

# Citeo's feedback on the policy framework on biobased, biodegradable, and compostable plastics

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The European Commission has just launched a public consultation, opened until the 27<sup>th</sup> of October 2021, on the policy framework on biobased, biodegradable and compostable plastics. This initiative aims to clarify the role biobased, biodegradable and compostable plastics can play to deliver on Commission's commitments on a carbon neutral and circular economy.

Citeo, the French company in charge of the Extended Producer Responsibility for household packagings and graphic papers, is delighted to be supporting the European Commission in shifting the European Union into a real internal circular economy loop.

As such, Citeo endeavours for improving the circularity of all type of packaging, while also ensuring its net environmental improvement over the product's life cycle. In a context of increasing uncertainties caused by climate disruption, it becomes necessary to effectively address emerging and environmental issues. Among those priorities, we do believe that the development of circular consumption and production models are key factors to combat the effects of climate change and should be pushed forward in the new Circular Economy Action Plan.

In this framework, Citeo supports a better regulation on biobased, biodegradable, and compostable plastics. As a matter of fact, the recital 11 of the Single Used Plastics Directive specifically sets out that *"Plastics manufactured with modified natural polymers, or plastics manufactured from bio-based, fossil or synthetic starting substances are not naturally occurring and should therefore be addressed by this Directive. The adapted definition of plastics should therefore cover polymer-based rubber items and bio-based and biodegradable plastics regardless of whether they are derived from biomass or are intended to biodegrade over time"*.

In response to a question asked by MEPS, the European Commission reiterates biobased and biodegradable plastics are expressly referred to the SUP Directive<sup>1</sup>. According to Mr Sinkevičius, *"the inclusion of such products is in line with the objectives of the Directive and necessary to prevent and reduce the impact of certain fast-moving consumer products that are prone to be littered"*.

Thus, biobased and biodegradable plastics are still considered as plastic. We first need to systematically distinguish "biobased" (referring to the origin of the raw material used to produce plastic) from "biodegradable" or "compostable" (referring to the end-of-life of specific plastics). In addition, Citeo endorses the fact that they should not be systematically understood as a synonym of sustainable and therefore be promoted above "conventional" plastics. Citeo is in favour of promoting first incentives for reducing packaging in order to limit abandoned waste and protect biodiversity, reusing as well as recycling plastics and then composting for packaging related to kitchen biowaste.

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<sup>1</sup> [E-002997/2021](#) Answer given by Mr Sinkevičius on behalf of the European Commission, 26 August 2021.

### Key recommendations :

- ✓ The French legislation provides a definition of biobased materials characterized on a percentage of material of biological origin;
- ✓ Although BBP could open up interesting opportunities on the development of substitutes to fossil based materials, it could also be counterproductive in the fight against plastic pollution since it does not guarantee the sustainability of the product nor its harmlessness for the environment when found in nature, it could disrupt the recycling chains and it is misleading for consumers;
- ✓ Citeo recommends not favouring the promotion of biodegradable and compostable plastics (BDPC) over the promotion of reusable or recyclable alternatives;
- ✓ Citeo support harmonized definitions of biodegradable and compostable plastics as Member States have already adopted measures to prohibit biodegradable claims and limit the use of compostable packaging;
- ✓ Citeo advocates for compostable plastics with a scope limited to fruits and vegetables bags and labels, as well as coffee capsules and pods and tea bags, because they can help increase the collection of biowaste they contain or are associated to;
- ✓ Citeo suggests to align the policy framework on biobased, biodegradable, and compostable plastics with the Sustainable Products Initiative to build a consistent policy framework on recyclability.

## Biobased plastics

### Definition and criteria for biobased plastics

In practice, the term 'bioplastics' is used to describe different materials and, when it is used, it is unclear whether it refers to their biobased nature, their biodegradability or both. It neither gives information on the sustainability of the item.

To better manage such material, french authorities adopted complementary measures to take into account the environmental impact of biobased plastics products (BBP). Indeed, *the French decree n° No. 2016-1170 of August 30, 2016 on the modalities of implementation of the limitation of disposable plastic cups, glasses and plates* provides a definition on biobased materials as well as on the origin of the material.

As such, **biobased material means any material of biological origin excluding the materials integrated in geological fossilized formations**. The biobased content is characterized as the percentage, expressed as a fraction of total carbon, of biobased material contained in the cup, glass or plate, determined according to the calculation method specified by the current international standard for determining the biobased carbon content of plastics.

As of January 1, 2020, the minimum biobased content of a BBP item is 50 % and will reach 60% from January 1, 2025.

