

# Rethink Plastic and Environmental Paper Network's response to the consultation on a revised EU Bioeconomy Strategy

June 2025

The [Rethink Plastic alliance](#) and the [Environmental Paper Network](#) welcome the opportunity to provide feedback on the development of a new EU Bioeconomy Strategy. We urge the European Commission to ensure that the revised strategy actively supports a truly circular, regenerative, and ecologically sound bioeconomy. This includes ensuring ambitious alignment with European and global objectives on packaging, ecodesign for sustainable products, and nature restoration. In particular, this new strategy must recognise the risks of unchecked expansion of bio-based material production, addressing the full lifecycle impacts of bio-based plastics and paper, and prioritising resource sufficiency, ecological resilience, and social equity over simplistic assumptions of renewability or carbon neutrality.

## Introduction

The EU Green Deal has led to the adoption of key new legislations providing some basis for the EU to curb the triple planetary crisis of climate change, biodiversity collapse and pollution. The new Ecodesign for Sustainable Products Regulation (ESPR) and the revised Packaging and Packaging Waste Regulation (PPWR) have enshrined essential principles and tools in the EU framework to address products and packaging-related life cycle impacts. However, these laws do not yet fully encompass relevant sectors of the bioeconomy, despite known impacts and risks for ecosystem health, resource use and waste generation. Legislators withheld from setting much-needed requirements on products such as bio-based plastics, paper and board.

**The revision of the EU Bioeconomy Strategy is a welcome opportunity to reaffirm EU sustainability commitments for bio-based products.**

The 'renewability' of bio-based materials used especially for short-lived applications such as bioenergy and packaging has been repeatedly discredited.<sup>1</sup> This requires a fundamental shift, as rising consumption levels continue to endanger ecosystems such as primary and old-growth forests, wetlands, as well as the health of EU soils and water bodies, and the global climate.

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<sup>1</sup> Environmental Paper Network. (2023, October). *How renewable is fibre sourcing for paper packaging in Europe?* <https://environmentalpaper.org/wp-content/uploads/2023/10/How-renewable-is-fibre-sourcing-for-paper-packaging-in-Europe.pdf>

Scientific research points towards the need to significantly control and reduce overall material use in order to stay within planetary boundaries and preserve both human and ecological health.<sup>2 3 4 5</sup> **No significant expansion of bio-based material production, including plastics, paper and board could take place without hitting hard against the planet's ecological boundaries.**<sup>6</sup>

The need to maintain EU competitiveness in a challenging global economic context is clear. Each year, the EU imports large volumes of cheap, low-quality, short-lived, and hazardous plastic items. This situation risks creating a race to the bottom for European industries. **European bio-based industries should position themselves to develop high-value, long-lasting products sourced from secondary materials first, and from ecologically-sourced primary materials in a second instance.** Rather than degrading EU standards to the lowest global denominator, the solution must be stricter controls and the implementation of ecodesign rules on European and imported goods. The Ecodesign for Sustainable Products Regulation (ESPR) and the Packaging and Packaging Waste Regulation (PPWR), supported by effective enforcement and additional laws such as the Deforestation Regulation (EUDR), provide the right frameworks to support these goals.

The EU's bioeconomy strategy must honour the commitments of the Kunming-Montreal Global Biodiversity Framework (K-M GBF), such as:

- Target 7: “Reduce pollution risks and the negative impact of pollution from all sources by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects”, including halving the loss of excess nutrients, halving risks from pesticides and highly hazardous chemicals, and working towards eliminating plastic pollution.
- Target 16: “by 2030, reduce the global footprint of consumption in an equitable manner, including through halving global food waste, significantly reducing overconsumption and substantially reducing waste generation, in order for all people to live well in harmony with Mother Earth.”

