

Feedback & Response Document: Expert Review

PM.0006: Use of waste recovery to transition to a circular economy

30 March, 2026

Overview

This document outlines the feedback received during the expert review period on version 0.9 of the GHG methodology, detailing how the feedback was addressed and its impact on the methodology, culminating in version 1.0. The expert review was conducted by [Carbon Check](#).

Feedback contributors

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Detailed feedback and responses

#	Section	Feedback/comment/ suggestion	Response
1	1.1 Background	A. The background section treats all waste recovery as uniformly beneficial. It does not clearly distinguish GHG mitigation potential by waste type (e.g., organic waste vs. plastic vs. metals vs. composites), which could mislead users about project relevance and impact.	<p>This methodology is designed to be applicable for multiple types of waste streams and recovery processes. It also does not give a prioritization of the waste types depending on their GHG mitigation potential, as this can vary significantly based on the baseline scenario and the process used to recover the waste. However, we understand that it would be more clear to present at least some direction, especially on a high level in the background section of this methodology. For this reason we added the following segment:</p> <ul style="list-style-type: none"> • <i>Even though this methodology does not prioritize interventions targeting specific waste streams, it is important to acknowledge that different waste types can come with different GHG mitigation potential. For instance, a study did a system-wide LCA + LCC of all EU27 waste streams which ranked where savings come from and which streams offer the biggest improvement potential (Sund, 2025). In the study, the researchers found that for collected waste, plastic, mixed waste, sludge, hazardous waste, non-hazardous chemicals, biowaste, mineral waste, combustion residues and soil result in net Climate Change impacts, with plastic having the highest impact due to incineration. Conversely, metals, textiles, electronics, discarded vehicles, glass, paper/cardboard, and wood yield net savings, with metals achieving the highest savings due to minimal treatment burdens and substantial material recovery benefits.</i> • Sund, J., Albizzati, P. F., Scheutz, C., & Tonini, D. (2025). Comprehensive assessment of environmental and economic impacts of the entire EU waste management system. Waste Management, 204, Article 114910. https://doi.org/10.1016/j.wasman.2025.114910
2	1.2 Applicability of the methodology	A. Methodology Developer has used the terms like refurbishing, upcycling, and reprocessing without any clear distinction. Methodology Developer may align the definitions inline with ISO or EC terminology to ensure consistency.	<p>Agree with the suggestion. We now updated the text to include these definitions based on <i>ISO 59004:2024 “Circular economy – Vocabulary, principles and guidance for implementation</i>. We also enriched the list. Specifically:</p> <ul style="list-style-type: none"> • Repair: Restoring a product to a condition that allows it to function according to its intended purpose. This can include renewal or replacement of worn, damaged, or degraded parts. • Reuse: Using a product or its components again, after their initial use, for the same purpose for which they were originally designed. Minor treatment (e.g. cleaning) may be needed. • Refurbish: Restoring an item, during its expected service life, to a useful condition for the same purpose with at least similar quality and performance characteristics. Refurbishing may involve repair, rework, or updating components, but does not extend beyond the product’s original

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			<p>service life.</p> <ul style="list-style-type: none"> ● Remanufacture: Returning an item to a like-new condition from both a quality and performance perspective, using an industrial process. Unlike refurbishing, remanufacturing can apply even after the expected service life of the product. ● Repurpose: Adapting a product or its components for use in a different function than originally intended, without major modification to its physical, chemical, or mechanical structure. ● Recycling: Processing waste materials to obtain recovered resources for use in new processes or products, excluding energy recovery. Recycling covers activities such as collection, sorting, cleaning, and re-processing, but does not include reuse. ● Upcycling: Processing waste materials into new products of higher quality or environmental value than the original material or product. Unlike conventional recycling, which typically restores material to a similar or lower quality, upcycling increases the functional or aesthetic value of the output.
3	1.2 Applicability of the methodology	B. Methodology Developer allows for any waste type, however the section does not clarify which materials or sectors are excluded or discouraged (e.g., highly hazardous waste, non-source-segregated municipal solid waste), which could increase validation risk.	<p>Good point. We narrowed down the exclusion scope (in the eligibility section):</p> <ul style="list-style-type: none"> ● Hazardous waste as defined under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1989) and corresponding national regulations (e.g., EU Waste Framework Directive 2008/98/EC, Annex III on hazardous properties). <ul style="list-style-type: none"> ○ Proof: Waste classification codes (e.g., EWC codes in Europe), hazardous waste manifests, permits. ● Mixed, non-source-segregated municipal solid waste (MSW), unless the project demonstrates effective pre-sorting into separate fractions. <ul style="list-style-type: none"> ○ Source: IPCC 2006 Guidelines for National Greenhouse Gas Inventories, Volume 5: Waste (defines MSW and its treatment pathways). ○ Proof: Facility sorting records, contracts with municipalities, weighbridge data. ● Waste already mandated for collection or recovery under Extended Producer Responsibility (EPR) schemes. In this case the intervention is not additional. <ul style="list-style-type: none"> ○ Source: OECD definition of Extended Producer Responsibility (EPR) in Extended Producer Responsibility: Updated Guidance for Efficient Waste Management (2016). ○ Proof: Evidence of national or regional EPR legislation covering the waste stream. ● Waste streams that are classified as posing exceptional risks, including asbestos-containing materials, persistent organic pollutants (POPs), radioactive waste, and infectious medical waste. <ul style="list-style-type: none"> ○ Sources: <ul style="list-style-type: none"> ■ Asbestos: International Labour Organization Asbestos Convention, 1986 (No. 162).

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			<ul style="list-style-type: none"> ■ POPs: Stockholm Convention on Persistent Organic Pollutants (2001). ■ Radioactive waste: IAEA Safety Standards SSR-5 Disposal of Radioactive Waste. ■ Medical waste: World Health Organization: Safe management of wastes from health-care activities (2014). <ul style="list-style-type: none"> ○ Proof: Waste classification documents, hazardous materials registry, regulatory permits.
4	1.2 Applicability of the methodology	C. The methodology is designed for universal application across waste streams; however, it does not explicitly highlight or provide additional guidance for high-emission waste streams (e.g., organic waste, multilayer plastics), which generally have greater GHG mitigation potential. Also, Methodology Developer may explain in detail screening waste streams based on GHG impact, material composition, contamination level, and recovery potential The Methodology Developer may consider clarifying this aspect.	<p>We fully agree with this point as well. For this purpose we added the following:</p> <p>Screening of waste streams</p> <p><i>To ensure that the methodology prioritizes interventions with significant and credible climate benefits, project developers must provide a screening assessment of the waste streams in scope. This assessment must consider:</i></p> <ul style="list-style-type: none"> ● <i>GHG impact potential: Likelihood of emissions if unmanaged (e.g., methane and nitrous oxide from organic waste in landfill, CO₂ from incineration of fossil-based plastics).</i> ● <i>Material composition: Share of fossil-carbon content, biodegradability, or energy intensity of virgin equivalents.</i> ● <i>Contamination level: Degree of impurities or hazardous substances that could affect recovery efficiency, safety, or downstream quality.</i> ● <i>Recovery potential: Technical feasibility and scale of recovery, considering available technologies, market demand for outputs, and displacement of virgin materials.</i> <p><i>(also added to the MRV section)</i></p> <p>Provided examples of “high-emission/high-potential” categories</p> <ul style="list-style-type: none"> ● <i>Organic waste: High methane and nitrous oxide generation potential in landfills.</i> ● <i>Plastics (multilayer, composites, contaminated streams): Often incinerated, with high fossil-carbon CO₂ release.</i> ● <i>Rubber (e.g., tires): Energy-intensive virgin inputs; strong circularity gains through recovery.</i> ● <i>Metals: Lower baseline end-of-life emissions but high virgin extraction/processing footprint, so recovery yields large avoided emissions.</i>
5	1.2 Applicability of the methodology	D. The methodology permits mixing composite materials with pure fractions only under specific conditions, but does not define how to assess the environmental trade-off or provide examples	<p>To clarify we added the following rule:</p> <p><i>To address this, we propose clarifying in the methodology that such blending is only permitted if the</i></p>