Currently, and according to Citeo and the french environmental agency (ADEME), we can **distinguish four types of biobased products** which, depending on the category, are recyclable or compostable (see table below) :


	Raw materials	Recycling	Compostable	Availability level	Examples	
1	<b>Biosourced plastics</b>	Sugars from cane, corn, beet (green chemistry)	<b>YES</b> (existing channels)	<b>NO</b>	++	PET bottle
2	<b>Starch-based plastics*</b>	Corn starch, potato, etc (green chemistry)	<b>NO</b>	<b>YES</b> (home compostability)	+	Bag and plastic film
3	<b>Polylactic Acid (PLA)</b>	Sugars from cane, corn, beet (green chemistry)	NO	<b>YES</b> (industrial compostability)	+	Bottle and plastic film
4	<b>PHA and PHB</b>	Agricultural and organic waste (microbiological synthesis)	NO	<b>YES</b> (home compostability)	emerging	Tray and plastic film
	<b>Other polymers in development, PEF, lactips</b>	Sugars, milk proteins	NO	It depends	pilot	

\* Starch-based plastics are associated with compostable structuring polymers of fossil origin

## Risks to be addressed on biobased plastics

Citeo endeavours to improve the circularity of packaging by proposing new products models and supporting innovation. Although BBP could open up interesting opportunities on the development of substitutes to fossil based materials, Citeo would like to address various risks with regards to the use of BBP for environmental benefits:

- ✓ **BBP does not guaranteed the sustainability of the product.** As a matter of fact, not all feedstocks used for BBP are sustainable. Plant biomass captures atmospheric carbon, which prevents it from contributing to climate change during its storage in the plant and then in the product. However, it does not take into account what existed before the existence of the planted area nor the "hidden" emissions, generated over the entire life cycle, which may be more significant for the biosourced product than for substituted product. In this perspective, a biobased product does neither guarantee a reduction in gas emissions over the entire life cycle of the product nor a reduction of environmental impact. Thus, Citeo supports the necessity to verify the environmental impact a BBP through an environmental assessment.
- ✓ **BBP could disrupt the recycling chain** : Not all recycling systems are adapted to biosourced plastics. Citeo supports the fact that when these systems exist, BBP could be an interesting substitutes to fossil based material.
- ✓ **A widespread confusion on the term "bioplastics" and BBP** : Citeo fully supports the Commission's view with regard to the widespread confusion among consumers on the term "bioplastics" and BBP. For instance, Citeo carried out a study on environmental claims on packaging and results show that claims about the origin of the material are not understood



by consumers<sup>2</sup>. Only 2% of consumers surveyed correctly understand the meaning of BBP and this figure reaches 6% for the claim “bioplastics”<sup>3</sup>. As such, the term “bioplastics” and BBP are misleading and may be counterproductive in the fight against plastic pollution. Thus, Citeo does not support the use of “bioplastics” and would support the use of BBP on labelling only with the percentage of the material of biological origin. Results show that the use of the claim BBP with the percentage of the material is well understood and it encourages the purchase. Citeo is in favour to accompanied consumers in the perception of the information and ensure BBP packagings are not left in the nature.

## Biodegradable and compostable plastics

### The Role of biodegradable and compostable plastics to reach a carbon neutral and circular economy

Citeo is in favour of prioritizing end-of-life solutions for packaging for the best possible contribution to the circular economy: first of all, reduction at source, then reuse, then recycling, and finally composting, for packaging containing or associated to bio-waste (organic matter).

Indeed, **composting, especially in industrial conditions, is not the ideal end-of-life solution for all packaging**: it leads to the degradation of most of the packaging in CO<sub>2</sub> and H<sub>2</sub>O, and it does not allow any material recovery to replace the virgin material - and thus preserve our resources.

**Compostable packaging is also not, contrary to what one might think, a solution to fight against litter, especially in the case of industrial compostable packaging**: it will remain in nature for decades.

Therefore, **Citeo recommends not favouring the promotion of biodegradable and compostable plastics (BDGP) over the promotion of reusable or recyclable alternatives**. The promotion of such materials could jeopardize efforts towards all plastic waste reduction and recyclability and recycling rate objectives.

It is our responsibility to be clear and pedagogical and never let people think that a packaging called biodegradable, compostable or biobased can end up in nature without causing harm.

### Definition and criteria for biodegradable and compostable packaging

In France, there is **no legal and binding definition of biodegradable and biodegradability**. The *Direction générale de la concurrence, de la consommation et de la répression des fraudes*, as the French General Directorate of Competition, Consumer Affairs and Fraud Control, published Guidelines on environmental claims defining “biodegradable”<sup>4</sup>. According to this definition, **it means a substance that can be degraded by living organisms (bacteria), into various elements without any harmful effect on the environment**. It is assessed by considering both the degree of decomposition of a substance and the time needed to obtain this decomposition.

Thus, and in the absence of consensus on the definition of “biodegradable” and considering the misleading of consumers this labelling may cause to the detriment of the fight against plastic pollution, France has decided to prohibit the “biodegradable” claim on products and packaging (Article 13 of the French anti-waste law for a circular economy). Indeed, there has been concern that littering may be increased where a product claims to be “biodegradable” in the open environment due to the assumption that some or all of the impacts of littering are avoided.