Aligning the new EU Bioeconomy Strategy with these targets is paramount. It must include further efforts to control the use and release of hazardous substances from additives and treatments used in paper and board products and in bio-based plastics, as well as risks from microplastic particles. It should also aim to reduce food waste (beyond the targets set in the revised Waste Framework Directive, which are well below the 50% reduction envisioned in the K-M GBF). Moreover, the Global Biodiversity Framework aims at reducing the global

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<sup>2</sup> Deeney, M., Yates, J., Banner, J., & Kadiyala, S. (2025, January 20). *Ending pollution and health harms from plastics*. *The BMJ*, 388, r71. <https://www.bmj.com/content/388/bmj.r71>

<sup>3</sup> Nemecek, T., et al. (2024). *The potential land-use impacts of bio-based plastics and plastic alternatives*. *Nature Sustainability*. Advance online publication. <https://doi.org/10.1038/s41893-024-01492-7>

<sup>4</sup> Bachmann, M., Zibunas, C., Hartmann, J., Tulus, V., Sangwon, S., Guillen-Gosalbez, G., Bardow, A. (2023). Towards circular plastics within planetary boundaries. *Nature Sustainability* volume 6, pages 599–610.

<sup>5</sup> Nogueira, G. P., Petrielli, G. P., Chagas, M. F., Sampaio, I. L. de M., Martins, L. Z. de O., Junqueira, T. L., Morais, E. R. de, & Hernandez, T. A. D. (2024). Sustainability synergies and trade-offs considering circularity and land availability for bioplastics production in Brazil. *Nature Communications*, 15, Article 8836.

<sup>6</sup> European Commission. (2023, December 11). *The rise in biomass production and use points to a growing bioeconomy: Is this resource limitless?* Joint Research Centre. [https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/rise-biomass-production-and-use-points-growing-bio-economy-resource-limitless-2023-12-11\\_en?](https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/rise-biomass-production-and-use-points-growing-bio-economy-resource-limitless-2023-12-11_en?)

consumption footprint. The fact that the EU's material footprint as measured by Eurostat has stagnated at an unsustainable level over the past decade<sup>7</sup> despite an increase in circular economy policies demands decisive action from policymakers.

This paper from the [Rethink Plastic alliance](#) and the [Environmental Paper Network](#) provides a civil society perspective on the opportunities to set the right policy framework with follow-up measures to the emerging framework for the ecodesign of products and packaging to help achieve the goals of a truly 'circular, regenerative and competitive' EU bioeconomy.

## Plastics

On average, EU citizens generated [36.1 kilos of plastic packaging waste](#) per capita in 2021, a 29% increase since 2010, or an additional 8.1 kilos per person. Total EU [plastic waste production](#) in 2021 was 16 million tonnes, of which some 40% were recycled.<sup>8</sup>

Global plastic production continues to increase and is set to double by 2050, with continued expansion of plastic production facilities and both absolute and relative growth of the fossil-based sector compared to fossil fuels, as the World transitions towards other sources of energy and the fossil industry seeks to continue growing its revenues. Within that context, bio-based plastics production is also set to grow with industry expecting the tripling of global production by 2030 compared to known 2023 figures.<sup>9</sup>

## Paper and board

On average, EU citizens generated [76 kilos of paper packaging waste per capita](#) in 2022, a 21% increase since 2012, or an additional 13.35 kilos per person. Total EU [paper and cardboard production](#) in 2022 was 34 million tonnes.<sup>10</sup>

Meanwhile, paper packaging consumption worldwide is responsible for the felling of 3 billion trees every year to produce single-use, fast-use paper products that often become hardly recyclable. This overconsumption of pulp for disposable paper-packaging puts avoidable pressure on forests, as forests cannot sustainably supply all the commodities in the volumes demanded around the world.<sup>11</sup>

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<sup>7</sup> European Environment Agency. (n.d.). *Europe's material footprint*.

<https://www.eea.europa.eu/en/analysis/indicators/europes-material-footprint>

<sup>8</sup> European Parliament. (2018, December 12). *Plastic waste and recycling in the EU: Facts and figures*.

<https://www.europarl.europa.eu/topics/en/article/20181212ST021610/plastic-waste-and-recycling-in-the-eu-facts-and-figures>

<sup>9</sup> European Bioplastics e.V. (n.d.). *Market*. <https://www.european-bioplastics.org/market/>

<sup>10</sup> Eurostat. (n.d.). *Packaging waste statistics*. In *Statistics Explained*.

