## Online public consultation questionnaire

Fields marked with \* are mandatory.

### PART 1: General information about the respondent

#### Country of Origin

Please add your country of origin, or that of your organisation.

Netherlands

- \* I am giving my contribution as:
  - Academic/research institution
  - Business association
  - Company/business organisation
  - Consumer organisation
  - EU citizen
  - Environmental organisation
  - Non-EU citizen
  - Non-governmental organisation (NGO)
  - Public authority
  - Trade union
  - Other

#### First Name

#### Surname

Email (this won't be published)

Please provide the following information about your organisation:

#### Organisation name:

255 character(s) maximum

#### Organization size

- Micro (1 to 9 employees)
- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

#### Transparency register number:

#### 255 character(s) maximum

Check if your organisation is on the transparency register. It's a voluntary database for organisations seeking to influence EU decisionmaking.

The Commission will publish all contributions to this public consultation. You can choose whether you would prefer to have your details published or to remain anonymous when your contribution is published. For the purpose of transparency, the type of respondent (for example, 'business association, 'consumer association', 'EU citizen') country of origin, organisation name and size, and its transparency register number, are always published. Your e-mail address will never be published. Opt in to select the privacy option that best suits you. Privacy options default based on the type of respondent selected

#### \* Contribution publication privacy settings

The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous.

- Anonymous Only organisation details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published as received. Your name will not be published. Please do not include any personal data in the contribution itself if you want to remain anonymous.
- Public Organisation details and respondent details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published. Your name will also be published.

#### I agree with the personal data protection provisions

If you are answering as a professional, which of the following best describes your sector or, if an association, the sector that your association represents? (*you may only tick one box so choose carefully*)

- Polymer production (primarily biobased)
- Polymer production (primarily fossil-based)
- Plastics processing industry (primarily biobased, biodegradable or compostable)
- Plastics processing industry (primarily conventional ie fossil-based, non-biodegradable, non-compostable)
- Agriculture
- Fisheries

- Retail
- Private/public procurement of plastic products
- Hotel(s), restaurant(s) and catering
- Organisers of large public events (sports, concerts)
- Waste collection
- Public administration responsible for cleaning of litter
- Sorting and recycling industry
- Operators of compost/digestion plants
- Government (national, regional)
- NGOs and other civil society interest organisations
- Research/academia
- Standardisation and certification
- Other

If you ticked other, please elaborate

#### Background to the survey

There is currently no EU policy in place applying to biobased, biodegradable and compostable plastics in a comprehensive manner. Therefore, in the European Green Deal and new Circular Economy Action Plan, the European Commission announced a policy framework on the sourcing, labelling and use of biobased plastics, as well as the use of biodegradable and compostable plastics.

In view of this framework, the Commission wishes to assess where the use of biobased feedstock leads to genuine environmental benefits, beyond reducing the use of fossil resources. The Commission also wishes to assess where using biodegradable and compostable plastics can be beneficial to the environment, and under which conditions.

#### What are biobased, biodegradable and compostable plastics?

There is widespread confusion among consumers about the nature, sustainability and environmental impacts of different types of plastics. The umbrella term "bioplastics" may be misleading as it is often used to describe, all together, materials of different properties, and thus combining the terms "biobased", "biodegradable" and "compostable".

**Biobased plastics** are fully or partially made from biological resources, rather than fossil raw materials. They are not necessarily compostable or biodegradable. It is important to examine the full life cycle of biobased plastics, to ensure they have a lower environmental footprint beyond the reduction in use of fossil resources.

**Biodegradable plastics** biodegrade in certain conditions only (e.g. biodegradable in soil or in the marine environment).

**Compostable plastics** are a subset of biodegradable plastics that only biodegrade in perfectly controlled conditions e.g. industrial composting facilities. "Home" compostable plastics (biodegradable plastics that only biodegrade in somewhat controlled conditions e.g. home compost), may also exist. In some specific

cases, these plastics can bring advantages compared to conventional, non-biodegradable or noncompostable plastics. Using biobased feedstock does not define the functional characteristics of the resulting plastics or whether they will be biodegradable or compostable. It is quite possible to have biodegradable or compostable plastics which are made from fossil feedstock and vice versa. It is also possible to have biobased plastics which are neither biodegradable nor compostable.

\* The Questionnaire includes two sets of questions.

