

# Market update 2020: Bioplastics continue to become mainstream

## Global bioplastics market is set to grow by 36 % over the next five years

The results of the European Bioplastics' (EUBP) annual market data update, presented on 2 December 2020 at the 15<sup>th</sup> EUBP Conference, confirm the continued dynamic growth of the global bioplastics industry. Bioplastics represent about 1 % of the more than 368 million t of plastic produced annually. But as demand is rising, and with more sophisticated applications and products emerging, the market for bioplastics is continuously growing and diversifying. Global bioplastics production capacity is set to increase from around 2.11 million t in 2020 to approximately 2.87 million t in 2025. Innovative biopolymers, such as bio-based PP (polypropylene) and especially PHAs (polyhydroxyalkanoates) continue to drive this growth.

"Our industry has successfully weathered the challenges posed by the Covid-19 pandemic. And the outlook for bioplastics is also promising as the global market is predicted to grow by 36 % over the next five years", said **François de Bie**, Chairman of European Bioplastics.

Since PHAs entered the market, the share of this important polymer family continued to grow. Production capacities are set to increase successfully almost sevenfold in the next five years. The production of polylactic acid (PLA) will also continue to grow due to new investments in PLA production sites in China, the USA, and in Europe. Currently, biodegradable plastics account for almost 60 % of the global bioplastics production capacities. PHA and PLA are bio-based, biodegradable, and feature a wide array of physical and mechanical properties.

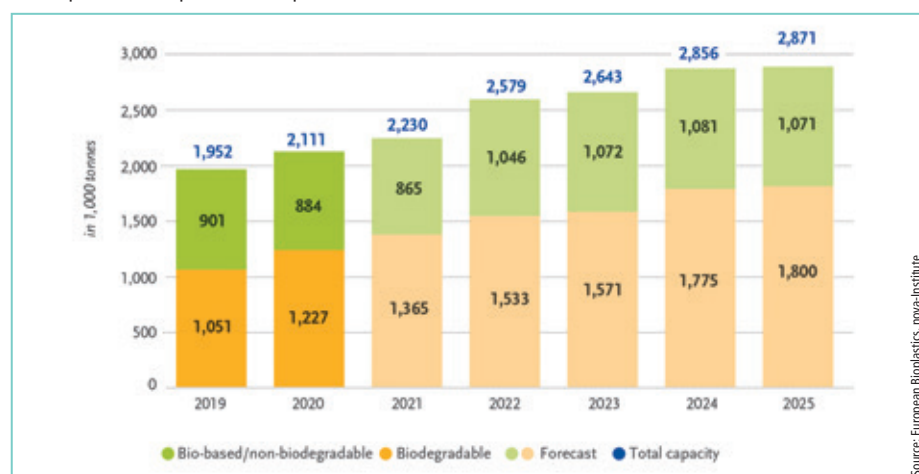
Production capacities of bio-based PP are set to more than triple by 2025. This is due to the widespread application of PP in a wide range of sectors. PP is a very versatile material that features very good barrier properties and is one of the most widespread commodity plastics. A bio-based version of this olefine has been awaited for many years. Bio-based, non-biodegradable plastics, including the drop-in solutions bio-based PE and bio-based PET (polyethylene terephthalate), as well as bio-based PA (polyamides), currently make up for 40 % (0.8 million t) of the global bioplastics production capacities. For bio-based PE, new capacities are planned to come on-line in Europe and South America over the coming years. In contrast, bio-based

PET will contribute only a small share to the overall capacities. Intentions to increase production capacities have not been realised at nearly the rate predicted in previous years. Instead, the focus has shifted to the development of PEF (polyethylene furanoate), a new polymer that is expected to enter the