[https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Packaging\\_waste\\_statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Packaging_waste_statistics)

<sup>11</sup> WWF Germany. (2022). *Everything from wood: Investigating forestry and wood sourcing practices*.

<https://www.wwf.de/fileadmin/fm-wwf/Publikationen-PDF/Wald/WWF-Study-Everything-from-wood.pdf>

## The risky shift to bio-based materials

**No effort to increase the share of bio-based alternatives can be successful in tackling the triple planetary crisis without significant reduction in production and consumption.** As detailed in this section, bio-based materials, such as bio-based plastics (BBP) and paper and board, cannot be considered as inherently circular, toxic-free or sustainable, and therefore should not be used as a substitute for fossil-based plastics in common single-use applications. Bio-based products can only contribute to waste prevention if they are designed to be circular (long-lasting, toxic-free,, reusable and fully recyclable).

**The production of bio-based feedstock is not inherently a circular process, and renewability can also be compromised under conventional land management practices.** Renewability is often confused with circularity, although renewable resources such as the biomass used for BBPs can be depleted just as fossil-resources can, if not properly managed. To be fully circular, the time and resources needed for regenerating the resources used during production must be fully accounted for. This can take over a human lifetime for trees, while other environmental aspects are simply irreversible, such as the loss of soil fertility due to overexploitation, and species loss due for instance to habitat destruction, pesticides use.<sup>12</sup>

Beyond the plastics sector, the chemicals industry is looking towards the bioeconomy as a feedstock option to assist with the sector's progress in decarbonisation and eventual defossilisation. While the use of biobased feedstocks can play an important role in these aims, the use of biomass for this industry should be carefully considered for the highest possible overall societal value. Promoting the use of biomass and bio-based feedstocks in chemical productions must occur alongside a critical assessment of what is produced, prioritising non-toxic, circular, and low-impact applications.<sup>13</sup>

**In spite of their 'natural' origin, bio-based plastics (including biodegradable and compostable BBPs) and paper and board packaging have been proven to contain the same, if not more, hazardous additives and present comparable health and environmental risks.**<sup>14 15</sup> These risks also include impacts on marine life, such as on mussels which have been shown to experience the same oxidative stress from microplastics stemming from fossil-based polystyrene and from

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<sup>12</sup> 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 [...]". Source: 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.

<sup>13</sup> European Environmental Bureau. (2025). Action Plan for the Chemicals Industry. [ACTION-PLAN-CHEMICAL-INDUSTRY\\_VF.pdf](#)

<sup>14</sup> Zimmermann, L., Dombrowski, A., Völker, C., & Wagner, M. (2020). Are bioplastics and plant-based materials safer than conventional plastics? In vitro toxicity and chemical composition. *Environment International*, 145, 106066.

<sup>15</sup> Di Mario, M., Bauwens, G., Peltier, F., Goscinny, S., Focant, J.-F., Purcaro, G., & Van Hoeck, E. (2023). Investigation of potential migratables from paper and board food contact materials. *Frontiers in Chemistry*, 11, Article 1322811.

bio-based polylactic acid.<sup>16</sup> Their use instead of fossil-based plastics therefore does not provide any assurance of reduced toxicity compared to conventional materials such as fossil-based plastics, and persistent substances released by their degradation in the open environment will linger on and generate negative impacts even if the polymers or wood-based fibres have degraded.

For both BBPs and for paper and board, the presence of hazardous additives can hinder their recyclability. As regards BBPs specifically, **recyclability of major bio-based polymers is very limited (such as polylactic acid, or PLA)** as they cannot be mixed together with other plastic waste for proper recycling. While biogenic polyethylene terephthalate (bio-PET) and biogenic polyethylene (bio-PE) are recyclable together with their fossil counterpart, PLA and other major BBPs are usually not recycled at all due to their rarity in current waste streams.<sup>17</sup> They also pose significant challenges to the recycling of other plastics as they can reduce the technical performance of the recycled end product if accidentally mixed together.<sup>18</sup>

