seen as an important measure to manage packaging waste, but also only one of many complementary tools for providing environmentally-friendly and safe food packaging. Sustainable food packaging in the circular economy may only be achieved by combining such efforts, considering any conflicting goals and involving all stakeholders.