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		<p>of accepted vs. non-accepted composite scenarios. Methodology Developer may clarify the same.</p>	<p>resulting product meets relevant industrial standards for performance and quality, and if a conservative LCA assessment demonstrates no net increase in life-cycle emissions. The following text will be added:</p> <p><i>“Mixing composite recovered materials with pure fractions is permitted only under the condition that:</i></p> <ul style="list-style-type: none"> • <i>The resulting product meets the applicable industrial standards or sector-specific specifications for performance, safety, and quality (e.g., EN/ISO, ASTM, or equivalent).</i> • <i>A life-cycle assessment demonstrates that the blended material does not increase net greenhouse gas emissions compared to using pure virgin or pure recovered material.</i> • <i>If blending results in changes to product performance (e.g., durability, recyclability), the functional unit must be adjusted to ensure equivalence of service delivered.</i> • <i>Where uncertainty exists regarding environmental trade-offs, the more conservative assumption must be applied.”</i> <p>and:</p> <p><i>“For example, some non-accepted scenarios include:</i></p> <ul style="list-style-type: none"> • <i>Mixing clean PET bottles (high-purity stream) with mixed plastics, which reduces recyclate quality and prevents bottle-to-bottle recycling.</i> • <i>Mixing aluminum beverage cans with composite aluminum-plastic laminates, which contaminates a well-established closed-loop system.”</i>
6	1.2 Applicability of the methodology	E. The section mentions using mass balance for chemical recycling outputs but does not specify which mass balance methods (e.g., ISCC, RSB) are acceptable or how to address multi-input processes. Methodology Developer may explain the same.	<p>Given the diversity in the type of industries and processes that this methodology can be used, it would not be practical to limit the acceptable mass balance methods. Instead we added the following clarification:</p> <p><i>The project developer must select and justify the mass balance method used.</i></p> <p><i>In multi-input processes, project developers must transparently document:</i></p> <ul style="list-style-type: none"> • <i>The total mix of inputs (e.g., fossil feedstock, bio-based feedstock, recycled waste fractions).</i> • <i>The allocation method used to distribute recycled content across outputs.</i> • <i>The resulting recycled share in each output stream.</i> <p><i>Some (non-exhaustive) example methods are ISCC PLUS / ISCC EU, and RSB (Advanced Products).</i></p>
7	1.2 Applicability of the methodology	F. Methodology Developer may mention the other GHG methodologies for bundled practices and also provide concrete examples or references to best practices that demonstrate how multiple methodologies can be effectively integrated.	<p>We currently do not have any examples of GHG methodologies that could be combined. However, just to be sure there is some form of control, we added the following requirement:</p> <p><i>In case multiple methodologies are used, the Project Developer is required to receive an agreement from Proba that the methodologies can indeed be combined, unless compatibility of methodologies is explicitly</i></p>

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			<p><i>stated in one of the methodologies</i></p> <p>We also added the following segment to address the best practices: <i>In case this methodology is used in conjunction with other methodologies or programs then the project developer must:</i></p> <ul style="list-style-type: none"> ● <i>explicitly mention that in the POD and</i> ● <i>demonstrate that benefits are not quantified more than once</i> ● <i>provide a separate monitoring framework to ensure that combined interventions do not undermine each other's effectiveness in long-term consistency</i>
8	1.2 Applicability of the methodology	G. As the methodology states “insetting projects should prioritize direct mitigation”, Methodology Developer may clarify on how inseting projects are designed to prioritize direct mitigation activities, including whether this prioritization is guided by any established procedures or frameworks (e.g., the Science Based Targets initiative – SBTi). Additionally, Methodology Developer may explain how the traceability of inseting activities will be ensured—such as through chain-of-custody documentation or equivalent mechanisms.	<ul style="list-style-type: none"> ● We enriched the methodology to give more clarity: <ul style="list-style-type: none"> ○ <i>This methodology can be used for both offsetting and inseting projects. In alignment with emerging SBTi guidance, projects should prioritize direct mitigation, where the intervention can be physically linked to specific emissions sources within the company's supply chain through a robust chain of custody model. Specifically, this is guided by SBTi's Corporate Net-Zero Standard Version 2.0 Consultation Draft which prioritizes direct mitigation when possible. When traceability to either specific emissions sources or the activity pool currently cannot be established, or if insurmountable barriers persist in addressing a source of emissions, this methodology also acknowledges the role of indirect mitigation as an intermediate measure. The traceability of the inseting activities can be ensured with activities such as chain-of-custody documentation, blockchain-based tracking systems, or third-party verified sourcing certificates. Section 1.4 Additionality, explains the requirements for these different types of projects.</i> ● Essentially, the methodology encourages project developers to do direct mitigation projects, as they offer increased traceability, compared to indirect mitigation. ● We added the “SBTi's Corporate Net-Zero Standard Version 2.0 Consultation Draft”, as a document project developers can use for guidance, until SBTi publishes more specific directions. ● As seen above we also gave examples as to how the traceability can be ensured (chain-of-custody documentation, blockchain-based tracking systems, or third-party verified sourcing certificates)
9	1.2 Applicability of the	H. Methodology Developer may clarify what is meant by facility's exit gate, which exit gate should be considered if more than one company	<p>To clarify we added the following text:</p> <p><i>The facility exit gate shall be the point at which the recovered product shall be deemed recovered and</i></p>

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	methodology	is involved.	<p><i>substitutable, evidenced by conformity to specification and acceptance for use in place of the intended product. Two sub-scenarios are identified:</i></p> <ul style="list-style-type: none"> • Single company: <i>The exit gate is where outputs leave the company’s operational control (e.g., shipment area, storage yard, pipeline custody-transfer point, or delivery acceptance by an external carrier).</i> • Multiple companies (recovery/substitution context): <i>The exit gate is the point at which the recovered product meets the specifications required to replace the intended conventional product, and it is accepted for use or transfer as that substitute. At this point, recovery is deemed complete and responsibility for downstream use lies beyond the producer’s operational control. This point may occur on-site (e.g., between co-located companies) prior to the product physically leaving the shared site.</i>
10	1.3.1 Types of waste to be recovered	A. The methodology allows “any type of waste” to be eligible, it lacks clear prioritization or risk-based filtering, which creates ambiguity around the treatment of problematic materials—such as toxic, composite, or hazardous waste streams—as well as the absence of emphasis on high-impact priority materials like organics or plastics, which offer significant GHG mitigation potential. Methodology Developer may provide material specific guidance enhancing the clarity.	<ul style="list-style-type: none"> • See comments 1, 3 and 5. • Essentially, prioritization is out of scope, however examples of high potential streams are given in the background section. The non-eligible streams section has been updated.
11	1.3.1 Types of waste to be recovered	B. The methodology permits the inclusion of waste streams already undergoing recycling if the proposed intervention results in a greater net GHG benefit; however, it lacks clear guidance on how project developers should conduct this comparative assessment. The absence of parameters such as energy intensity, transportation emissions, material recovery efficiency, or lifecycle performance introduces ambiguity and increases the risk of inconsistent application. Methodology Developer may explain the same.	<ul style="list-style-type: none"> • We acknowledge the lack of guidance in cases where such comparative assessment must be done. Moreover, we want to be more clear on what type of existing LCA results can be used to support the calculations of GHG projects designed based on this methodology. For this reason, we added requirements for the use of both EF data from scientific literature and LCA studies in section 4.1.5. As such, by using these EF / LCA data, project developers can conduct this comparative assessment.

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12	1.3.1 Types of waste to be recovered	C. Methodology Developer may clarify the sentence "high- quality recovery channels" and explain in detail.	<ul style="list-style-type: none"> • "High quality recovery" is now removed as it is too generic. • Whether there is a point to do a project or not (under this methodology) depends on whether there is a GHG impact after the intervention. So in a scenario where the baseline recovery is already efficient, then there would be little to no benefit.
13	1.3.1 Types of waste to be recovered	D. Methodology Developer may explain the eligibility or handling of sensitive waste streams, such as e-waste containing toxic components, biohazardous or medical waste, and materials sourced from informal or unregulated channels like scavenged municipal waste.	<p>We have updated the section to exclude such materials.</p> <p>We now mention:</p> <ul style="list-style-type: none"> • <i>Hazardous waste</i> • <i>Mixed, non-source-segregated municipal solid waste (MSW)</i> • <i>Waste already mandated for collection or recovery under Extended Producer Responsibility (EPR) schemes</i> • <i>Waste streams which are classified as posing exceptional risks, including asbestos-containing materials, persistent organic pollutants (POPs), radioactive waste, and infectious medical waste.</i> <p>Explanation is given for these in the text. Also see comment no 3.</p>
14	1.3.1 Types of waste to be recovered	E. The section refers to "new, unused products generated from overproduction, which do not arise from actual waste diversion." However, the term "overproduction" is not clearly defined within the methodology. For consistency and to avoid misinterpretation, the Methodology Developer is encouraged to provide a clear definition of this term and elaborate on how such products are to be treated under the eligibility criteria.	<p>Defining overproduction from a methodology and monitoring perspective can not be easily achieved. However, the risk that the income from carbon credits incentivizes the production of cheap products that can get into such incentivization schemes still persists.</p> <p>For this reason, we decided to move this issue as a risk that needs to be addressed in <i>section 1.7 Risks</i>. If this risk is significant for the sector of the project, then a mitigation strategy must be devised and agreed upon together with the validation and verification body.</p> <p>To add to that we now require (in section 1.2 Applicability of the methodology) that:</p> <ul style="list-style-type: none"> • <i>Project developers must be transparent and provide proof of the source of their waste streams.</i> • <i>With this we can ensure that the waste stream's origin can be traced.</i> <p>Specifically, the text now states:</p> <ul style="list-style-type: none"> • <i>Risks that need to be addressed only for large-scale projects (defined as having a net impact of more than 250,000 tCO₂e/year): <u>Overproduction of new, unused products misclassified as waste</u></i> <ul style="list-style-type: none"> ○ <i>There is a risk that the generation of carbon credit revenues could incentivize the intentional overproduction of low-value or unused products, which may then be misclassified as "waste" to qualify under this methodology. This would undermine the environmental integrity of the project by crediting activities that do not represent actual</i>

