Rethink Plastic alliance position paper

Response to the roadmap for an EU Policy framework for bio-based, biodegradable and compostable plastics

October 2021

The Rethink Plastic alliance welcomes the precautionary approach proposed by this new roadmap, and fully supports its view of the problem and basis for the EU to intervene. As already underlined in the alliance's position paper from July 2021[1], there is sufficient scientific evidence to suggest that there are significant risks in the current debate on transitioning towards a bioeconomy, in particular if simple substitution is applied that maintains a linear economy. Policy is necessary to guide a reasoned shift towards sustainable material sourcing, resource-efficient consumption patterns and ensure the transition to circularity and material prevention are prioritised.

Problems with bio-based, biodegradable and compostable plastics

First off, we welcome a clear-cut distinction of bio-based, biodegradable and compostable plastics. The generic, encompassing term "bioplastics" that was commonly used thus far, triggered confusion and does not allow a specific, targeted assessment of two issues that are markedly different (sourcing, on the one hand, and end-of-life behaviour, on the other). We warmly recommend keeping two separate agendas from now on on these two issues.

Bio-based plastics (BBP) cover a broad range of materials and feedstocks, with wide variations in terms of their environmental impacts. They include some potentially innovative and promising processes from an economic and environmental standpoint, for example in the case of BBPs made from biogenic waste. However, the vast majority of BBPs today are produced from virgin raw materials, increasing pressures on land particularly where their production is supported by intensive and fossil-fuelled agriculture, and may not by default perform any better than their fossil-based counterpart from an environmental and circularity perspective. What is more, products claiming to contain BBP can also be mixed with fossil-based plastics, sometimes present in greater shares.

[1] ECOS and Rethink Plastic. (2021). Position paper on bio-based plastics. https://rethinkplasticalliance.eu/wp-content/uploads/2021/07/Rethink-Plastic-ECOS-position-paper-bio-based-plastics-July-2021-plastics.pdf

As noted in the roadmap, there exist no EU sustainability criteria for bio-based plastics. Such criteria are also completely absent from standards on bio-based content, which consequently fail to give any qualitative assessment on the raw materials used in the product. In spite of this shortcoming, bio-based content continues to be used as marketing to signify environmental added-value of bio-based plastics.

BBPs cannot be considered as inherently circular and sustainable, and therefore should not be used as a substitute for fossil-based plastics in common single-use applications. The plastic pollution crisis must be solved via an absolute reduction in the global production of plastics, as well as waste prevention, particularly from single-use plastics. BBPs can only contribute to these objectives if they are designed to be circular (long-lasting, reusable and fully recyclable), therefore going beyond sustainable sourcing.

Biodegradable and compostable plastics (BDCP), as other conventional plastics, are often fossil-based and mostly rely on virgin materials, are non-reusable, short-lived and usually not mechanically recycled. As such, they should not be considered a desirable alternative to so-called conventional single-use plastics. Biodegradable and compostable plastics perpetuate a linear model where items are used once and with a short lifetime before being disposed of, contributing to the loss of valuable resources and to externalities associated with their production and end-of-life.

Most often, due to consumer and/or waste operators' misunderstanding fostered by inadequate or partial information, compostable items and packaging are not composted but end up in incineration or landfills, or risk polluting the marine environment as they are disposed of incorrectly. This is sometimes due to vague terminology and specific expertise needed, to the absence of the right infrastructure or infrastructures refusing BDCP because they are not actually compostable under the conditions of some composting facilities.