Please select the set of questions that best applies to you by clicking on the appropriate button. Note: If you select the first set for citizens/purchasers you will also be given the option of answering the second set, following completion, if you so wish.

- Questions for citizens and other potential purchasers of biobased, biodegradable and compostable plastics. Answer these questions if you are a citizen or a procurer/user of plastic products (for example in the hotels, restaurants, canteens sector, agricultural sector, fisheries sector, organiser of large public events).
- Questions for all other professionals and experts who have an interest in biobased, biodegradable and compostable plastics in their professional life.

# PART 3: Questions for all other professionals who have an ACTIVE interest in biobased, biodegradable and compostable plastics in their professional life

**EQ1:** As you may know, the term "bioplastic" is not specific and can be misleading, as it covers a whole range of plastics with different properties that can be ecologically favourable or unfavourable, depending on the application and other circumstances including end of life. However, it is assumed that many consumers have positive associations with the term "bioplastics".

In light of this: Would you prefer to avoid using the term "bioplastic" when communicating with consumers to avoid potentially misleading associations?

Yes

No

Oon't know/No opinion

#### **Questions concerning biobased plastics**

EQ2: Currently, under available standards, there is no minimum biobased content (or share that comes from biological e.g. biomass rather than fossil sources) for plastics to be labelled as "biobased". In your opinion, should there be a minimum biobased content for plastics to be labelled as "biobased"?

- Yes
- 🔘 No
- Don't know/No opinion

EQ3: If you answered yes to EQ2, in your opinion, what should the minimum biobased content be?

	20%	40%	50%	60%	80%	100%	Don't know /No opinion
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Minimum share of biogenic carbon in	0	0	0	0	۲	0	0
'biobased plastics'							

EQ4: In your opinion, should there be a harmonised method to measure the biobased content?

- Yes
- No
- Don't know/No opinion

EQ5: If you answered yes to EQ4, which method would you prefer to use in order to calculate the biobased content for communication to consumers?

	Yes	No	Don't know/No opinion
Based on C14 measuring	۲	0	0
Based on a mass balance approach	۲	0	0
Other		0	۲

If other, please elaborate on your answer:

**EQ6:** Depending on the production process, the application and end-of-life, biobased plastics can have different lifecycle environmental footprints. A standardised Life Cycle Assessment or Product Environmental Footprint method could make energy consumption and emissions comparable between biobased and fossil-based plastics.

In your opinion, are there any gaps in LCA knowledge and Environmental Footprint methods for comparing biobased and fossil-based plastics?

Yes

No

Don't know/No opinion

If you answered yes or no, please elaborate on your answer:

There is no broad acceptance of the LCA for biobased products developed by JRC in Europe

EQ7: In your opinion, should the EU develop sustainability criteria for the feedstock used to produce biobased plastics?

- Yes
- 🔘 No
- Don't know/No opinion

If you answered no, please elaborate on your answer:

EQ8: If you answered yes to EQ7 above, which of the approaches below would you advocate?

- a) Use the sustainability criteria defined for feedstock for biofuels as in the Renewable Energy Directive (2018 /2001) and related Commission's proposal (2021/0218(COD))
- b) Use the sustainability criteria defined for feedstock for biofuels as in the Renewable Energy Directive (2018 /2001) and related Commission's proposal (2021/0218(COD)) as a starting point, but with adjustments to take account of specificities of biobased plastics
- c) Develop a new set of sustainability criteria that do not take the criteria defined for feedstock for biofuels as a starting point
- Don't know/no opinion

#### Please explain your answer to EQ8

Its best to harmonize criteria where possible (regardless of application). However, not all criteria from RED are applicable/ relevant for other applications (besides energy). For example GHG-emmission criteria are not applicable. Furthermore some criteria must be added, such as criteria on water availability and quality and socioeconomic criteria (should also be added to RED).

EQ9: If you answered b) or c) to EQ8 above, please indicate the extent to which the following types of criteria should be included:

Criteria type	Definitely	Perhaps	Definitely not	Don't know /no opinion
Life cycle GHG emissions savings	0	0	۲	0
Protection of land with high carbon stock	۲	0	0	0
Protection of wetland and peatland	۲	0	0	0
Protection of land with a high biodiversity value	۲	0	0	0
Protection of forests	۲	0	0	0
Land-use, land-use change and forestry (LULUCF) criteria	۲	O	0	0
Protection of soil quality	۲	0	0	0

#### Please name any additional/alternative criteria type that you think should be included

Water availability and quality, waste and emmissions to air and soil and socioeconomic criteria.