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			<p>waste diversion.</p> <ul style="list-style-type: none"> ○ For large-scale projects, this risk is considered significant and must be explicitly addressed. In such cases, project developers must propose a mitigation strategy, to be agreed with the Validation and Verification Body (VVB), that ensures no crediting of overproduction. ○ As an additional safeguard, the methodology requires (see Section 1.2 Applicability) that project developers provide transparent documentation and verifiable proof of the origin of all waste streams used. This traceability requirement supports the prevention of overproduction being counted as eligible waste diversion. <p>And the following definition of overproduction was added to the definitions: <i>“Overproduction refers to the intentional or avoidable manufacture of new, unused products in quantities exceeding actual demand or operational need, where such products are subsequently not placed on the intended market and instead diverted for treatment, recycling, or disposal. These products do not qualify as ‘waste’ under this methodology, as they have not arisen from genuine end-of-life discard, consumption, or process residue, but from surplus production. Any attempt to include such overproduced products as eligible waste streams shall be considered ineligible.”</i></p>
15	1.3.2 Types of recovered products	A. Methodology Developer may clarify whether partially equivalent or blended recovered products (e.g., products containing both virgin and recovered content) can qualify, and if so under what conditions.	<p>We agree that we should be more transparent on this point, as it is a very possible scenario. For this reason we added:</p> <ul style="list-style-type: none"> ● Project products which contain both virgin and recovered content are eligible under this methodology. In this case, the emission reduction must be calculated proportionately to the recovered proportion. In other words, the virgin share of the product must be accounted for as if no recovery took place. Moreover, the following conditions must be met: <ul style="list-style-type: none"> ○ (a) the recovered content must be traceable/verified, ○ (b) the recovered proportion must be documented for each reporting period, ○ (c) the emissions coming from the blending process must be accounted for.
16	1.3.2 Types of recovered products	B. Methodology Developer has evaluated functional equivalence based on performance but omits lifecycle factors like durability, usability, safety, or recyclability. Methodology Developer may clarify the same.	<p>Great point. We enriched the text to include more lifecycle factors. Specifically, we now mention: <i>To ensure comparability between baseline and project products, the project developer must demonstrate functional equivalence. This requires an assessment of product performance and the following additional lifecycle factors:</i></p> <ul style="list-style-type: none"> ● Durability – expected service life and replacement needs. ● Usability – ease of use, compatibility with standard practices, and user acceptance. ● Safety – occupational and end-user safety risks during production, handling, or application. ● Service life: Incorporating the expected lifespan of the product to ensure a fair assessment of

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			<p><i>long-term carbon impacts. Project developers must also provide evidence of the reference service life (RSL), showing how long it can perform its intended function without significant maintenance or deterioration. If the RSL of the project product differs from the baseline product, appropriate adjustments in calculations must be made.</i></p> <ul style="list-style-type: none"> ● Recyclability / end-of-life management – potential for recovery, reuse, or recycling of the product and its packaging. ● Reliability / consistency – ability of the product to consistently meet required specifications. ● Compatibility / interoperability – integration with existing systems, inputs, or practices. <p><i>The project developer must:</i></p> <ul style="list-style-type: none"> ● <i>Address each factor in the equivalence assessment. If a factor is not relevant to the specific product, this must be explicitly explained and justified.</i> ● <i>Provide sufficient evidence for comparison between baseline and project products. Evidence may include peer-reviewed literature, independent testing reports, Environmental Product Declarations, LCA studies, or other verifiable sources.</i> ● <i>Document all assumptions and any uncertainties associated with the assessment.</i>
17	1.3.3 Regulatory compliance	A. Methodology Developer may clarify how regulatory compliance will be monitored over the crediting period or what will happen in the event of regulatory non-conformance.	<p>We now updated the text to be more specific:</p> <ul style="list-style-type: none"> ● <i>Project developers must provide evidence that recovery processes and recovered products comply with all relevant local and national regulations. Project developers must provide, at a minimum,</i> <ul style="list-style-type: none"> ○ <i>valid operating permits/licenses for recovery processes,</i> ○ <i>product registration/approval certificates, and</i> ○ <i>safety data sheets (SDS) for recovered products.</i> ● <i>Where applicable, developers must also provide:</i> <ul style="list-style-type: none"> ○ <i>compliance certificates,</i> ○ <i>inspection reports, or</i> ○ <i>other official documentation required under local law.</i> ○ <i>Additional supporting evidence (such as environmental impact assessments or registry declarations) may be provided to further substantiate compliance.</i> ● <i>Where such evidence is not available, project developers must clearly justify why and provide alternative documentation.</i>
18	1.3.3 Regulatory compliance	B. Methodology Developer may provide guidance on how to uphold compliance in low-regulation contexts specially for projects operating in regions with informal waste systems or weak	<p>We added the following segment to address this potential issue:</p> <ul style="list-style-type: none"> ● <i>Where local regulatory frameworks are absent, incomplete, or weakly enforced, project developers must demonstrate compliance with internationally recognized environmental, health, and safety standards. In this case, the verifier must ensure that the selected standards fit the</i>

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		enforcement.	<p><i>scope of the project.</i></p> <ul style="list-style-type: none"> ● <i>Accepted evidence may include:</i> <ul style="list-style-type: none"> ○ <i>third-party certifications (e.g., ISO 14001/45001),</i> ○ <i>independent laboratory tests against international contaminant and safety thresholds, or</i> ○ <i>equivalent safeguards documented through accredited NGO or development agency oversight.</i> ● <i>Developers must disclose the absence of adequate local regulation, justify the alternative standards used, and provide verifiable documentation for comparison.</i>
19	1.3.3 Regulatory compliance	C. Section 1.3.3 requires compliance with “local and international safety, quality, and environmental standards.” The methodology does not specify whether compliance is expected with both local and international regulations, or whether meeting one set of standards would suffice. The Methodology Developer is encouraged to clarify this requirement to avoid ambiguity for project developers and ensure consistent application.	<p>We agree that the current phrasing could create ambiguity. We have clarified the following in Section 1.3.3.</p> <p>The intention is that compliance should be demonstrated against local regulations. Both:</p> <ul style="list-style-type: none"> ● in the jurisdiction of the recovery process and ● in the jurisdiction where the recovered product is sold or used. <p>International standards (e.g., ISO, IFC, EU thresholds) may serve as reference benchmarks in cases where local regulations are absent, incomplete, or weakly enforced, but they are not a blanket requirement.</p> <p><i>Specifically we identify two levels of compliance:</i></p> <ul style="list-style-type: none"> ● <i>Process compliance: Recovery facilities and operations must hold valid permits, licenses, or equivalent authorizations required under local law.</i> ● <i>Product compliance: Recovered products must meet all regulatory requirements in the jurisdiction(s) where they are marketed, sold, or applied.</i>
20	1.4 Additionality	A. The methodology leaves the assessment of common practice open-ended. Methodology Developer may clarify if there is any quantitative benchmarks or references to databases for the same.	<p>We have now sharpened our common practice directions:</p> <ul style="list-style-type: none"> ● <i>Project developers are encouraged to use:</i> <ul style="list-style-type: none"> ○ <i>the Proba Additionality Assessment Template to assess and demonstrate additionality, as defined in section 3.6 of the Proba Standard.</i> ○ <i>Alternatively, established tools and approaches can support project developers in assessing additionality, particularly for financial and common practice assessments. These include:</i> <ul style="list-style-type: none"> ○ <i>the UNFCCC’s CDM Tool for the Demonstration and Assessment of Additionality (Version 07.0) and</i> ○ <i>the CDM Tool for Common Practice (Version 03.1) .</i> ● <i>These tools offer structured guidance for conducting barrier analyses, determining financial attractiveness, and assessing market penetration levels of a given practice. While originally</i>

