Continued growth: global production capacities of bioplastics 2022-2027

Bioplastics currently represent still less than one percent of the more than 390 million tonnes of plastic produced annually.

After stagnating in 2020, mainly due to Covid-19, the overall global plastic production increased again in 2021. With regards to bioplastics production capacities projected for 2022, there is new momentum as well. This development is driven by rising demand combined with the emergence of more sophisticated applications and products. Global bioplastics production capacity is set to increase significantly from around 2.23 million tonnes in 2022 to approximately 6.3 million tonnes in 2027.

Material development and diversification

Bioplastic alternatives exist for almost every conventional plastic material and corresponding application. Due to a strong development of polymers, such as PHA (Polyhydroxyalkanoates), polylactic acid (PLA), PAs (polyamides) as well as a steady growth of Polypropylene (PP), the production capacities will continue to increase significantly and diversify within the next 5 years.

Global production capacities of bioplastics 2022 (by material type)  

Global production capacities of bioplastics 2027 (by material type)

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Applications and market segments

Bioplastics are used for an increasing variety of applications, ranging from packaging and consumer products to electronics, automotive, and textiles. Packaging remains the largest market segment for bioplastics with 48 percent (1.07 million tonnes) of the total bioplastics market in 2022.

Land use share for bioplastics estimated to be at 0.015 percent of the global agricultural area

The land used to grow the renewable feedstock needed to produce bioplastics is estimated to only slightly increase to approximately 0.8 million hectares in 2022. This accounts for around 0.015 percent of the global agricultural area of roughly 5.0 billion hectares. Along with the projected increase of bioplastics production in 2027, the land use share is expected to increase to around 0.06 percent. In relation to the available agricultural area, this share is minimal. Thus, there is no competition between the renewable feedstock for food and feed and the production of bioplastics.

About this market data update

The market data update 2022 has been compiled in cooperation with the market experts of the nova-Institute (Hürth, Germany). The market data graphs are available for download on http://www.european-bioplastics.org/news/publications/