

## **EUBP position on the upcoming EU policy framework for bio-based, biodegradable and compostable plastics**

(March 2022)

European Bioplastics fully supports the EU initiative to set up a policy framework for bio-based, biodegradable and compostable plastics. In this regard, our industry is looking forward to the development of **EU policies which are fit for purpose, create a level playing field among companies operating on the EU market, all while recognizing the key role played by bioplastics in defossilising the economy and in delivering sustainable benefits under the European Green Deal**. In addition, the framework should contribute to innovation, while developing a truly circular bioeconomy.

Representing the interests of around 70 member companies along the entire value chain of bioplastics – companies who produce, refine, and distribute bioplastics and are located all over the globe and engage in the European market, our Association is speaking with one voice for the European bioplastics industry. Therefore, the public consultation on the upcoming EU policy framework for bio-based, biodegradable and compostable plastics is of keen interest for us. In this regard, we would like to develop further on some issues of key importance encountered during the web-based public consultation and provide our industry view on what could be the key elements to be considered by the Commission in the development of the policy proposal.

### **1. (EQ1) On communication with consumers:**

Although all bioplastics can significantly contribute to global sustainability goals, while tackling key sustainability issues, they do so in different ways.

Their wide range of properties highlights the need for more distinct and clear communication when referring to a specific material or product when engaging with consumers. It is particularly important in order to avoid misunderstandings or greenwashing. Hence, the term ‘bioplastics’ without any further explanation should be avoided in B2C communication about a specific product. Instead, **clear and substantiated claims – based on existing standards and certification schemes – should be made on the actual property (bio-based content) and designated waste management (mechanical recycling, organic recycling) option**. In regions where industrially compostable plastics for specific packaging applications such as bags, for instance, are already widely used, real world evidence demonstrates that consumers

appreciate the products and become quickly accustomed to their appropriate use and end-of-life treatment when communicated and labelled in a clear manner.

## 2. (EQ2-5) On bio-based content

Driving the transition towards a low-carbon circular economy requires carbon to be regenerated by the use of renewable resources. Therefore, **the promotion of alternative feedstock concepts in EU legislation should not be limited to recycled feedstock but must also include bio-based feedstock**, as it can significantly contribute to the overarching goals of the EU Green Deal for climate neutrality by 2050 and for closing the carbon loop. If the EU continues to solely focus on fossil resources in combination with mechanical (or chemical) recycling, the EU's dependence on fossil carbon will continue to remain high for the longer term. The benefits of using renewable resources for plastics manufacturing need to be reflected in the introduction of incentives for the use of biomass. In this sense, **strong policies, research and development (R&D) investments, and financial incentives will help strengthen the bioplastics industry**. This should be done in a manner equivalent to the promotion of recycled content with regards to financial measures.

When communicating with consumers, EUBP supports the recognition of a minimum share of 50% biogenic carbon in a plastics product for it to be labelled 'bio-based plastics'.

However, it needs to be recognised that, under available standards to measure the biogenic carbon content of plastics, lower thresholds are valid and certifiable. Thus, while we endorse legislative measures introducing a threshold for bio-based content, it must still be allowed for products to be marketed as "containing x% bio-based raw materials". **We consider this not only a necessary tool to avoid greenwashing, but also a vital incentive to gradually further increase the bio-based content in plastics**. The setting of a threshold for bio-based content also needs to take into account the actual technical feasibility for certain polymers and applications to be produced with a certain bio-based content, as well as the availability of the polymers and feedstocks to achieve the envisioned minimum bio-based content.

Regarding the method to be used to calculate the bio-based content for communication to consumers, and specifically the reference to mass-balance, EUBP would like to underline that according to EN 16785-1, the claim bio-based product can only be made based on C14. C14 should be used to measure biomass when such data is needed and/or feasible at product level. Nevertheless, **especially in long and complex value chains, mass balance is one option for facilitating a sustainable bioeconomy**. Its suitability needs to be evaluated,

taking the specific market situation and sustainability indicators into account, and standardization of mass balance approaches should be harmonized.