BBPs 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 do not by default perform any better than their fossil-based counterpart from an environmental and circularity perspective. As researchers from the Vrije Universiteit Amsterdam found in 2025, at the global scale **a shift to using bio-based materials would lead to a significant increase in cropland expansion (+22%) and deforestation (+20%) by 2040 compared to a baseline scenario.**<sup>19</sup>

**We consider the development of an EU-wide standard on marine biodegradability both unrealistic and dangerous.** Investing in marine biodegradability testing and product development diverts attention and resources from more effective solutions such as reuse, prevention, and circularity. No material can truly biodegrade under marine conditions within a timeframe that would prevent environmental and wildlife damage. Biodegradation is highly dependent on environmental conditions, such as temperature, oxygen levels, UV exposure, and the presence of sediments. These conditions vary widely across different marine compartments and regions, even within Europe. As highlighted by UNEP and the scientific community, marine biodegradability cannot be assessed without considering these variables and the relevant

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<sup>16</sup> Zhong, Z., Shang, W., Yang, P., Wang, S., Chen, L., Chen, Z., Li, L., Khalil, M. F., Hu, M., Xu, X., & Wang, Y. (2024). Bio-based microplastic polylactic acid exerts the similar toxic effects to traditional petroleum-based microplastic polystyrene in mussels. *Science of The Total Environment*, 946.

<sup>17</sup> PLA is listed as incompatible with state-of-the-art recycling in most of the European design for recycling standards of plastic packaging (prEN 18120 series under finalisation).

<sup>18</sup> Staplevan, M. J., Ansari, A. J., Ahmed, A., & Hai, F. I. (2024). Impact of bioplastic contamination on the mechanical recycling of conventional plastics. *Waste Management*, 185, 1–9.

<sup>19</sup> Helm, L. T., Venier-Cambron, C., & Verburg, P. H. (2025). The potential land-use impacts of bio-based plastics and plastic alternatives. *Nature Sustainability*, 8, 190–201.

timeframes.<sup>20</sup> Biodegradability alone does not guarantee a lack of negative environmental impact considering the ecotoxicity risks to marine life due to the presence of harmful substances including metals, per- and poly-fluorinated substances (PFAS), fluorine, substances of very high concern (SHVC), and other hazardous substances, as well as microplastics releases and bacteria growth. Promoting a single standard would falsely imply uniform behaviour of materials across diverse environments and could mislead consumers. In practice, degradation timelines in marine settings are highly uncertain and often long, during which plastics can still harm wildlife and ecosystems.<sup>21</sup>

The Zero Pollution Action Plan aims to reduce plastic litter at sea by 50% and microplastics released into the environment by 30% by 2030, yet the EEA and JRC in 2025 found that microplastics pollution had increased 7-9%.<sup>22</sup> This issue would not be addressed by a shift to 'marine biodegradable' plastics. In fact, the concept of "marine biodegradable plastics" risks normalising pollution by suggesting these products can safely degrade in marine environments, potentially encouraging littering and undermining waste prevention efforts. Rather than solving plastic pollution, the creation of such a standard could worsen it.

## Policy recommendations

The EU policy framework targets product groups as a means of ensuring adequate measures for each sector. This approach should not prevent the timely roll out of measures which are relevant across sectors. For instance, many product ecodesign parameters established in the ESPR's Annex I are relevant to bio-based plastics, paper and board.<sup>23</sup> These parameters should all be subject to sustainability performance and information requirements under the ESPR and PPWR. When omitting to set the same requirements across product groups and include bio-based materials, the EU risks shifting the burden of environmental impacts from one sector to another. This is the lesson of the Renewable Energy Directive's biofuels scandal of the 2000's which legislators must not repeat today.<sup>24</sup> The EU should go forth with targeted studies into