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			<p><i>developed for offsetting contexts, they can be adapted for inseting projects when transparently applied and justified in the POD.</i></p> <p>As seen above we have created a Proba Additionality Assessment Template which can be accessed here: https://proba.earth/hubfs/Project_Design/Proba_Additionality_Assessment_Template.pdf</p>
21	1.4 Additionality	B. Methodology Developer may specify the role of the VVB in assessing or verifying the additionality claims, particularly for prevalence and financial analysis.	<p>We added the following text to clarify how the VVB should ensure the additionality claims are checked during the project validation:</p> <ul style="list-style-type: none"> • <i>The Validation and Verification Body (VVB) must assess and validate the additionality claims presented by the project developer, including both the prevalence analysis and the financial analysis. In doing so, the VVB is required to confirm that the data sources, assumptions, and calculations used are credible, transparent, and consistent with the methodology's requirements. The VVB must document its assessment in the validation report, apply a conservative approach where uncertainties exist, and request clarification or additional evidence if the information provided is insufficient to substantiate the additionality claim.</i>
22	1.4 Additionality	C. The section on regulatory additionality states that additionality requires (a) no regulation mandating the recovery of the waste stream and (b) absence of financial incentives or regulatory directives supporting the intervention. However, the same paragraph notes that if a regulation is implemented and actively enforced during the crediting period, the project's crediting period will end. The Methodology Developer is encouraged to clarify how these provisions interact—particularly whether the absence of regulation is assessed only at the project start or continuously throughout the crediting period—and to ensure consistent application of additionality criteria.	<p>We have now added the following segment to ensure that the regulatory additionality is sufficiently addressed during the crediting period:</p> <ul style="list-style-type: none"> • <i>Project developers must transparently disclose any (upcoming) changes in the regulatory landscape relevant to the recovery process or recovered products throughout the crediting period and report on them in each verification report; if no changes have occurred, this must be explicitly stated to ensure transparency and consistency.</i>
23	1.4 Additionality	D. Methodology Developer may clarify how the chain of custody will be ensured in the context of inseting projects.	<p>The follow have now been clarified in the methodology:</p> <p><i>The methodology requires that each Project Overview Document (POD) provides a clear description of how traceability of the supply chain and the chain of custody (CoC) model will be ensured at project level. This includes explaining how emission reductions and other project outcomes are tracked from the point</i></p>

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			<p>of origin through to the final claiming entity within the inseting framework.</p> <p>To mitigate the risk of double counting or invalid scope 3 claims, the Proba platform incorporates a blockchain-based registry. This registry records all issued units, transfers, and retirements in a transparent and immutable manner, thereby supporting the integrity of supply chain claims. While the platform provides this safeguard, it is ultimately the responsibility of the reporting company's auditor to assess and verify that the scope 3 claims made are plausible and in line with accounting standards. The platform serves to support, but does not replace, this assurance process.</p> <p>With respect to chain of custody models, the methodology does not prescribe eligible models, as appropriate models may vary by supply chain and project type. Instead, Project Developers are expected to identify and apply the most suitable CoC model for their specific context (e.g., physical segregation, mass balance, or book-and-claim), and to justify this choice in the POD. The chosen model must ensure that the environmental benefits claimed by the reporting company can be credibly traced back to the originating activity, and that no double allocation occurs.</p>
24	1.4 Additionality	E. Financial additionality states: "The project developer must prove that the financial incentive from carbon finance will lead to the adoption of the waste recovery method. Financial additionality is also achieved when the carbon finance improves the business case of a project allowing it to scale and accelerate the scope of the project." Methodology Developer may rephrase the sentence for improved clarity and precision.	<p>This segment has been rephrased as follows:</p> <ul style="list-style-type: none"> ● <i>The project developer must prove that the financial incentive from carbon finance will lead to the increased adoption of the waste recovery method. Transparency on financial assistance, such as subsidies, is also required. This financial analysis may be treated as confidential by the VVB and Proba and is not required to be published in the public registry.</i> <p>And from the financial section of the Proba additionality template, the Project Developers are required to supply the following information:</p> <ul style="list-style-type: none"> ● <i>B.1 Investment Viability</i> <ul style="list-style-type: none"> ○ <i>Conduct a simple cost analysis demonstrating that the total costs of implementing and operating the project exceed any financial benefits.</i> ○ <i>If the project does generate revenues, quantify the business case using an investment analysis method like Net Present Value (NPV) or Internal Rate of Return (IRR)</i> ● <i>B.2 Financing conditions and constraints</i> <ul style="list-style-type: none"> ○ <i>Are there cost-related barriers (e.g., high upfront CAPEX, long ROI periods)?</i> ○ <i>Would this project proceed without carbon financing?</i> ○ <i>Has the project received subsidies or public incentives related to emissions reductions? Please explain their role and impact.</i>
25	1.4 Additionality	F. The Methodology Developer may consider providing a clear definition or guidance on the	We have added a clearer guidance for the geographic boundary, so that it focuses on the country level of the intervention.

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		<p>appropriate geographic boundary to be applied for common practice analysis, baseline determination, or project assessment which may otherwise lead to inconsistent interpretations or misapplication by project developers.</p>	<ul style="list-style-type: none"> • <i>By default, the appropriate geographic boundary for common practice analysis, baseline determination, and project assessment shall be defined at the country level.</i> • <i>In cases where the project developer operates across multiple countries or where the recovery process is more appropriately assessed at a broader or narrower scale, the boundary may instead be defined at:</i> <ul style="list-style-type: none"> ○ <i>A multi-country level, where this better reflects the operational or market context of the project; or</i> ○ <i>A regional level within a country, if recovery practices, regulations, or market dynamics are distinct from the national average.</i> • <i>Any deviation from the default country-level boundary must be clearly explained and justified in the Project Overview Document. The justification must include the rationale for selecting the boundary, supporting evidence of its relevance, and an explanation of how it ensures fair and consistent comparison between baseline and project activities.</i>
26	1.4 Additionality	<p>G. The methodology states “Project developers are responsible for monitoring regulatory changes, financial conditions, and market adoption that may affect the project’s additionality.” However, it does not provide clarity on how such monitoring and verification will be ensured in practice.</p>	<p>We now sharpened the requirement as follows:</p> <ul style="list-style-type: none"> • <i>For every verification event project developers must confirm whether there have been any regulatory changes that may affect the project’s additionality. In addition, the crediting period is designed to reflect the changing nature of financial additionality and prevalence. As market conditions and adoption rates evolve, these factors are re-evaluated when the crediting period is renewed to confirm the project’s continued eligibility.</i>
27	1.5 Crediting period	<p>A. Methodology Developer may clarify whether crediting period renewals are permitted under this methodology, and if so, specify how many times a renewal of the crediting period (RCP) can be carried out for a given project.</p>	<p>There is no limit on crediting renewals, provided that the applicability, eligibility and additionality requirements are fulfilled at the time of the crediting period renewal. The project must also align with any updates of the methodology at that time. As such, it is now stated that:</p> <ul style="list-style-type: none"> • <i>Renewals of the crediting period are permitted and may be carried out multiple times, provided that each renewal follows a full re-validation process and continues to meet the applicability criteria, methodological requirements and alignment with Proba standard and the latest version of the GHG methodology.</i>
28	1.5 Crediting period	<p>B. Methodology Developer may provide a clearer guidance on prevention on double counting, by including a provision that ensures no emission reductions claimed under another system prior to project registration re eligible for crediting under this methodology.</p>	<p>This typically falls under the standard upon which the credits are issued. In the case of the Proba Standard (https://proba.earth/probas-blog/proba-standard) section 5.7 Uniqueness provides guidance on this topic.</p> <p>Nevertheless, we added the following clause to make sure double claiming is sufficiently addressed:</p> <ul style="list-style-type: none"> • <i>To avoid double counting, emission reductions that have already been claimed, credited, or otherwise accounted for under another mechanism, program, or system prior to the project’s</i>