Our recommendations

Recommendation 1: Go beyond sourcing and address both the use and end-of-life phases of plastic products, by introducing minimum ecodesign and circularity requirements to address impacts associated with plastic pollution, and progressively eliminating single-use and toxic substances. **p.4**

Recommendation 2: Prioritise reuse and limit industrially compostable plastics to selected applications and under specific conditions, in application of the waste hierarchy and of the precautionary principle. **p.5**

Recommendation 3: Develop sustainability criteria for the sustainable sourcing of bio-based plastics and applied at company-level based on a robust due diligence framework guarding against indirect land-use change and GHG-intensive practices. **p.6**

Recommendation 4: Continue to improve and make mandatory the use of the most robust existing lifecycle analysis (LCA) methods, such as the PEF **p.7**

Recommendation 5: Eliminate misuse and greenwashing of bio-based, biodegradable and compostable plastics by introducing mandatory standardised labelling, defining both mandatory and banned terminology and labelling, and by preventing creative accounting of bio-based content. **p.8**

Recommendation 6: Set more stringent legal criteria on industrial compostability to ensure products are fully biodegradable and non-toxic in industrial composts, restrict the use of soil biodegradability standards, and refrain from developing an EU standard on marine biodegradability **p.11**

Recommendation 1: Go beyond sourcing and address both the use and end-of-life phases of plastic products, by introducing minimum ecodesign and circularity requirements to address impacts associated with plastic pollution, and progressively eliminating single-use and toxic substances.

The circularity hierarchy must be operationalised to favour the elimination of unnecessary products, reuse, and recycling, in that order and regardless of the material used. Creating a circular economy requires the elimination of short-lived and single-use materials of any origin. It should also limit the use of virgin materials. These principles should apply to both virgin fossil-based plastic and virgin BBP. Consequently, reusables should be favoured first followed by recycled content over the use of any virgin material use, including as regards BBP.

Following the success of the EU Ecodesign framework approach which progressively phases out the least sustainable products, BBP sustainability criteria should set minimum requirements to prevent unsustainable products from being placed on the EU market. The criteria should cover the presence of toxic substances in product composition, circularity aspects (reusability, remanufacture, recyclability), whole life cycle impacts (greenhouse gas emissions, pollution, resource depletion, including the time needed for biotic resources to re-grow), and compliance with labelling requirements. This approach should be introduced for all sectors of the EU market under the Sustainable Products Initiative and of the Packaging and Packaging Waste Directive where plastics are prevalent and leak into the environment (including packaging, food production and aquaculture, agriculture and horticulture, textiles, construction, electronics, car manufacturing...).

An adaptation of the Methodology for the ecodesign of energy-related products (MEErP) could support the assessment of the environmental impacts of BBP, also learning from recent JRC work on LCA of plastics[2], to address key impact categories such as embodied emissions, indirect land-use change, toxicity, etc. (see also Recommendation 4).

[2] Joint Research Centre. (2021). *Life Cycle Assessment (LCA) of alternative feedstocks for plastics production. Part 1, the Plastics LCA method.* https://op.europa.eu/en/publication-detail/-/publication/673ee8ef-cfdd-11eb-ac72-01aa75ed71a1/language-en

Recommendation 2: Prioritise reuse and limit industrially compostable plastics to selected applications and under specific conditions, in application of the waste hierarchy and of the precautionary principle.

Grant no exemptions on reduction measures to compostable and biodegradable plastics.

EU measures aiming at reducing single-use plastics and packaging consumption and pollution should apply similarly to so-called 'conventional' and to compostable and biodegradable plastics, as in the EU single-use plastics directive.

Biodegradability and compostability properties should be no valid reasons to grant exemptions from much needed measures to reduce waste, single use, and overall impacts of plastics. Whatever inherent characteristics products and packaging may have, they should be designed to be long lasting and reusable, and collected to be recycled or eventually composted in very specific applications and under controlled conditions as detailed below, placing compostability in the lower levels of the waste hierarchy. They do not contribute any valuable nutrients that could enhance soil quality. On top of that, concerns have been raised on their impacts on recycling processes and quality of recyclate or compost.
Overall, we recommend limiting the discussion on compostable plastics to the biowaste policy agenda rather than the plastics agenda.

Marketing of industrially compostable plastics should be conditional to compliance with a list of criteria, and limited to targeted applications.