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<sup>20</sup> UNEP. (2015). Biodegradable Plastics & Marine Litter - Misconceptions, concerns and impacts on marine environments. [https://wedocs.unep.org/bitstream/handle/20.500.11822/7468/-Biodegradable Plastics and Marine Litter Misconceptions, concerns and impacts on marine environments-2015BiodegradablePlasticsAndMarineLitter.pdf?sequence=3&isAllowed=1](https://wedocs.unep.org/bitstream/handle/20.500.11822/7468/-Biodegradable%20Plastics%20and%20Marine%20Litter%20Misconceptions%20concerns%20and%20impacts%20on%20marine%20environments-2015BiodegradablePlasticsAndMarineLitter.pdf?sequence=3&isAllowed=1)

<sup>21</sup> ECOS, RPa, BFFP. (2024). Blue Paper: Fact-checking plastic biodegradability in the marine environment. <https://ecostandard.org/publications/marine-biodegradable-plastics-pollution/>

<sup>22</sup> European Environment Agency. (2025). Zero pollution monitoring and outlook 2025. <https://www.eea.europa.eu/en/analysis/publications/zero-pollution-monitoring-and-outlook-report>

<sup>23</sup> Relevant product parameters include: (d) design for recycling; (f) use of substances; (g) use or consumption of energy, water, and other resources; (h) use of recycled materials and recovery of materials; (i) use or content of sustainable renewable materials; (l) environmental footprint of the product; (m) carbon footprint of the product; (ma) the material footprint; (o) emissions to air, water or soil, and others. See Annex I of REGULATION (EU) 2024/1781 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 June 2024 establishing a framework for the setting of ecodesign requirements for sustainable products, amending Directive (EU) 2020/1828 and Regulation (EU) 2023/1542 and repealing Directive 2009/125/EC.

<sup>24</sup> EU Bioenergy. (2016, May 12). Biofuels – a story without a happy end. <https://www.eubioenergy.com/fr/2016/05/12/biofuels-a-story-without-a-happy-end/>

addressing the impacts of bio-based plastics, paper and cardboard, with ambitious policy measures as proposed below.

1. Apply **sustainability and circularity criteria** to all plastics and its alternatives (including bio-based plastics) as well as to wood-based products (such as paper and cardboard), either as part of the **ESPR** or in sector-specific legislation such as the **PPWR**.
  - a. Regulating and phasing-out the **least circular, most environmentally impactful, toxic, and polluting products** first, characterised by inseparable multi-material compositions, containing substances of concern, causing harmful emissions during the entire lifecycle of the product, from the production until the end-of-life stage, but also including during the use phase.
  - b. Banning the **destruction of unsold goods**, prioritising textiles and consumer products.
  - c. Combining ambitious **minimum environmental performance requirements** with effective **market surveillance and enforcement**, guided by the best available evidence.
  - d. Supporting **green public procurement** to drive the demand for products which highly perform on environmental criteria, such as EU Ecolabel products.
  - e. Focusing on **materials ('intermediates') as well as final products including bio-based plastics, paper and cardboard**, and on the **impacts generated** during manufacturing and production.
  - f. Developing **digital product passports and clear information requirements** to enhance transparency throughout the supply chain.
  - g. **Separating recycled and bio-based content targets for packaging**. By using bio-based plastic to meet recycled content targets, the linear model of the plastic sector will be further strengthened, and incentives to develop design-for-recycling will be undermined.<sup>25</sup>
2. Include measures to implement the 2022 **Policy framework for Bio-based, biodegradable and compostable plastics**:
  - a. Restricting claims on plastic products. **Bio-based content must be measurable and reflecting actual content**, i.e. by weight, not bio-attributed or mass balanced.<sup>26</sup> Bio-based content claims must be associated with transparency about sustainability impacts and exclude carbon credits.
  - b. Protecting **biodiversity and ecosystem health**, including through **prioritising wastes and by-products** as feedstock over primary biomass utilisation, and

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<sup>25</sup> Zero Waste Europe. (2023, November). *Using biobased plastic to meet the recycled content target for plastic packaging – a false "bonne idée"*.

<https://zerowasteurope.eu/2023/11/biobased-plastic-recycled-content-target-plastic-packaging/>

<sup>26</sup> The Netherlands' Consumers Authorities have flagged misleading sustainability claims based on mass balance systems as they "may incorrectly give the impression that products have sustainability benefits", whereas "it is impossible to guarantee that an individual product actually contains any Better Cotton threads, thus making it impossible to claim with certainty that the cotton is sustainable". See Autoriteit Consument & Markt (Netherlands). (2023). *Decision of the Netherlands Authority for Consumers and Markets within the meaning of Section 12h of the Establishment Act of the Netherlands Authority for Consumers and Markets*.