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			<p>registration are not eligible for crediting under this methodology.</p>
29	1.5 Crediting period	C. The methodology lacks clarity regarding the crediting period, as it does not define either a fixed duration or a minimum crediting period applicable to the waste recovery project activity	<p>The methodology states that:</p> <ul style="list-style-type: none"> For GHG projects recovering waste, the crediting period can be set up to a maximum of 10 years, depending on the trend in regulatory and industry landscapes towards circular economy practices. <p>We do not prescribe a minimum or a fixed duration, as this is more of a choice of the project developer. From our side we want to ensure that project developers re-validate the project on a 10 year basis, to ensure that the project is still aligned with the methodology requirements.</p> <p>It is also possible that during the 10 years, the project only issues credits for some years, depending on whether the intervention is happening or not.</p>
30	1.6 Co-benefits & no harm principle	A. Methodology Developer may mention about third-party review or validation of the no-harm assessments or of how ongoing compliance will be verified or updated throughout the crediting period.	<p>This is defined as per the Proba Standard (3.10, 4.2, 4.5). The co-benefits should be specified in POD before validation and reported yearly as part of verification</p> <p>We added the following clauses, to make the process more clear:</p> <ul style="list-style-type: none"> Project developers should specify the co-benefits in POD before validation and report on them yearly as part of verification. Project developers must adhere to the Environmental and Social do no harm principle by conducting thorough assessments to identify and evaluate potential environmental and social impacts of their GHG projects. They must also implement appropriate mitigation measures to address any identified potential risks and negative impacts, ensuring that the project does not adversely affect local ecosystems or communities, particularly vulnerable populations. As such, in the POD, at least the following must be established: <ul style="list-style-type: none"> monitoring frequency - at least once during the crediting period relevant risk indicators corrective pathways if harm is detected. The VVB bodies must then: <ul style="list-style-type: none"> assess the co-benefits and ESDNH monitoring plan during the POD review check the progress of the plan (as defined in the POD) and the possible corrective actions during the yearly verification Proba's Environmental and Social do no harm principle Template can be used for this purpose.
31	1.6 Co-benefits & no harm	B. As the sector is largely unorganized, the methodology does not provide sufficient detail on how health, safety, environmental, and social	<ul style="list-style-type: none"> There are currently three safeguards to prevent risks related to health, safety, environmental, and social aspects: <ul style="list-style-type: none"> A list of excluded harmful waste materials in the eligibility section

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	principle	aspects will be addressed and safeguarded. The Methodology Developer may consider clarifying how these aspects are integrated into the project requirements, including reference to relevant safeguards, standards, or monitoring mechanisms.	<ul style="list-style-type: none"> ○ The requirement that the project must adhere to the local / national (health and safety) regulations, which already safeguards waste initiatives on a national level. <ul style="list-style-type: none"> ■ Also as stated in comment 18: “Where local regulatory frameworks are absent, incomplete, or weakly enforced, project developers must demonstrate compliance with internationally recognized environmental, health, and safety standards. In this case, the verifier must ensure that the selected standards fit the scope of the project.” ○ The requirement that project developers create a monitoring and corrective plan (a template for this is also available), which must be vetted by the VVB body during the POD validation for both risks and the “Environmental and Social do no harm principle”. This plan must be monitored during the crediting period and the VVB will also check upon this plan during the crediting period to ensure compliance.
32	1.6 Co-benefits & no harm principle	C. The methodology uses the phrase “and beyond if necessary”. The Methodology Developer may clarify the intent of this term and specify whether any conditions or thresholds determine when it applies, to avoid ambiguity in interpretation.	Due to ambiguity we decided to remove this sentence and replace it by the segment presented in comment 30.
33	1.6 Co-benefits & no harm principle	D. The methodology encourages project developers to engage in underserved regions (e.g., LDCs or SIDS) that lack adequate local recycling infrastructure. The Methodology Developer may clarify how this applicability is defined and whether any specific provisions, incentives, or safeguards are associated with such projects.	The reference to these geographies in the methodology is intended primarily as a callout to highlight their relevance and the opportunity for impact in areas where recycling infrastructure is limited. It is not accompanied by additional requirements, safeguards, or incentives beyond what is already specified in the methodology.
34	1.7 Risks	A. Methodology Developer may explain how the unmitigated or realized risks may affect the emission reduction calculation, which is important for risk-based integrity of the carbon claims.	We recognize the importance of clarifying how risks may affect the calculation of emission reductions. In this methodology, unmitigated or realized risks (e.g., process interruptions, leakage, underperformance of recovery systems) do not automatically alter the ex-ante emission reduction calculation but may reduce the volume of emission reductions eligible for issuance if they result in lower recovery volumes or lower verified performance. The risk assessment therefore functions as a transparency and integrity safeguard, ensuring that project developers disclose potential risks and that verifiers can monitor whether these risks materialize during the crediting period.

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			<p>We added the following text to reflect that:</p> <ul style="list-style-type: none"> <i>Risks identified in the project risk assessment that remain unmitigated or are realized during the crediting period must be transparently reported in the monitoring reports. Where such risks result in reduced recovery volumes, increased emissions, or otherwise compromise the project’s performance, the associated emission reductions must be adjusted downward accordingly to reflect verified outcomes. Risks that do not materialize or that are effectively mitigated do not affect the calculation of emission reductions.</i>
35	1.7 Risks	B. Methodology Developer may clarify whether the risk assessment is required to be updated periodically—such as during revalidation or each verification cycle—to ensure that evolving project conditions and potential risks are adequately captured and addressed.	<p>We decided to give more specific directions for the update cycle of the risk assessment. We now state:</p> <ul style="list-style-type: none"> <i>The risk assessment must be updated as per the Proba Standard.</i> <i>The project developer must consult the VVB when creating this monitoring plan, to make sure that these aspects are adequately monitored.</i>
36	1.7 Risks	C. The methodology requires a risk analysis with likelihood and severity scoring but does not specify how this process is standardized. The Methodology Developer may clarify whether a standardized framework, scoring guideline, or reference document is to be used to ensure consistency and comparability across projects.	<p>The “<i>Risk Evaluation Template for waste-valorisation projects</i>” can be used for these purposes</p> <ul style="list-style-type: none"> The template can be shared upon request and is intended only as guidance. It is the developer’s responsibility to complete the full risk assessment, and either the developer or the VVB may introduce additional project-specific risks that should be considered.
37	1.7 Risks	D. The methodology outlines that high and very high risks must be addressed with mitigation measures but does not clarify whether there is a hierarchy of mitigation actions (e.g., prevention, control, compensation) to be followed. Additionally, it is unclear if a buffer pool mechanism is envisaged for managing very high-risk scenarios. The Methodology Developer may clarify these aspects to ensure transparency and consistency in risk management.	<p>The methodology does not prescribe a fixed hierarchy of mitigation actions, since risks may differ significantly depending on project type, context, and operating conditions. This approach ensures that project developers can design mitigation measures that are proportionate and context-specific.</p> <p>With respect to the use of a buffer pool, the methodology establishes the following:</p> <ul style="list-style-type: none"> <i>As per the Proba Standard, this methodology defines the standard contribution to the Buffer Pool to 5%, mainly to address risks associated with incorrect monitoring of data. If such a case is identified during the verification events, then the buffer pool can be used as a safeguard.</i> <p>To ensure transparency and robustness, the methodology will clarify that project developers or the VVB, during project validation, may require the establishment of a buffer pool in specific cases where additional assurance is deemed necessary. This ensures flexibility while maintaining environmental integrity. We now state:</p> <ul style="list-style-type: none"> <i>If a project presents very high risks that cannot be fully mitigated through prevention or control</i>