Compostable plastics should only be considered for very specific and limited applications and under a number of conditions to be met cumulatively:

- the proven unfeasibility of reusable alternatives for given applications,
- the presence of the right infrastructures to ensure separate biowaste collection,
- the presence of the right infrastructures to treat biowaste on a national scale,
- the assurance that industrially compostable plastics are accepted and accordingly treated in these infrastructures within composting time frames and practices,
- the provision of sufficient information to consumers and waste operators to ensure disposal instructions are clear and compostable plastics are correctly disposed of.

The question of the presence of the right infrastructure, of their acceptance of these plastics, and of their effectiveness at treating these plastics are of instrumental importance. In a number of countries, decisions have been made by law to define which items can be accepted or not in the separate collection system of organic waste. It's worth noting that very few compostable plastics in these countries are actually allowed to be collected together with bio-waste. A study from the Commission recognises that '*Undegraded compostable plastic residues in compost or*

digestate is a significant risk that cannot be quantified at present[3]'. The precautionary principle should apply, given those unquantified risks.

Recommendation 3: Develop sustainability criteria for the sustainable sourcing of bio-based plastics and applied at company-level based on a robust due diligence framework guarding against indirect land-use change and GHG-intensive practices.

Do not align with the Renewable Energy Directive sustainability criteria mechanism.

The mechanism under RED II is such that if a biofuel is used which meets the sustainability criteria, then a Member State can count it towards their renewable energy targets under the Directive. The RED II mechanism does not prevent companies to place on the market biofuels that do not match the sustainability criteria. In fact, it has proven insufficient in preventing unsustainable sourcing of biomass from both forests[4] and agricultural crops[5], in particular against fraud and indirect land use change, as evidenced in recent news.[6]

Instead, enforce sustainability criteria for biomass sourcing at company-level, together with mandatory due diligence requirements.

Instead of a Member State-level measure, sustainability criteria for biomass sourcing should be enforced at company-level, such that businesses must comply in order to gain access to the market and/or to policy incentives. Mandatory due diligence requirements and third-party sustainability certification, complemented with market surveillance authorities' monitoring are necessary to ensure that biomass for bio-based plastics is sourced from locations where there

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[3] DG Environment, Eunomia. (2020). *Relevance of biodegradable and compostable consumer plastic products and packaging in a circular economy.* https://op.europa.eu/en/publication-detail/-/publication/3fde3279-77af-11ea-a07e-01aa75ed71a1/language-en?WT.mc_id=Searchresult&WT.ria_c=41957&WT.ria_f=5702&WT.ria_ev=search

[4] ClientEarth. (2021). *Unsustainable and Ineffective: Why EU Forest Biomass Standards won't stop destruction.* https://www.clientearth.org/latest/documents/unsustainable-and-ineffective-why-eu-forest-biomass-standards-won-t-stop-destruction/

[5] Transport & Environment. (2021). *10 years of EU fuels policy increased EU's reliance on unsustainable biofuels.* https://www.transportenvironment.org/wp-content/uploads/2021/08/Biofuels-briefing-072021.pdf

[6] Recent reports have shown that RED II sustainability safeguards could be circumvented, such as virgin palm oil being imported and fraudulently placed on the market as 'waste-based' in order to benefit from double counting. It is crucial to take the lessons learned from RED II when designing the framework for BBP. See Sarantis Michalopoulos for Euractiv, 21 April 2021, *Report warns EU about increased imports of palm oil in disguise.* https://www.euractiv.com/section/agriculture-food/news/report-warns-eu-about-increased-imports-of-palm-oil-in-disguise/

is no risk of indirect land-use change and to demonstrate low environmental impacts. A benchmarking of existing schemes for bio-based plastics should be encouraged to support the identification of the highest performing schemes from a sustainability standpoint.

Recommendation 4: Continue to improve and make mandatory the use of the most robust existing lifecycle analysis (LCA) methods, such as the Product Environmental Footprint (PEF).

Set out minimum requirements for LCA with a preference for PEF, and develop a verification and accreditation system to ensure trustworthy third-party verification.

