



FEAD Reply to the Roadmap for the Policy framework on biobased, biodegradable, and compostable plastics

Brussels, 13 October 2021 – The European Commission published the Roadmap for the Policy framework on biobased, biodegradable and compostable plastics, which is part of the European Green Deal and the new circular economy action plan. It tackles the following problems:

Widespread confusion:

FEAD supports the aim of the initiative to establishing a clear definition and overarching principles applying to both biobased plastics (BBP) and biodegradable and compostable plastics (BDGP) considering the circular economy and waste hierarchy principles. It is important to make a clear distinction between bio-based, biodegradable and compostable plastics, recognising that some bio-based plastics are not compostable, and some compostable plastics are not bio-based, and that not all biodegradable plastics are truly and safely compostable

- **Bio-based plastics** also called Bio-sourced plastics are plastics made (partially) from organic materials: some are identical to fossil-based plastics, such as bio polyethylene (PE) or bio polypropylene (PP), while some are polymers intended to be compostable.
- **Biodegradable plastics** is not a regulated term so it can be ambiguous. This term refers to plastics that are degradable through the action of naturally occurring microorganisms such as bacteria, fungi and algae. It gives the wrong idea that such material is harmless if littered. As long as the degradation is not complete, the polymer remains harmful for the environment. The kinetic of degradation depends on the environment (humidity, light, salinity, temperature, ...). They can be also of petrochemical origin, such as polycaprolactone (PCL). BDGP have no benefit in agronomic recovery, furthermore they might contain some additives and have not been assessed yet.
- **Compostable plastics** are plastics which degrade through the process of composting, which is a controlled aerobic process. A distinction between industrial composting and home composting is necessary. Industrial composting conditions require an elevated temperature between 50 °C and 60°C¹ combined with a relatively high humidity and the presence of oxygen. EN 13432 is a product norm for packaging materials, not a waste treatment norm, and complying with it cannot be considered a guarantee of complete industrial compostability. Home composting conditions have lower and less constant temperatures, making it a slower process, depending

¹ European bioplastics. Fact sheet: Industrial composting. November 2009. [pdf]. https://docs.european-bioplastics.org/2016/publications/fs/EUBP_fs_industrial_composting.pdf (Accessed on 13.10.2021).

on the type of material. The existing standard for home composting is NF T 51800.

Sustainability challenges:

The roadmap addresses the sustainability of the biological feedstock used to produce BBP, that can help reduce the life-cycle environmental impacts of plastics by using biological feedstock instead of fossil fuels. FEAD wants to highlight this. BBP and BDCP has no EU sustainability criteria nor any appropriate standards that are supported by sound scientific testing, meaning that a variety of formulations and lack of regulations do not guarantee environmental and market performances.

Another problem the initiative aims to tackle and also welcomed by FEAD, is the effective biodegradation of BDCP and their role in a circular economy. So far, no standard exists for biodegradable plastics in other media such as the marine environment. Biodegradable and compostable plastics only bring environmental benefits when there is a clear co-benefit: separating more bio-waste from residual waste and when they do not degrade the quality of organic waste.

Given these points there should be an assessment framework with clear criteria that assesses in which applications the use of biodegradable and compostable plastics is indeed beneficial to the environment.

In other cases, the use of biodegradable and compostable plastics should be avoided.

FEAD welcomes also the aim of the initiative to clarify measurement method and labelling of BBP as well as the role of testing, labelling, certification to ensure effective biodegradation, alignment with existing disposal infrastructure, and avoiding consumer confusion for BDCP.

We also agree with the Commission that without EU action, the identified environmental and market problems would worsen. Consequences for the environment would aggravate, as the number of not fully sustainable alternatives would increase in the absence of clear and verifiable sustainability requirements.

Alternatives to conventional fossil-based plastics could offer environmental benefits. However, this is on the condition that they have been developed in compliance with EN standards, that they are clearly bringing environmental benefits and that there is a collection and treatment infrastructure in place to manage them. As this is often not the case for biodegradable and compostable plastics, promotion and marketing of biodegradable and compostable plastics at this stage is premature. Recycling of biobased plastics should therefore be favored over biodegradation, which only provides sustainable benefits in very specific applications. In respect with the waste hierarchy, recycling is even better than recovery.

FEAD will continue to follow closely the legislative process on biobased, biodegradable, and compostable plastics.

FEAD Secretariat

info@fead.be