EQ10: If you answered a) or b) to EQ8 earlier, please indicate the extent to which the following provisions, as defined in the Commission's proposal to revise the Renewable Energy Directive (2021/0218 (COD)), should be included:

Provision	Definitely	Perhaps	Definitely not	Don't know /no opinion
Agricultural or forest biomass is not obtained from land with high biodiversity value, in or after January 2008	۲	0	0	0

Agricultural or forest biomass is not obtained from land with high carbon stock, in or after January 2008	۲	O	O	O
Agricultural or forest biomass is not obtained from land that was peatland in or after January 2008	۲	0	0	0
Revised criteria on harvesting, notably on maintenance of soil quality and biodiversity	۲	0	0	O
Revised criteria for life cycle GHG emissions savings	0	0	۲	0
Biomass respects the waste hierarchy and the cascading principle	۲	0	0	0

EQ11: To what extent would you support the following policy measures to maximise the potential benefits of biobased plastics?

Policy measure		Reasonably well	Not that much	Not at all	Don't know /no opinion
Keep policy as it is	۲	0	0	۲	0
Minimum threshold of biobased content that must be exceeded before plastics may be labelled as 'biobased'	0	۲	0	0	0
Minimum EU sustainability criteria for the biobased content of biobased plastics	۲	0	0	O	0
Promotion by the European Commission of a voluntary 'biobased plastic' label	O	۲	0	O	0
Regulatory mechanism that defines under which circumstances biobased plastics are to be preferred over (virgin) fossil-based plastics	۲	0	0	0	0
Regulatory mechanism that prescribes the mandatory use of biobased plastics (complying with sustainability criteria) for specific applications	۲	0	O	O	©
Regulatory mechanism that ensures that biobased plastics (complying with sustainability criteria) are counted towards mandatory recycled content targets	0	O	0	0	۲
Measures to increase the use of biobased plastics in public procurement contracts for products and services	۲	0	0	0	©
Voluntary pledges by producers of plastics resins or manufacturers of plastic products to increase the level of biobased content in certain products	0	۲	0	0	O

The Netherlands urges the commission to implement policies that increase the use of sustainably produced, recyclable, biobased plastics, preferably in the form of implementing a mandatory minimum share of biobased plastics. Keeping the policy as is therefore not a good option in our view, and voluntary measures are the less preferable option. Ensuring a higher application of biobased plastics can have several beneficial effects: (1) a profitable business case for recycling, (2) a lower price compared to fossil plastics due to economies of scale.

Are there other policy measures that you think are important?

#### Questions concerning biodegradable and compostable plastics

EQ12: The table below displays a number of EU standards that provide the basis for certification of biodegradability as well as compostability in diverse matrices (compost, aqueous medium, use in agriculture) \*

EN 13432	Packaging - Requirements for packaging recoverable through composting and biodegradation - Test scheme and evaluation criteria for the final acceptance of packaging
EN 14995	Plastics - Evaluation of compostability - Test scheme and specifications
EN 17033	Plastics - Biodegradable mulch films for use in agriculture and horticulture - Requirements and test methods
EN ISO 17556	Plastics - Determination of the ultimate aerobic biodegradability of plastic materials in soil by measuring the oxygen demand in a respirometer or the amount of carbon dioxide evolved
EN ISO 14851	Determination of the ultimate aerobic biodegradability of plastic material in an aqueous medium, Method by measuring the oxygen demand in a closed respirometer
EN ISO 14852	Determination of the ultimate aerobic biodegradability of plastic materials in an aqueous medium, Method by analysis of evolved carbon dioxide
EN ISO 14855-1 and -2	Determination of the ultimate aerobic biodegradability and disintegration of plastic material under controlled composting conditions by analysis of evolved carbon dioxide Part 1: General method Part 2: Gravimetric measurement of carbon dioxide evolved in a laboratory-scale test

In your opinion, as a basis for certification of biodegradable as well as compostable plastics, to what extent are the listed standards and test methods applicable? For instance, considering the comments of the scientific advice as reported by SAPEA (2020) [1]