The PEF approach is the most prescriptive and should be favoured and improved. By contrast, LCA standards from CEN and ISO, including ISO 22526-4 and EN 16760, still overlook important impacts from both conventional and bio-based, biodegradable and compostable plastics, such as environmental and health risks from manufacturing and waste, GHG emissions from indirect land use change, and the depletion of biotic resources due to high and competing demand for biomass.

Consequently, we would like to make the following recommendations to improve LCA methods:

- **Mainstream the assessment of long-lived products**, to be compared with short-lived (e.g. single-use) product designs. Ecodesign of products must be systematically assessed when considering alternative product/system designs. Methods have been developed and proposed for instance to compare the impacts of single-use products with reusable alternatives, such as in the JRC's recent report on Life Cycle Assessment (LCA) of alternative feedstocks for plastics production.[7] The EU should support research and initiatives which comparatively assess single-use with reusable products, for instance in Horizon Europe projects.
- **Do not assume carbon neutrality**. The time lapse between CO2 absorption from the atmosphere by the biomass feedstock for the production of plastics and its release at end-of-life is a crucial aspect of plastics' lifecycle impacts in the current linear economy, where the lifetime of single-use products is a mere few minutes. What is more, bio-based plastics made using fossil-fuelled production methods (such as agriculture) guarantee that their impact is not climate neutral.
- **Address pollution risks from production to end of life phases**, taking in consideration material and chemical inputs as well as all waste outputs.

[7] See in particular section 4.4.11 *Extended product lifetime*. https://op.europa.eu/en/publication-detail/-/publication/673ee8ef-cfdd-11eb-ac72-01aa75ed71a1/language-en

- **Estimate impacts from ILUC risks**, as proposed by the JRC report.[8] Although difficult to assess, ILUC risks are significant and attempts to account for them must be supported.
- **Address biotic resource depletion effects**, as it cannot be assumed that renewable resources cannot be depleted in a context of economic growth and growth in interest for biomass in many sectors (beyond bio-based plastics). Citing Crenna et al., page 3670: "[the supply of biotic resources] could be considered critical as well, if the carrying capacity of the ecosystems responsible for their provision is overcome, namely when resources are extracted at a rate higher than their regeneration capability. In fact, renewable resources do not continue to grow indefinitely and they can be depleted beyond the point of renewability [...]".[9]

Recommendation 5: Eliminate misuse and greenwashing of bio-based, biodegradable and compostable plastics by introducing mandatory standardised labelling, defining both mandatory and banned terminology and labelling, and by preventing creative accounting of bio-based content.

For accepted terminologies, **apply harmonised terminology and labelling to all products, not just for BBP/BDCP**, in order to reduce confusion and allow for a fair comparison of all products on the market. Labelling should focus on preventing inappropriate disposal in the open environment and contaminated waste streams.

Develop a restricted list of allowed terms for manufacturers wanting to claim bio-based content, biodegradability or compostability.

Bio-based content, biodegradability and compostability are not inherently green characteristics for a product, yet they already lead to widespread greenwashing campaigns run by BBP/BDCP manufacturers today.[10] In order to stop greenwashing, the EU should:

- **Ban the use of vague terms, including 'bioplastics'**, used to refer to either or both bio-based plastics and biodegradable and compostable plastics and **'biodegradable'** as already in the case in the legislation of different Member States.
- **Ban claims suggesting the absence of plastic, such as 'plastic free' or 'zero plastic'**. Claims must still mention that the product is made of plastic, albeit bio-based, biodegradable or compostable and make clear if they refer to the item or its packaging.

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[8] See in particular section 4.4.15.3 *Sub-category 3: Climate Change – land use and land use change (LULUC).* https://op.europa.eu/en/publication-detail/-/publication/673ee8ef-cfdd-11eb-ac72-01aa75ed71a1/language-en

[9] Crenna, E., Sozzo, S., & Sala, S. (2018). *Natural biotic resources in LCA: Towards an impact assessment model for sustainable supply chain management.* Journal of Cleaner Production, 172, 3669–3684.