Mass balance could be a tool to allow the use of biomass in production processes at the scale that is needed to achieve the ambitious targets of reducing GHG emissions and, thus, contribute to achieving circularity and climate neutrality. **Any use of the mass balance approach should, however, be fully transparent to ensure customers or consumers are well informed.** The difference to segregated bio-based or mechanically recycled products must be clear, and the claims must clearly express this. These claims need to be clear and transparent and possible for the consumer to understand. In order to get to this objective, the bio-based carbon content of the product where biomass has been attributed by means of mass balance should also be declared so as not to create any misunderstanding.

### 3. (EQ6-10) On sustainability criteria:

Many feedstocks used to produce bio-based plastics have been used for industrial purposes for nearly a century. For example, the EU production of starch, derived from corn, wheat or potatoes, accounts for 10.7 million tonnes (2019), where the EU consumes 9.2 million tonnes of starch (excluding proteins and fibres totaling around 5 million tonnes), of which 56% is incorporated in food, 3% in feed, and 41% in non-food applications - primarily on paper production (31%). Bio-based plastics accounts for less than 5% of EU's consumption of starch, falling in the category of "other non-food applications" (Source: Starch Europe). With regards to sustainability criteria for the production of bio-based plastics, one common concern is not on the type of feedstock used, but rather the amount of land needed to produce the primary raw material, and any land use change. **According to our [own data](#), the bio-based plastics sector does not compete with food and feed production.** The land used to grow the renewable feedstock for the production of bioplastics is estimated to be 0.7 million hectares in 2021 and continues to account for only just over 0.01 percent of the global agricultural area of 5 billion hectares. Moreover, despite the estimated significant growth of global bioplastics production in the next five years, the land use share for bioplastics will increase to below 0.06 percent.

Renewable feedstock that is suited for biofuels is, in general, also suited for making bio-based plastics. Therefore, the transfer of the sustainability criteria applying to biofuels to bio-based plastics is deemed appropriate, in principle. However, unlike biofuels, where one more or less homogenous product is compared to another (fossil-based fuels), bio-based plastics and the products derived from them are at least as diverse as the products made from conventional plastics. Therefore, comparative calculations on required GHG savings must take into

consideration that there is not always an adequate equivalent fossil-based polymer or product to which the bio-based polymer or product can be compared to. If comparisons with fossil-fuel derived plastics are to be fair, equal, and not anti-competitive, then sustainability criteria must be developed also for fossil-based feedstocks and processes.

**4. (EQ19) On the entry of compostable plastic into mechanical recycling waste streams of conventional plastics:**

With regards to waste management options, it is important to note that bioplastics include a whole family of different materials. These materials can be treated in various established recycling and recovery streams and offer additional options such as organic recycling or chemical recycling. The major share of bioplastics produced today is mechanically recyclable. Bio-based plastics that are chemically and physically identical to their fossil-based counterparts, but are made from biomass (so-called drop-in materials, e.g., bio-based PE and bio-based PET) can be recycled in already well-established recycling streams for PE and PET. PLA is also mechanically recyclable.

Compostable plastics, which are certified according to EN 13432, are specifically designed for organic recycling (i.e., industrial composting). If compostable plastics do end up in conventional plastics recycling streams, the existing sorting technologies are perfectly able to sort them with little residual waste. In a PE stream, any residual amounts that do remain can be treated in a very similar manner to existing residual wastes (e.g., PS, PP, or conventional plastics that are usually not recycled). Therefore, they do not increase the complexity of the recycling process and there is no detrimental effect on the recovery of recycled PE.

The opposite scenario, however, should be cause of concern: compost produced from separately collected biowaste is increasingly contaminated with (micro)plastics stemming from conventional plastics impurities that were wrongly disposed of together with the biowaste. Industrially compostable plastics can help to separately collect organic waste and to reduce the contamination of biowaste with conventional plastics, and ultimately reduce microplastics from conventional fossil-based polymers in the compost.