<https://www.acm.nl/system/files/documents/commitment-decision-hm.pdf>



- favouring alternative designs that prevent waste (e.g. reusable packaging systems, or alternative fishing practices and gear designs).
- c. Continued **research, innovation and investment** that would favour and support priorities listed above.
  - d. Rigorous testing, regulations and standards to **ensure non-toxicity, safety and to prevent unintended negative impacts** from bio-based, biodegradable and compostable plastics as well as paper and board, avoiding the assumption that all bio-based products are inherently non-toxic.
3. Continue to develop and harmonise **lifecycle assessment (LCA)** methods:
    - a. **Mainstream comparisons of long- vs short-lived products:** LCA methods must systematically assess ecodesign and durability, supporting research (e.g. Horizon Europe) that compares long-lasting and reusable products with single-use alternatives, as demonstrated in the JRC's LCA report on alternative plastic feedstocks.
    - b. **Avoid assuming carbon neutrality:** Account for the delayed CO<sub>2</sub> release in biomass-based products, especially in short-lived applications, and recognise that fossil-fuel intensive bio-based plastics are not climate neutral.
    - c. **Include pollution across the full lifecycle:** LCA should consider all material and chemical inputs, as well as emissions (e.g. of microplastics) and waste outputs from production to end-of-life stages.
    - d. **Incorporate ILUC-related impacts:** Support methods to estimate indirect land use change (ILUC) effects, which remain difficult but significant, as highlighted in the JRC's guidance.
    - e. **Account for biotic resource depletion:** Recognise that renewable resources can be overexploited and depleted when extraction exceeds regeneration, especially amid growing biomass demand across sectors.
  4. Strengthen the **enforcement of the RED III criteria for sustainable biomass sourcing** via rapid **identification and strict protection of primary and old-growth forests** and **stricter controls on imported biomass** to stop illegal shipments into the EU of fraudulently mislabelled biofuels.<sup>27</sup> The RED III framework will not perform as intended without addressing these issues, and until then it should under no circumstance be extended to bio-based materials.
  5. Operationalise the **cascading principle**<sup>28</sup> across the bioeconomy-related policies related to all forms of biomass, with measures such as:
    - a. **Targeting market distortions**, such as any subsidies for land use for bioenergy crops and wood that undermine food, feed and material uses.

<sup>27</sup> Transport & Environment. (n.d.). *Palm oil in disguise?*

<https://www.transportenvironment.org/articles/palm-oil-in-disguise>

<sup>28</sup> As defined for instance in Article 3(3) of the Renewable Energy Directive (EU) 2023/2413. See also ECOS. (2023). *Seeing the forest through the trees: how can wood buildings be truly green?*

[https://ecostandard.org/news\\_events/seeing-the-forest-through-the-trees-how-can-wood-buildings-be-truly-green/](https://ecostandard.org/news_events/seeing-the-forest-through-the-trees-how-can-wood-buildings-be-truly-green/)