[10] ECOS and Rethink Plastic. (2021). Too Good To Be True? A study of green claims on plastic products. https://ecostandard.org/wp-content/uploads/2021/07/ECOS-RPa-REPORT-Too-Good-To-Be-True.pdf

- **Ban unclear claims which use the product's bio-based composition or its biodegradability characteristics as a marketing tool**, implying that the product is of 'natural' origin, can biodegrade readily or reduce plastic pollution and is therefore safe and sustainable, inducing consumers into thinking the product does not contain any other potentially toxic substances or could degrade with no associated impacts. Producers should provide the full material composition and instructions for its correct disposal. Partially compostable products, which require separation of components, are not consumer-friendly and should not be claimed "compostable. Any reference to nature and related terminology, including ocean-related in conjunction with the labelling, marking or marketing of a product or packaging as being biodegradable or compostable should be prohibited.

Overall, no terminology should be used in the absence of supportive standards and adequate control.

Only allow green claims which are pre-approved and where a reliable, and robust, comprehensive and verified full PEF assessment was conducted.

Aligning with the spirit of the awaited EU initiative on Substantiating Green Claims, we recommend to only allow communication of sustainability performance where a reliable, and robust, comprehensive and verified full lifecycle environmental assessment LCA (using PEF) was conducted comparing a BBP or BDCP product with a conventional alternative(s) and including reusability and extended life as main characteristic or as an alternative design for comparison in the LCA.

Adopt a robust bio-based content accounting methodology in order to ensure reliable and accountable certification.

ECOS supports the use of standards based on the use of a radiocarbon method, such as ASTM DM 6866, EN 16785-1, EN 16640, due to this method's accuracy. While it is feasible to test the presence of biogenic carbon vs. fossil in a product using radiocarbon methods, it is currently too easy to make claims of 100% bio-based content while selling a 100% fossil-based product when using 'attributed bio-based content' methodologies, such as the mass balance approach contained in EN 16785-2 on determination of the bio-based content using the material balance method.[11] This standard contradicts the definition of bio-based products by describing them as products "wholly or partially made from biomass", thus allowing to virtually attribute bio-based content to products with zero bio-based content. More specifically, larger firms usually opt to use a mass balance approach to report bio-based content because it allows them to account for bio-based content used across multiple sites in production lines and therefore aggregate the

[11] For more detail on this standard, please read: ECOS. (2015). *Standardisation developments on bio-based products: the risk of green washing*. https://ecostandard.org/wp-content/uploads/ECOS-position-paper-on-biobased-products_2015_final_11062015.pdf

data in their accounting method. This makes it difficult to verify the actual bio-based content in any given product.

Labelling of bio-based plastics must reflect true sustainability value-added.

Our recommendation is to restrict the communicated bio-based share to biomass produced according to minimum sustainability requirements, with a focus on and preference for biowaste content.

Limit biodegradability claims to standardised industrial compostability under specific conditions.

Restrict the use of compostability claims to industrial compostability, aligning with the Commission's ambition to limit the use of biodegradable plastics to a restricted list of applications where these plastics may bring benefits under strict circumstances and also considering the short-term scenario caused by full implementation of Article 22 of the Waste Framework Directive with related obligation on separate collection.

On home compostability, we do not deem it to be a suitable solution, in that it may mislead consumers into thinking that home compostable materials may as well degrade in the open environment. Also, current applications for compostable plastics have little to do, if anything, with home composting, where reusables (or recyclables) options are very likely to be available. In addition, studies[12] have shown that standardised home compostable plastics could only obtain convincing results under strict conditions unlikely to be met by individuals (closed composters, bags deposited open and filled with organic waste, strict humidity control and frequent stirring of compost, etc.). 'Home compostable' products often poorly degrade in home composts, largely exceeding the expected degradation time.