**5. (EQ20) On regulatory mechanisms to support the benefits of biodegradable plastics:**

With regards to this question outlined in the public consultation, we consider that the Commission's proposed options for an answer should not be limits or mere lists of certain applications that should be biodegradable, but it should rather introduce criteria to assist in the

search for new applications and that promote R&D and innovation and improve the management and/or treatment of bio-based, biodegradable and compostable plastics. In this regard, we would consider the following criteria as important to be taken into account:

- Applications that facilitate the collection and composting of biowaste;
- are liable to contaminate compost;
- and/or those that cannot or are not prone to being recycled because they are:
  - Contaminated with food waste;
  - Too small to be collected, sorted and cleaned prior to recycling;
  - Made of non-separable multi-layer films; or
  - Hard to be recycled otherwise, should also be made from compostable plastics.

Where reuse is not appropriate, closed loop systems can operate well by allowing the compostable packaging to be collected together with the food waste.

**A product should always be designed with an efficient and appropriate recovery solution in mind.** In the case of biodegradable plastic products, the preferable recovery solution is the separate collection together with the biowaste, organic recycling (e.g., composting in industrial composting plant or anaerobic digestion in AD plants), and hence the production of valuable compost or biogas.

#### **6. (EQ17-20) On biodegradability in the open environment and as a solution to littering:**

Littering should never be promoted or accepted for any kind of waste, neither on land nor at sea, including all varieties of plastics. Instead, the issue needs to be addressed by educative and informative measures to raise awareness for proper and controlled ways of management, disposal, and (organic) recycling. **European Bioplastics does not support any statements that advertise bioplastics as a solution to the littering problems.** At the same time, biodegradable polymers have the advantage that they do not erode into permanent secondary microplastics upon degradation, because most natural environments habit microbes that are able to metabolise these polymers. The residence time is considerably lower for biodegradable polymers compared to conventional plastic materials. Therefore, **biodegradable plastics can help in minimizing environmental impacts, while reducing the accumulation of plastic particles in different environmental habitats.** I.e., industrial compostable plastics significantly reduce the amount of persistent, non-biodegradable microplastics in the compost and thus a subsequent leakage into the environment. For example, soil-biodegradable mulch films help to stop leakage and accumulation of persistent microplastics in agricultural soils.

Standards for these mulch films have been developed to guarantee complete biodegradation and appropriate ecotoxic behaviour (EN 17033 and EN 17033:2018 Plastics - Biodegradable mulch films for use in agriculture and horticulture - Requirements and test methods). Although certified soil-biodegradable and compostable plastics do – as all solid materials – produce small particles through abrasion when in use, they are not the same kind of persistent microparticles that are caused by conventional, non-biodegradable materials. Instead, these particles will biodegrade.

EUBP supports efforts to gain a better understanding of the origin and creation of microplastics and their release into and effect on the environment, to minimise environmental impacts. However, **if an overall assessment of the persistence of items that are of consequence for “littering” is to be carried out by the Commission, it should incorporate a risk assessment for ALL materials that are found in open environment (glass, paper, metal, etc.),** since there is no evidence of a greater dispersion of compostable products in the environment than any of these other materials.

EUBP is looking forward to the EU Commission’s policy framework on bio-based, biodegradable and compostable plastics. A clear framework is paramount to ensure reliability in decision-making. Our members are open for dialogue with the Commission and are committed to working together with policy makers to contribute to addressing sustainability challenges, driving innovation and to the implementation of the Circular Economy Action Plan and the European Green Deal.

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#### About European Bioplastics

European Bioplastics represents the interests of more than 70 member companies throughout the European Union. With members from the entire value chain, European Bioplastics serves as both a contact platform and catalyst for advancing the objectives of the growing bioplastics industry. For further information, please visit <http://european-bioplastics.org>.

EUBP | March 2022