[1] SAPEA, Science Advice for Policy by European Academies. (2020). Biodegradability of plastics in the open environment. Berlin: SAPEA. doi:10.26356/biodegradability plastics

	The standard is sufficient as a basis for labelling	The standard needs minor adjustments if used for labelling	The standard needs major adjustments if used for labelling	Don't know /No opinion
EN 13432	0	۲	0	0
EN 14995	0	۲	0	0
EN 17033	0	0	0	۲
EN ISO 17556	0	0	0	۲
EN ISO 14851	0	0	$\odot$	۲
EN ISO 14852	0	0	$\odot$	۲
EN ISO 14855- 1 & 2	0	۲	0	0

Please elaborate on your answer above:

Minor adjustments: the period described for composting in the standards is much longer (90% disintegration after twelve weeks) than the average period used in industrial composting installations in The Netherlands (about two weeks). Adjusting the standards to a more realistic, shorter period could help the acceptance of compostable plastics by the waste processing industry for those products where compostability has an environmental benefit.

EQ13: Do you see the need for additional standards for compostability in technical systems like facilities for composting or anaerobic digestion?

Yes

No

Don't know/No opinion

If yes, please specify here:

See Q12

EQ14: Do you think that additional requirements are needed to assess compostable plastics?

	Yes	No	Don't know /no opinion
European Standard defining criteria and method to assess suitability for home composting [1]	O	0	۲
Update of standard EN 13432 (e.g. definition of worm test)	0	0	۲
Other, please specify below	$\odot$	0	۲

[1] There is currently no international standard specifying the conditions for home composting of biodegradable plastics. However, there are several national standards, such as the Australian norm AS 5810 "Biodegradable plastics – biodegradable plastics suitable for home composting". Belgian certifier TÜV Austria Belgium had developed the OK compost home certification scheme, requiring at least 90% degradation in 12 months at ambient temperature. Based on this scheme, the French standard NF T 51-800 "Plastics — Specifications for plastics suitable for home composting" was developed, specifying the very same requirements for certification.

#### Other additional requirements

EQ15: In your opinion, do non-biodegradable additives to plastics potentially pose an environmental risk following break-down of compostable or biodegradable plastics?

- Yes
- No
- Don't know/No opinion

EQ16: If you answered yes to EQ15 above, in your opinion, is this risk sufficiently regulated?

- Yes
- 🔘 No
- Don't know/No opinion

If you answered No to EQ16 above, what kind of policy options would you recommend?

EQ17: Microplastics can be emitted to the environment through degradation processes, as an intrinsic part of the use of the product (e.g. abrasion of paint, tyres, shoes, textiles, fishing gear, aquaculture nets etc.). To what extent do you consider that biodegradable plastics might be part of the solution for microfibers and microplastics releases to the environment?

	Very much	To a fair degree	To a limited degree	Not at all	No opinion/ don't know
Biodegradable plastics can be part of the solution		۲	0		0

Please elaborate on your answer

Biodegradable plastics, if truly degradable in the open environment, can provide a solution to the issue of microplastics. However, it is necessary to have good standards so that one type of microplastic is not replaced by another.

Further, in a circular economy materials should retain their value as long as possible. Composting results in a higher loss of value than recycling. So, except for a very limited amount of cases (e.g. teabags) also biodegradable plastic products should be recycled. For that reason claims on biodegradability (e.g. packaging, footwear) should exercised with caution.

EQ18: Please provide your opinion on whether or not there are environmental benefits from using biodegradable or compostable plastics (or altermatives) for the following list of products, while at the same time minimising environmental risks or risks to the waste management processes

	Strong benefits to be gained by using biodegradable plastics	Strong benefits to be gained by using compostable plastics	Replace conventional plastics with alternative biodegradable /compostable materials (e.g. paper / other)	Do not replace conventional plastics with biodegradable, compostable plastics or alternatives	Don't know /no opinion
Bags for biowaste (food and kitchen waste)	0	۲	0	0	0
Shopping bags	0	0	0	۲	0
Very light bags for fruit and vegetables	0	0	0	۲	O
Thin film applications for fruit, vegetables and perishable food products	O	0	$\odot$	۲	O
Fruit labels	0	۲	0	0	0
Coffee capsules	0	0	0	0	۲
Tea bags & coffee pods	0	۲	0	0	0
Packaging for fast moving consumer goods (e.g. personal care products, detergents)	O	0		۲	0
(Plastic) bottles	0	0	0	۲	0
Catering items (such as cups and food containers)	0	0	0	۲	0
Clothing	0	0	0	۲	0