We consider that the use of marine biodegradability should be firmly restricted and that no related standard should be developed. Marine biodegradability should never be communicated to consumers, as this could lead to intended or unintended behaviours, leading to more plastic ending up in the environment.

A clear and uniform labelling for industrial compostability across Europe should be developed, under the following strict conditions:

- **It should only be implemented once industrial composting is widely available.**
- **It should specify that this product cannot be disposed of in nature and should be disposed in industrial composting facilities**
- **It should be used only if the entire product can biodegrade in an industrial compost**, in accordance with the conditions developed in recommendation 6 of this paper. This would incentivise the manufacture of fully compostable consumer products to avoid confusion and risks of waste stream contamination (e.g. 'partially' biodegradable

[12] E.g see ADEME, OrgaNeo, RITTMO Agroenvironnement, Microhumus. (June 2019). Compostage domestique et industriel des sacs plastiques compostables domestiquement et des sacs en papier: https://librairie.ademe.fr/produire-autrement/530-compostage-domestique-et-industriel-des-sacs-plastiques-compostables-domestiquement-et-des-sacs-en-papier.html

diapers). If this is not feasible, the making of partially compostable consumer products and related consumer-oriented biodegradability claims should not be allowed.
- **It should only be used for partially industrially compostable products for specific product classes and professional users (e.g. agri-food industry workers),** when the users are provided with sufficient and clear information, and can be effectively trained to make the right disposal decisions.

Beyond determined applications and the above detailed conditions, terminologies claiming or referring to biodegradability with the use of biodegradable materials should be prohibited.

Recommendation 6: Set more stringent legal criteria on industrial compostability to ensure products are fully biodegradable and non-toxic in industrial composts, restrict the use of soil biodegradability standards, and refrain from developing an EU standard on marine biodegradability

Set more stringent criteria in legislation than offered by current standards on industrial biodegradability.

In light of the significant shortcomings in current standards[13], we recommend that the European Commission develops minimum legal requirements for full product biodegradability in a short timeframe which go beyond standards, as well as requirements on the material composition of products found to be eligible to use BDCP (where product elimination, or product reusability and recyclability are not feasible).

Biodegradation should be tested and determined for all separate constituents of a product and for the final product as a whole. For the limited industrially compostable plastics that should be allowed, it remains important to ensure their full and harmless composting in industrial composting facilities, tested realistically and demonstrated during lab tests. It is also important to consider that colorants, additives, printing inks and glues can influence the results of biodegradation, disintegration and ecotoxicity tests.

The aerobic biodegradation and disintegration test durations should be shortened (e.g. to 6-8 weeks) to reflect usual industrial composting practices in the EU, in line with the conclusions from the report by Eunomia.[14]

The set of evaluation criteria for testing the presence of hazardous substances should be extended substances that meet the criteria for CLP and SVHC under REACH. Its scope should also be extended to evaluate disintegration and biodegradation under anaerobic conditions and appropriate test methods developed, including toxicity tests with earthworm and/or micro-organisms.

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[13] See also pages 12 and 40 in: ECOS and Rethink Plastic. (2021). *Too Good To Be True? A study of green claims on plastic products.* https://ecostandard.org/wp-content/uploads/2021/07/ECOS-RPa-REPORT-Too-Good-To-Be-True.pdf

[14] DG Environment, Eunomia. (2020). *Relevance of biodegradable and compostable consumer plastic products and packaging in a circular economy.* https://op.europa.eu/en/publication-detail/-/publication/3fde3279-77af-11ea-a07e-01aa75ed71a1/language-en?WT.mc_id=Searchresult&WT.ria_c=41957&WT.ria_f=5702&WT.ria_ev=search

Restrict the use or development of standards on biodegradability in open environments.