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			<p><i>measures, an increased buffer pool may be required to provide additional assurance. In such cases, the size and structure of the buffer pool should be determined based on the project's specific risk profile and agreed upon during validation.</i></p>
38	1.8 Leakage & permanence	A. The methodology permits reversal of deductions after four years, however it lacks guidance on the type, depth, and standard of evidence required to support such claims. This may result in disputes during verification.	<p>We have now added a specific list of allowed documentation, for the reversal of the virgin production shift leakage risk.</p> <ul style="list-style-type: none"> ● <i>Acceptable evidence may include:</i> <ul style="list-style-type: none"> ○ <i>Market or industry data showing no increase in virgin production volumes.</i> ○ <i>Third-party market or trade analyses confirming stable or declining virgin supply.</i> ○ <i>Verified supply chain or procurement records from downstream users demonstrating actual substitution of virgin materials.</i> ○ <i>Independent expert or governmental reports confirming no material market displacement</i>
39	1.8 Leakage & permanence	B. The section focuses primarily on material displacement and activity shifting but does not fully address leakage that may arise from unintended demand stimulation (e.g., waste generation due to recovery incentives), nor does it examine potential upstream emissions leakage.	<p>Lets break these down:</p> <ul style="list-style-type: none"> ● Unintended demand stimulation <ul style="list-style-type: none"> ○ This is now covered based on the comment 14. Essentially, we treat this as a risk that needs to be managed by the project developer. ● Upstream emissions leakage <ul style="list-style-type: none"> ○ Essentially this leakage means an increase of emissions caused indirectly before the point of waste recovery, not just the downstream substitution effects. ○ We agree with this and we also added it as a leakage risk that needs to be managed with a tiered deduction (see section 1.8 Virgin production shift)
40	1.8 Leakage & permanence	C. The methodology identifies leakage risks such as displacement of existing recovery/market leakage and activity shifting, but it does not clearly define the extent of monitoring required or the expected level of risk to be assessed. The Methodology Developer may clarify these aspects to provide consistency in monitoring and ensure conservative treatment of potential leakage.	<p>As both of these are very hard to assess and quantify, we decided to move them into the risk section and added the scale threshold to simplify the process for most projects.</p> <p>The risks need to be monitored as per the Proba Standard.</p>
41	1.8 Leakage	D. The methodology requires project developers to	Same answer as in comment 40. See Proba Standard section 4.2.

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	& permanence	identify potential cross-border shifts in activities under the activity shifting risk. However, it does not specify how such shifts can be effectively monitored and verified in practice. The Methodology Developer may clarify the mechanisms or guidance for monitoring cross-border activity shifts to ensure consistency and credibility in leakage assessments.	
42	1.8 Leakage & permanence	E. Methodology Developer may provide clearer examples and conditions for assessing leakage risk levels. It may not always be appropriate to assume a low level of risk, and for more conservative approach minimum default adjustments may be considered. Methodology Developer may explicitly define all applicable scenarios; otherwise, users may be limited to applying only the three predefined risk levels to ensure transparency and accuracy.	<p>That is a very important point.</p> <p>To streamline the leakage section and process, the leakage levels have now been split up depending on the amount of generated emission reductions. Specifically we have introduced a standardized system where leakage deductions are determined by the scale of the project</p> <p>The project scale classification is based on commonly observed thresholds in GHG methodologies, where projects below 10,000 tCO₂e/year are typically considered small-scale with negligible market influence, while projects above 250,000 tCO₂e/year are likely to affect supply chains. These thresholds reflect practical differences in traceability, monitoring capacity, and risk of market leakage, and are consistent with scale categories used in other methodologies under carbon standards.</p> <p>Note: Small scale projects are also defined as per the Proba Standard section 4.6</p> <p>We are also now more specific on the allowed evidence (for the reversibility of the deductions):</p> <ul style="list-style-type: none"> ● Market or industry data showing no increase in virgin production volumes. ● Third-party market or trade analyses confirming stable or declining virgin supply. ● Verified supply chain or procurement records from downstream users demonstrating actual substitution of virgin materials. ● Independent expert or governmental reports confirming no material market displacement. <p>With these changes this leakage risk we believe is dealt with in a conservative, transparent and clear to execute way.</p>
43	2.1 Scope of activities	A. Methodology Developer may include formal definitions or footnotes for “internal” vs. “external” and “post-production” vs. “post-consumer” waste, ideally aligned with or EU Waste Framework.	<p>We have now updated the definition section to include these terms. Specifically:</p> <ul style="list-style-type: none"> ● <i>Internal waste: Waste materials generated and recovered within the same supply chain. These materials are reintegrated into the production of the same product (e.g., scrap or by-products from a facility that are cycled back into the same production line).</i> ● <i>External waste: Waste materials originating from a different supply chain and recovered for use in producing another product (e.g., waste from one industry that is recovered and used as an</i>

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			<p><i>input in a different manufacturing process).</i></p> <ul style="list-style-type: none"> • <i>Post-production waste: By-products or residual materials generated during the manufacturing process that are not part of the intended final product (e.g., trimmings, offcuts, process residues).</i> • <i>Post-consumer waste: Products that have reached the end of their useful life and are ready for final disposal (e.g., landfill, incineration) or recovery and recycling into new manufacturing processes.</i>
44	2.2 GHG sources	A. Table 3: Emission sources covered under this methodology provides an overview of relevant sources; however, the justification for including or excluding emissions from the manufacturing of the final product is not sufficiently clear. The Methodology Developer may reconsider the presentation of this table.	<p>Two requirements have been added to ensure that the core emissions from the manufacturing stage are properly considered:</p> <ul style="list-style-type: none"> • <i>During the project validation, the technical expert from the VVB must ensure that all the relevant emissions in scope are covered.</i> • <i>A third party verified LCA can be used as input for the quantification of emissions.</i> <p>Requirements for acceptable LCAs have also been added. See section 4.1.5.</p>
45	2.2 GHG sources	B. As the projects recover multicomponent materials (e.g., composites or blends) will likely involve multiple emission sources. The methodology doesn't address how to allocate or split emissions among components or between recovered and non-recovered fractions.	<p>To ensure consistency, the methodology will clarify the following:</p> <ul style="list-style-type: none"> • <i>Default approach - conservative mass allocation</i> <ul style="list-style-type: none"> ◦ <i>Emissions shall be allocated proportionally to the mass of the recovered versus non-recovered fractions. This provides a conservative and transparent basis for allocation.</i> • <i>Flexibility for project developers</i> <ul style="list-style-type: none"> ◦ <i>Project developers may apply more refined allocation approaches (e.g., energy content, economic value, process-specific yield factors) where robust data are available and can be validated by the VVB.</i> • <i>Non-recovered fractions</i> <ul style="list-style-type: none"> ◦ <i>Any emissions associated with disposal, treatment, or processing of the non-recovered fractions must be accounted for in the project boundary to avoid underestimation of net emissions.</i>
46	2.3 Spatial boundaries	A. Methodology Developer may provide minimum threshold that could guide when emissions from certain sub- stages (e.g., short-distance transport or minor packaging emissions) may be excluded if immaterial	<p>We added the following segment:</p> <ul style="list-style-type: none"> • <i>Materiality Threshold for Exclusions</i> <ul style="list-style-type: none"> ◦ <i>To balance accuracy with practicality, the methodology establishes a materiality threshold for excluding minor emission sources. Project developers may exclude emissions from specific sub-stages (e.g., short-distance transport, small-scale packaging, auxiliary inputs) if the combined impact of these sources is less than 5% of</i>

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			<p><i>total project emissions reductions.</i></p> <ul style="list-style-type: none"> ○ <i>This threshold ensures that immaterial sources do not create unnecessary data collection burdens, while still safeguarding the environmental integrity of the credited reductions. Any exclusions must be transparently documented, and project developers must demonstrate through reasonable estimates that omitted sources fall below the threshold.</i>
47	2.3 Spatial boundaries	B. In developing regions, spatial boundaries may include informal collection, sorting, or disposal systems. Methodology Developer may explain in detail which could otherwise lead to underestimation of emissions.	<p>The following segment has been added to address the case of informal collection systems:</p> <ul style="list-style-type: none"> ● <i>In developing regions, project boundaries must explicitly consider informal systems of collection, sorting, and disposal. Excluding these activities could lead to an underestimation of emissions or misrepresentation of waste flows. Project developers are therefore required to identify and include informal practices where they are material to the project boundary. In doing so, developers may draw on local market knowledge, stakeholder input, and guidance from the Validation and Verification Body (VVB)."</i> <p>Also see comment 46 for how materiality is defined.</p>
48	2.4 Temporal boundaries	A. Methodology Developer may provide acceptable minimum and maximum monitoring intervals (e.g., no less than quarterly, no more than biennial), with justification required for deviations (if any).	<p>We agree with the suggestion. The following has been included:</p> <ul style="list-style-type: none"> ● Project developers are required to specify the monitoring intervals for all relevant activities as per the Proba Standard (sections 4.2 and 4.5). Any deviations from the specified intervals must be clearly justified. ● The VVB shall ensure that the chosen interval is appropriate and sufficient to produce reliable monitoring data for each parameter.
49	2.4 Temporal boundaries	B. The methodology recommends a one-year monitoring period; however, it is unclear whether this applies to the baseline scenario, the project scenario, or both.	<p>A clarification has been added:</p> <ul style="list-style-type: none"> ● <i>Baseline Scenario</i> <ul style="list-style-type: none"> ○ <i>For each waste stream included in the project, a baseline scenario shall be defined at the start of the crediting period and shall remain fixed for its duration. If a new waste stream is introduced during the crediting period, a baseline must be established for that stream at the time of inclusion and remain fixed for the remainder of the period. Where the sourced waste streams remain unchanged, no updates to the baseline are required. See also extension of scope according to the Proba Standard (section 4.3).</i> ● <i>Project Scenario</i> <ul style="list-style-type: none"> ○ <i>Project scenario emissions shall be monitored as per the defined verification frequency. Monitoring must reflect the volume and type of waste recovered, as these parameters determine the emission reductions achieved.</i>