Footwear	0	0	0	۲	۲
Agriculture mulch films	0	0	0	۲	۲
Other agriculture and horticulture applications	0	0	0	0	۲
Fishing gear	0	0	0	0	۲
Geotextiles	0	0	0	0	۲
Buildings & construction	0	0	0	۲	۲
Coatings & adhesives	0	0	0	۲	۲
(Outdoor) paints	0	0	0	0	۲

Other products for which strong environmental benefits would be gained by using biodegradable or compostable plastics (please specify which products)

EQ19: As a composting or anaerobic digestion operator/waste manager/local authority have you experienced:

	Never	Occasionally	Sometimes	Often	Don' t know	Not relevant to me
Biodegradable or compostable plastics in the separate plastics stream for material recycling	0	0	0	O	۲	0
Problems caused in material recycling by biodegradable or compostable plastics	0	0	0	0	۲	0
Use of conventional plastic bags for holding biowaste (e.g. food and kitchen waste) intended for composting	0	0	0	0	۲	۲
Problems caused in composting by conventional plastics	0	0	0	۲	0	0
Certified EN 13432 compostable plastic bags and compostable plastic packaging that have not completely broken down after a full aerobic compost cycle	0	0	0	0	۲	۲
Increased littering by biodegradable or compostable plastics-based products (e.g. bags) in the open environment	0	0	0	0	۲	0
Increased littering by conventional, non-biodegradable/non-compostable plastics- based products (e.g. bags) in the open environment	0	۲	0	0		0
Biodegradable mulch films that have not broken down in the soil	0	0	0	0	۲	0
Biodegradable mulch films that have been transferred to other environmental media like water without breaking down	0	0	0	0	۲	0
Other (please specify):	0	0	0	0	0	۲

EQ20: To what extent would you support the following policy measures to maximise the potential benefits of biodegradable, compostable plastics while at the same time minimising environmental risks?

	Fully agree	Partially agree	Neutral	Partially disagree	Completely disagree	Don't know /No opinion
Adopt a definition of biodegradation as a system property which takes into account both the properties of the material and specific environmental conditions for biodegradation	۲	0	0	O	0	0
Limit the use of biodegradable plastics to specific applications for which reduction, reuse, and recycling are not feasible	0	0	۲	0	0	0
Limit the use of biodegradable plastics to specific applications where collection from the open environment is not feasible	0	۲	0	O	0	0
Do not consider biodegradable plastics as a solution for inappropriate waste management or littering, under any circumstances	۲	0	O	0	0	0
Develop additional standards for biodegradability in specific receiving environments such as the marine environment, the freshwater environment and/or the terrestrial environment	۲	O	O	O	0	0
Promote the supply of accurate information on the properties, appropriate use and disposal, and limitations of biodegradable plastics to relevant user groups	۲	0				0

Ban the labelling of plastics as 'biodegradable', where it is not accompanied by specification of the suitable receiving environment(s)	۲	O	0	O	0	0
Limit the use of compostable plastics to products that are difficult to separate from food waste and are likely to end up with food waste (e.g. fruit stickers, tea bags, coffee pods)	۲	O	0	۲	0	0
Require that plastic packaging that is labelled as ' compostable' is certified according to EN 13432	0	O	0	O	۲	0
Require that plastic packaging that is labelled as 'compostable' displays information on its intended collection and disposal pathway	0	O	0	O	۲	0

Other suggestions for policy options / Comments:

With regards to the last two policy measures, the Netherlands is of the opinion that packaging should be recycled rather than composted. As such, we completely disagree with these policy options. However, the Netherlands always encourages proper labelling and information on how to dispose of an item, also if it happens to be compostable.

With regards to biodegradable plastics as a solution for littering, the Netherlands is of the opinion that prevention strategies and proper waste management are always the best route. Recycling should always be the number one priority as this keeps materials in the cycle. However, if the plastic happens to be biodegradable, that will be a bonus if the material happens to also break down in the open environment. This is not to say that these materials should also be disposed of in the open environment or in the compost; the claims on the packaging should therefore be regulated.

You are welcome to upload documents that support your answers to the survey:

Contact

Contact Form