First, we consider **no plastic should be designed to be thrown into nature to degrade**. Second, in the absence of realistic and environmentally robust testing and verification methodologies to assess biodegradation in the open environment, we consider efforts should be focused on the upper levels of the waste hierarchy where plastic items are captured, separately collected and reused or recycled, when prevention is not possible. This is because the "open environment" encompasses very different sets of conditions. By no means should perceived economic, information, or willingness barriers to reuse products and materials be used to justify the substitution of conventional single-use plastic by biodegradable plastics.

On marine biodegradability, the Commission and competent authorities should refrain from developing an EU-wide standard. As often and legitimately highlighted by the scientific community and by the UNEP[15], biodegradation depends on environmental conditions and on a materials' specificities, and it cannot be apprehended without referring to a timeframe depending on this environment. In that respect, marine biodegradability cannot be guaranteed due to the diversity of marine environments (temperature, salinity, oxygen levels, presence or absence of sediments, intensity of water movements, UV, etc) and of their different compartments (marine bed, water column, etc), even just in Europe. Consequently, we see the development of a single EU-wide standard on marine biodegradability to be unrealistic and dangerous.

It is also and most importantly not desirable in light of the EU Green Deal objectives. Resources allocated to marine biodegradable plastic products development, marine biodegradation testing and standardisation developments are an inadequate use of resources when the focus should be on increasing circularity and preventing pollution.

Plastics by no means belong to the marine environment, should end up there nor their presence in the marine environment should be legitimised in any way. We consider the risks of developing such a standard to largely overcome any supposed benefits. The mere existence of such a standard could create a market, generate new uses, to the detriment of reusable alternatives and the protection of the marine environment. The term "marine biodegradable" bears inherent risks: it could encourage people to believe these products were designed to be abandoned in the marine environment, or that their presence in the marine environment does not bear any risk for this vulnerable environment.

We also consider the development of such a standard to be in total contradiction also with a series of legislation adopted by the EU to protect the marine environment (such as the Marine

[15] See: UNEP. (2015). *Biodegradable Plastics & Marine Litter - Misconceptions, concerns and impacts on marine environments.*
-Biodegradable_Plastics_and_Marine_Litter_Misconceptions,_concerns_and_impacts_on_marine_environments-2015BiodegradablePlasticsAndMarineLitter.pdf.pdf (unep.org)

Strategy Framework Directive and its descriptor 10 on marine litter to define and assess the good environmental status of marine waters) and commitments taken at EU and international level to limit marine litter and ensure zero pollution of our environment.

Such a standard would not only not contribute to solving plastic pollution, but it would possibly increase plastic pollution and harm the marine environment. There are serious concerns about the biodegradation rates and its extent as we expect the degradation times to differ very much from one compartment to another. The standard would not prevent harm to wildlife and ecosystems during unavoidably long biodegradation periods in this complex environment. This is particularly true as before reaching the marine environment, items may enter freshwater or coastal environments (including sand) with different conditions from marine conditions.

On soil biodegradability, we recommend standards to be restricted to professional agriculture and horticulture uses. The standard should refer to soil biodegradability exclusively for agriculture and horticulture, to avoid any confusion. No claim on soil biodegradability should be made possible for non-professional uses and outside those specific applications.

Conclusion

A cautious approach is necessary in formulating a framework for bio-based, biodegradable and compostable plastics. In consideration of the Green Deal, Zero Pollution and circularity objectives, the EU should consider how public resources are allocated and refrain from supporting false solutions to plastic pollution under EU policies, funding and incentive programmes. Single-use product applications should give way for reusable options so as to lead to an absolute reduction in the use of resources and in the harm they cause to the environment , regardless of the material used and their degradability claims.

Existing voluntary standards do not provide sufficient environmental safeguards. As such, the European Commission should better develop ambitious and mandatory legal requirements based on robust criteria and methods. Legal requirements should cover products and claims which present risks to human health and in terms of environmental pollution. Such products should not be allowed on the EU market, in line with ecodesign principles and in the spirit of the Sustainable Products Initiative and related EU initiatives on Empowering Consumers in the Green Transition and on Substantiating Green Claims.