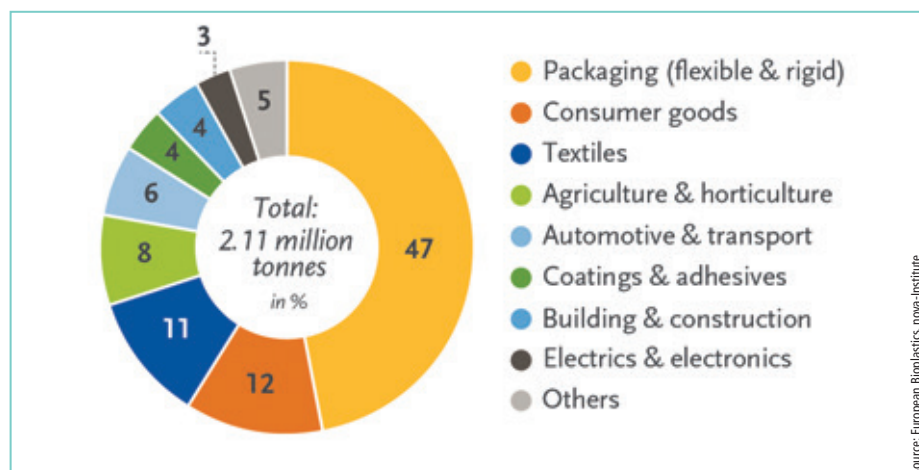
market in 2023. PEF is comparable to PET but is fully bio-based and furthermore features superior barrier properties, making it an ideal material for beverage bottles.

Packaging remains the largest field of application for bioplastics with almost 47 %

Global production capacities of bioplastics 2019 – 2025



Global production capacities of bioplastics in 2020 (by market segments)

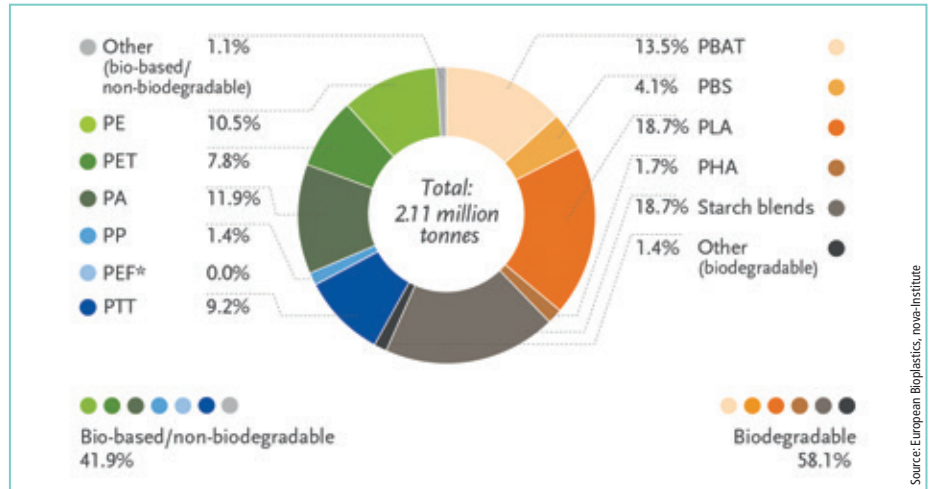


(0.99 million t) of the total bioplastics market in 2020. The data also confirms that bioplastics materials are already being used in many other sectors, and the portfolio of application continues to diversify. Segments, such as consumer goods or agriculture and horticulture products, continue to increase their relative share.

With a view to regional capacity development, Asia remains a major production hub with over 46 % of bioplastics currently being produced there. Presently, one fourth of the production capacity is located in Europe. This share is predicted to grow to up to 28 % by 2025. "Recently, significant investments have been announced by our industry, also in the heart of the European Union. Europe is set to become a key producer of bioplastics. The material will play an important role in achieving a circular economy. The 'local for local' production will accelerate the adoption of bioplastics in the European market", said **Hasso von Pogrell**, Managing Director of European Bioplastics.

According to EUBP, the land used to grow the renewable feedstock for the production

Global production capacities of bioplastics in 2020 (by material type)



of bioplastics is estimated to be 0.7 million ha in 2020 and continues to account for 0.015 % of the global agricultural area of 4.7 billion ha. Despite the market growth predicted in the next five years, the land use share for bioplastics will only slightly increase to 0.02 %.

„We do not weary of emphasising that there is no competition between renewable feedstock for food and feed, and the use for bioplastics" said von Pogrell, "94 % of all arable land is used for pasture, feed and food."

The market data update 2020 has been compiled in cooperation with the nova-Institute, Hürth, Germany. The data for the global production capacities of bioplastics is based on the market study "Bio-based Building Blocks and Polymers" by nova-Institute (2020).

[www.bio-based.eu](http://www.bio-based.eu)  
[www.european-bioplastics.org](http://www.european-bioplastics.org)

Land use estimation for bioplastics 2020 and 2025