- b. Adjusting **subsidies and tax regimes** to prioritise circularity (repair, refurbishment, and reuse before recycling or energy recovery) and cascading use, directing biomass resources towards long-lasting applications such as construction and furniture.
  - c. Reinforcing **waste collection and sorting systems** to increase access to bio-based waste, and support effective reuse and recycling.
  - d. Proposing **quotas limiting the use of primary resources** in lower-quality applications such as in incineration for energy, disposable packaging, paper and board, based on scientific assessments of the ecological limitations of land, considering sustainable supply, climate mitigation goals, ecosystem functions, and social welfare.
  - e. Improving the **monitoring of biomass utilisation in the EU economy**, including quantitative data on cascading use, circularity, waste, and on sectors where biomass is used.
  - f. Incorporating **cascading use requirements in public procurement policies** for construction and manufacturing.
6. Do not provide incentives based on biogenic carbon storage or the assumed carbon neutrality of bio-based products as these **do not provide adequate safeguards against short-term carbon emissions**, making these 'carbon benefits' only exist on paper. Furthermore, they tend to oversimplify or omit other environmental and social impacts from biomass production, such as on biodiversity.
7. Support **agroecology and ecological forestry practices**, such as closer-to-nature forestry, particularly for the production of high-value and long-lasting products.
8. Encouraging Member States to strengthen the Packaging and Packaging Waste Regulation (PPWR) in line with circularity and cascading principles, and ensuring a robust implementation:
- a. Adopting a **material neutral approach** and preventing regrettable material substitutions by **eliminating exemptions on paper and cardboard**, as well as by including single-use paper packaging in the market restrictions measures (Art. 25 and Annex V of the PPWR), aligning with the need to reduce consumption and follow the cascading principle.
  - b. Promoting **reusable alternatives**, such as by mandating offering reusable options in the HORECA sector, food delivery and in public events, and supporting deposit-return schemes for reuse systems, and securing appropriate minimum number of reusable packaging trips or rotations in PPWR secondary legislation, hence avoiding SUPD ban bypasses.
  - c. Raising the bar on **packaging industrial composting** by reviewing the European standard EN 13432 to reflect real-life practices and avoid compost, land and water contamination, including from microplastics
  - d. By contrast, **home compostable packaging should not be incentivised** as they pose greater risks of non-biodegradation, due to the varying conditions in home

composts,<sup>29</sup> and their applications should be limited to packaging ‘embedded’ with food waste, as regulated under the PPWR.

9. Strengthen the implementation of the EU Single-Use Plastics Directive by **addressing remaining loopholes**, including high-impact items, and promoting reusable, toxic-free alternatives, including by:<sup>30</sup>
  - a. Adopting a **material neutral approach** to avoid regrettable substitutions, such as paper- and cardboard-based products.
  - b. Developing EU-wide **binding reduction targets on cups and food containers**, and **bans on other single-use products** such as multilayered packaging materials, disposable vapes, fireworks with plastic pieces.
  - c. Not encouraging the creation of markets, labels or claims for ‘marine biodegradable’ products to **prevent improper disposal of products into the environment**.
10. Extend **due diligence requirements** from the Deforestation and Forest Degradation Regulation to **other product groups**, including bioplastics and related feedstock materials, such as sugarcane.

## Relevant previous positions

**Rethink Plastic alliance. (2021).** *Response to the roadmap for an EU policy framework for bio-based, biodegradable and compostable plastics.*

**ECOS and Rethink Plastic alliance. (2024).** *Making the case: A holistic plastic strategy—Addressing polymers and plastics under the ESPR.*

**Rethink Plastic alliance** open letter to Commissioner Jessika Roswall. (January 2025). Subject: Include Plastics and polymers into the first ESPR work programme

**Environmental Paper Network. (2023).** *How renewable is fibre sourcing for paper packaging in Europe?*

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<sup>29</sup> As shown in Purkiss, D., Allison, A. L., Lorencatto, F., Michie, S., & Miodownik, M. (2022). The Big Compost Experiment: Using citizen science to assess the impact and effectiveness of biodegradable and compostable plastics in UK home composting. *Frontiers in Sustainability*, 3, 942724. [https://www.frontiersin.org/articles/10.3389/frsus.2022.942724/full?utm\\_source=fweb&utm\\_medium=nblog&utm\\_campaign=ba-sci-frsus-the-big-compost-experiment#h13](https://www.frontiersin.org/articles/10.3389/frsus.2022.942724/full?utm_source=fweb&utm_medium=nblog&utm_campaign=ba-sci-frsus-the-big-compost-experiment#h13)

<sup>30</sup> Rethink Plastic Alliance & Break Free From Plastic. (2024). *Evaluation of the Single-Use Plastics Directive: Effectiveness and compliance across Europe* (Report). <https://rethinkplasticalliance.eu/wp-content/uploads/2024/12/Evaluation-report-SUP-final-text.pdf>