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50	2.4 Temporal boundaries	C. In the raw material stage, the methodology refers to the “preparation” of waste but does not define this term. The Methodology Developer may clarify what is meant by “preparation” to ensure consistent interpretation and application across projects.	<p>The methodology will clarify that “preparation” refers to all processes involved in recovering waste. Added the following footnote:</p> <ul style="list-style-type: none"> • <i>Preparation of waste refers to all processes required to recover waste, including sorting, cleaning, and any other necessary pre-treatment steps.</i>
51	3 Baseline scenario	A. The methodology requires that baseline waste fates be supported by “historical information, regional practices, market evidence, financial drivers or waste management statistics”. The Methodology Developer may clarify the required duration, level of detail, and acceptable data sources to ensure consistency and credibility in baseline determination.	<p>The methodology now specifies a fallback hierarchy (in descending order of priority) for defining the baseline fate of each waste stream and the acceptable data sources:</p> <ul style="list-style-type: none"> • <i>Historical data – An average of how the specific waste stream has been treated over the past 5 years.</i> • <i>Regional data – An average of how this waste stream has been treated within the relevant region of the country over the past 5 years.</i> • <i>National data – An average of how this waste stream has been treated nationally over the past 5 years.</i> <p>In addition, the following requirements apply:</p> <ul style="list-style-type: none"> • A 5-year average shall be used where possible. If unavailable, preference must be given to the most recent representative average data. • Where no data meeting the above requirements are available, the project developer shall use the best available and most representative information to define the baseline fate. The adequacy and credibility of such data must be justified in the project documentation and will be subject to assessment and approval by the Validation and Verification Body (VVB).
52	3 Baseline scenario	B. Under point 3 on baseline scenario, the description of how to account for virgin material substitution and diversion of waste from other sectors lacks sufficient clarity. The Methodology Developer may more clearly define the requirements, including the treatment of single stream versus multi-stream projects, and provide explicit guidance on how to consistently delineate and calculate emissions across these different cases.	<p>Point 3 has now been replaced with the following segment to improve clarity:</p> <p><i>(Old: “For projects that replace virgin materials with waste derived alternatives (e.g. Product A in Figure 2), the baseline includes the full linear supply chain of that product: raw material extraction, manufacturing, usage, and end-of-life. If the project also involves the diversion of waste from other sectors (e.g. Product B), then the baseline includes the average treatment or disposal of that waste stream. In single stream projects, only Product A’s chain is considered. In multi-stream projects, each relevant linear chain (A, B, etc.) is assessed individually.”)</i></p> <p>The following emission sources must be included in the baseline:</p> <ul style="list-style-type: none"> • <i>Transportation of waste to baseline EOL destination:</i>

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			<ul style="list-style-type: none"> ○ Based on the baseline fate analysis, transportation emissions shall be calculated. ○ These may only be credited if the waste is first transported to the recovery location before it would otherwise have been sent to its EOL destination. ○ If the waste is collected directly from its typical EOL location (e.g., landfill), then these emissions cannot be included, as they have already occurred. ● EOL emissions of waste <ul style="list-style-type: none"> ○ After generation, waste may follow different end-of-life (EOL) pathways as determined in the baseline fate analysis. ○ The share of waste entering each pathway shall be estimated, and corresponding average emission factors applied to calculate baseline EOL emissions. ● Production of raw materials <ul style="list-style-type: none"> ○ Recovered waste substitutes raw materials in scope. ○ The avoided emissions associated with extraction and processing of these raw materials shall be calculated. ● Transportation of raw materials <ul style="list-style-type: none"> ○ The avoided transportation emissions of the raw materials replaced by the recovered waste shall also be estimated. <p><i>Note 1: If the difference between baseline and project transportation emissions for waste is immaterial (below the defined materiality threshold), these may be considered to cancel each other out and excluded from MRV, simplifying monitoring.</i></p> <p><i>Note 2: The same assumption applies for transportation of raw vs. recovered materials, subject to the materiality threshold.</i></p> <p><i>Note 3: All baseline emission sources listed above must be calculated regardless of whether the waste originates from the same supply chain or from an external one (see Figure 1).</i></p> <p><i>Note 4: For waste that is sourced from multiple streams, all associated baseline emission activities (transport, EOL, etc.) must be calculated proportionately to the share of waste coming from each stream. Illustrative example: A project recovers 100 tonnes of waste to replace raw material A. Of this waste, 70 tonnes are sourced from Stream B and 30 tonnes from Stream C. The baseline emissions from transport, EOL, and other activities must therefore be calculated separately for Stream B (70%) and Stream C (30%), and then combined. The avoided emissions are then compared against the total substitution of 100 tonnes of raw material A.</i></p>

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53	3 Baseline scenario	C. The methodology developer refers to the use of historical information but does not specify how recent or relevant the historical data must be. Methodology Developer may define an appropriate timeframe or validity period for historical data to ensure consistency and relevance.	This has now been addressed as per comment 51.
54	4.1 Functional equivalence and comparative basis	A. The current section on functional equivalence and comparative basis does not explicitly address how these requirements would apply to complex or sensitive waste streams such as ozone-depleting substances, organic waste, chemical waste, wastewater, or medical waste. The Methodology Developer may clarify how functional equivalence can be established for such cases.	<p>We acknowledge the comment. The intention of this section is to establish functional equivalence based on the <i>recovered product</i>, not the waste stream itself. This ensures comparability across different project types, including those involving complex or sensitive wastes.</p> <p>In addition, we have enriched the eligibility section to exclude hazardous and risk-posing waste streams for now. In case there is interest for such waste streams, we will update the methodology with specific guardrails.</p>
55	4.1 Functional equivalence and comparative basis	B. Section 4.1.1 emphasizes the definition of functional requirements; however, it is unclear why functional performance is not explicitly integrated into the assessment framework. The Methodology Developer may clarify how functional performance is accounted for, or provide justification for its omission, to ensure that recovered products are evaluated not only against defined requirements but also against actual performance outcomes.	<p>Section 4.1.1 requires that the Project Overview Document (POD) defines the functional requirements of the baseline product and provides evidence that the recovered product meets these same criteria. Functional performance is therefore already integrated into the assessment framework through the requirement to present this evidence in the POD. Additionally, the Monitoring Table 5 (B1.1) mandates reconfirmation of service life and functional performance at every verification cycle (“QA/QC reports proving performance standards are met”), supported by proper documentation.</p> <p>To improve clarity, we added text in Section 4.1.1: <i>“The POD must define the functional requirements relevant to the baseline product and provide evidence that the recovered product satisfies these same criteria. This may include technical specifications, material property data, laboratory test results, or third-party certifications.”</i></p>
56	4.1 Functional equivalence and comparative basis	C. Section 4.1.3 on substitution ratio refers to “realistic performance,” but the term remains generic and open to interpretation. The Methodology Developer may clarify how “realistic performance” is to be defined and quantified and provide guidance or measurable	<p>We agree that the phrase “realistic performance” required clarification.</p> <p>Section 4.1.3 has been revised to specify that the substitution ratio must be justified using measurable parameters that demonstrate effective material performance in the intended application. This term refers to how efficiently the recovered product fulfills the same service or utility as the baseline product, considering measurable factors such as mass, density, and composition, as well as the performance data outlined in Sections 4.1.1 (Functional performance) and 4.1.2 (Reference Service Life).</p>