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<sup>2</sup> Citeo/Action Plus Shopper Research, Study « Claims on packaging » 2019

<sup>3</sup> Ibid.

<sup>4</sup> [Guidelines](#) on environmental claims for professionals and consumers, DGCCRF, 2012.

Regarding the **definition of compostable packaging**, there is also no legal definition provided by the French law.

Nonetheless, in 2015, the energetic transition for green growth law forbade the use of non-biodegradable and non-compostable plastic packaging in home composting for sending the press and advertising<sup>5</sup>.

In addition, the article 13 of the AGECE Law limits the use of the term “compostable” on label:

- Plastic products and packaging that can only be composted in an industrial unit cannot be labelled ‘*compostable*’.
- Plastic products and packaging that can only be composted in an industrial unit should not be labelled ‘*compostable*’.
- Plastic products and packaging that can be composted at home or in an industrial composting facility should also be labelled « do not throw in the nature ». Thus, and only in this case, the packaging can put in the recycling bin.

Lately, and in application of the AGECE law, the Government notified to the Commission on October 4, 2021, a draft decree on consumer information about the environmental qualities and characteristics of waste-generating products<sup>6</sup>. The decree lays down different rules on labelling and indicates that an order will define a list of compostable, methanable and biodegradable packagings that may be collected jointly with biowaste that has been sorted at source. According to the draft order<sup>7</sup>, it includes:

- paper and cardboard biowaste collection bags and plastic bags that can be composted at home;
- paper coffee filters and their contents;
- paper tea bags and their contents; and
- paper tissues and paper towels.

**Therefore, French authority intends to define more precisely rules applicable to biodegradable and compostable packaging so that a European harmonization is required.**

According to ADEME’s study on home and industrial composting of plastic bags and paper bags<sup>8</sup>, to be successful, home composting requires the meeting of various conditions, in particular, it has to be carried out in closed composters, the plastic has to be composed of a single layer and in contact with organic biowaste, a control of humidity and a temperature level close to 25 degrees have to be met. However, it is unlikely to meet these conditions in nature at all times and all seasons.

In this perspective, **Citeo advocates for compostable plastics with a scope limited to fruits and vegetables bags and labels, as well as coffee capsules and pods and tea bags**, because they are likely to be treated with biowaste when they are composted in dedicated units.

**It should not be extended to other packaging especially:**

- **Fruit and vegetable trays and films:** fruit and vegetable trays do not contain any organic residues after use, they are of little environmental and organic interest for composting. However, it is essential that such packaging is reduced where possible and is recyclable.
- **Fast-food trays:** more than 60% of fast-food trays are used out of home and end up in the recycling bin with other packaging. Reuse should be the priority and recyclability should be encouraged in any case.

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<sup>5</sup> Article 75 of the energetic transition for green growth law, August 17, 2015, N° [2015-992](#).

<sup>6</sup> Draft Decree on consumer information about the environmental qualities and characteristics of waste-generating products, [2021/644/F](#)

<sup>7</sup> Draft Order listing compostable, methanable and biodegradable packaging that may be collected jointly with biowaste that has been sorted at source, [NOR : TREP2121359A](#)

<sup>8</sup> [Study](#) on home and industrial composting of home compostable plastic and paper bags – ADEME, June 2019

Otherwise, **Citeo supports the fact to ban compostable plastics in industrial units unless they are also recyclable.**

## The role of labelling and certification to ensure effective biodegradation

**Citeo reiterates its position supported in the consultation with regards to the revision on the essential requirements of the Packaging and Packaging Waste Directive which promotes a harmonized labelling on compostable packaging to inform consumers and help them doing the right sorting gest.** To label a packaging as “compostable”, it is crucial that there is the adequate system in place to collect the packaging so that it can indeed be composted in the existing facilities.

It should be noted that **some Member States have already adopted measures related to consumer information on compostability.**

Therefore, **the European Commission should consider national rules when harmonizing labelling on compostable packaging.**

In addition, and following the **Sustainable Products Initiative**, the European Commission seeks to make products more sustainable and correcting the lack of reliable information on sustainability along value chains. For instance, this initiative will consider the establishment of rules setting requirements on mandatory sustainability labelling and/or disclosure of information to market actors along value chains in the form of a digital product passport.

Given the Sustainable Products Initiative, **the European Commission should align both product and packaging sustainable objectives in order to establish a coherent policy framework focusing on improving recyclability and increased recycled content.**

### **French Legal provisions applicable :**

- ✓ French energetic transition for green growth law of August 17, 2015;
- ✓ French decree n°2016-1170 of August 30, 2016, on the modalities of implementation of the limitation of disposable plastic cups, glasses and plates
- ✓ French anti-waste law for a circular economy of February 10, 2020;
- ✓ Draft decree on consumer information about the environmental qualities and characteristics of waste-generating products;
- ✓ Draft order listing compostable, methanable and biodegradable packaging that may be collected jointly with biowaste that has been sorted at source.