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		criteria.	
57	4.1 Functional equivalence and comparative basis	D. Section 4.1.4 on End-of-Life differences appears closely related to other subsections such as substitution ratio and reference service life, yet the distinctions between these concepts are not clearly articulated. The Methodology Developer may clarify how End-of-Life considerations differ from and interact with substitution ratio and service life.	<p>We agree that the relationship between Reference Service Life (RSL), substitution ratio, and End-of-Life (EOL) considerations can be made clearer. These elements represent distinct but complementary aspects of the comparative assessment:</p> <ul style="list-style-type: none"> • Reference Service Life (Section 4.1.2) addresses the duration of the product’s functional use phase – i.e., how long it performs its intended purpose before reaching its end of life. • Substitution ratio (Section 4.1.3) determines the quantity of recovered material required to provide the same functional service as the baseline product. • End-of-Life (Section 4.1.4) focuses on the emissions and treatment processes that occur after the product’s use phase, such as recycling, incineration, or landfill disposal. <p>To clarify this distinction, Section 4.1.4 is expanded with an explanatory sentence: <i>“End-of-life (EOL) considerations address the stage following the RSL of the product, focusing on emissions and treatment processes that occur once the product can no longer fulfill its intended function. This differs from the RSL, which concerns the product’s active use phase, and from the substitution ratio, which quantifies material equivalence during use”</i></p>
58	4.2 GHG emissions	A. The methodology refers to “functional units and boundaries” but does not provide a clear explanation of these terms. The Methodology Developer may clarify their definitions, scope, and practical application.	We added ISO-aligned definitions to the “List of definitions” related to functional unit and system boundary (project boundary).
59	4.2 GHG emissions	B. Section 4.2.1 of the methodology refers to the use of LCA databases for emission factors but does not specify the required timeframe or vintage of the data. The Methodology Developer may clarify whether there are expectations for data currency (e.g., within a defined number of years) and further explain if spend-based methods are acceptable as an alternative.	<p>Section 4.2.1 is updated to specify that emission factors must be sourced from LCA databases or peer-reviewed studies with data not older than 15 years from the date of project validation, unless more recent and relevant data are available.</p> <p>In addition, the methodology states that spend-based (expenditure-based) methods are not acceptable under this methodology, as they rely on monetary values rather than physical or process data</p>
60	4.2 GHG emissions	C. Section 4.2.2 on the transportation of raw and/or waste materials does not clearly specify whether the requirements apply to the baseline	<p>The following have now been added to the methodology to improve clarity:</p> <p><i>Transportation-related emissions must be calculated for both the baseline and project scenarios. However, these emissions are only required to be monitored if the difference between baseline and</i></p>

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		<p>scenario, the project scenario, or both. The Methodology Developer may clarify this distinction to ensure consistent and accurate accounting of transportation-related emissions.</p>	<p><i>project transportation is material (as defined by the methodology’s materiality threshold). Specifically, four categories of transportation emissions are considered:</i></p> <ul style="list-style-type: none"> ● <i>Baseline waste transportation</i> ● <i>Baseline raw material transportation</i> ● <i>Project EOL waste transportation</i> ● <i>Project recovered material transportation</i> <p><i>Emissions shall be calculated from the point of collection up to the relevant destination (e.g., recovery facility, raw material destination, or EOL site).</i></p> <ul style="list-style-type: none"> ● <i>If waste is sourced directly from its final EOL location (e.g., landfill), only project transportation emissions are relevant, as baseline transportation has already occurred.</i> ● <i>If waste is sourced directly from its original generation point, both the baseline (counterfactual) and project transportation emissions must be calculated. In such cases, part of the project emissions may be offset by the baseline, potentially canceling out.</i> <p>See also Comment 52.</p>
61	4.3 Uncertainty	A. Methodology Developer may define acceptable uncertainty limits for total project estimates or parameter inputs ensuring MD may not either over- or under compensate for uncertainty.	<p>The following was added:</p> <p><i>Rule for Emission Factor (EF) Selection and Conservativeness</i></p> <ul style="list-style-type: none"> ● <i>EFs reported with a mean and a 95% confidence interval (CI):</i> <ul style="list-style-type: none"> ○ <i>Project developers must select a value from the conservative end of the CI.</i> ○ <i>The chosen value shall be located 25% of the distance from the mean toward the lower (more conservative) bound of the 95% CI.</i> ○ <i>Example: If mean EF = 1.0 and 95% CI = [0.8, 1.2], then $EF = 1.0 - (0.25 \times (1.0 - 0.8)) = 0.95$.</i> ● <i>EFs reported as a single value (no 95% CI or range provided):</i> <ul style="list-style-type: none"> ○ <i>The reported value must be used directly, provided the source is credible (e.g., IPCC guidelines, national inventory, or peer-reviewed literature).</i> ○ <i>Where multiple single-value EFs are available, the most relevant must be used along with an explanation in the POD.</i> ○ <i>The choice must be justified in the monitoring report.</i>
62	4.3 Uncertainty	B. Methodology Developer may explain if high uncertainty leads to deduction in emission reduction (e.g., discount factor or buffer pool	<p>Uncertainty is already addressed through the use of conservative emission factors. No additional uncertainty deduction is applied.</p> <p>A buffer pool is generally not required, as this is targeted towards covering reversal risk. However, if</p>

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		contributions).	deemed necessary to manage <i>leakage risk</i> , a buffer pool may be established. In such cases, contributions can be reversible if sufficient evidence is provided to demonstrate that the risk has been mitigated.												
63	5 Net reduction of GHG emissions	A. Methodology Developer may provide a clearer step by step explanation of how net GHG emission reductions are calculated, specifically detailing how baseline and project-scenario emissions are derived and then applied in the overall emission-reduction equation to ensure transparency and ease of implementation.	We agree that the calculation of net GHG emission reductions should be presented as transparently as possible. However, we believe that a detailed step-by-step numerical example would go beyond the scope of the methodology itself, which is intended to define the principles, equations, and data requirements rather than provide implementation guidance. To improve clarity, we will provide or reference a worked example separately in the project guidance document or calculation tool, where users can see a complete numerical illustration.												
64	6.1 Monitoring	A. Methodology Developer may include a section in the methodology for parameters that are not monitored and are assumed to remain constant throughout the project. The standardized format is mentioned below: <table border="1" data-bbox="421 805 918 1005"> <tr> <td>Data / parameter:</td> <td></td> </tr> <tr> <td>Data unit:</td> <td></td> </tr> <tr> <td>Description:</td> <td></td> </tr> <tr> <td>Source of data:</td> <td></td> </tr> <tr> <td>Measurement procedures (if any):</td> <td></td> </tr> <tr> <td>Any comment:</td> <td></td> </tr> </table> <p>B.</p>	Data / parameter:		Data unit:		Description:		Source of data:		Measurement procedures (if any):		Any comment:		Agree with the suggestion. These constant parameters are considered as the “project scoping” parameters which are presented in Table 4. We also added: “All parameters for each monitoring period must be listed in the following standardized format: a) Data / parameter: , b) Data unit: , c) Description: , d) Source of data: , e) Measurement procedures (if any): , f) Monitoring frequency: , g) QA/QC procedures: , h) Any comment:”
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65	6.1 Monitoring	C. Methodology Developer may include explicit guidance within the methodology requiring that all data collected as part of the monitoring process be archived electronically and retained for a minimum of two years following the end of	This comment is addressed by the Proba Standard. Specifically: “5.11 Duration of the accessibility to the data The Proba platform is built on the public Polygon blockchain, IPFS and o-chain technology (Google Cloud Platform).”												

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		<p>the final crediting period. Unless otherwise specified, 100% of the relevant data should be monitored, and all measurements must be conducted using calibrated equipment in accordance with applicable industry standards. Furthermore, any monitoring provisions outlined in referenced tools within this methodology may also be maintained and adhered to. The methodology requires all monitored parameters for each monitoring period to be listed in the following standardized format:</p> <table border="1"> <tr> <td>Data / parameter:</td> <td></td> </tr> <tr> <td>Data unit:</td> <td></td> </tr> <tr> <td>Description:</td> <td></td> </tr> <tr> <td>Source of data:</td> <td></td> </tr> <tr> <td>Measurement procedures (if any):</td> <td></td> </tr> <tr> <td>Monitoring frequency:</td> <td></td> </tr> <tr> <td>QA/QC procedures:</td> <td></td> </tr> <tr> <td>Any comment:</td> <td></td> </tr> </table> <p>D.</p>	Data / parameter:		Data unit:		Description:		Source of data:		Measurement procedures (if any):		Monitoring frequency:		QA/QC procedures:		Any comment:		<p><i>Information related to claimed Carbon Credits on the blockchain will remain available indefinitely or as long as the Polygon blockchain exists. However, only the most important Credit attributes and lifecycle history are stored on the blockchain and/or IPFS. For other information, like documents and reports, data to guarantee integrity (e.g. checksum) is stored on the blockchain. When the information is removed from the Proba Platform, it will no longer be accessible. All information on the Proba Platform is stored for the duration of the GHG Project, plus 7 years.”</i></p> <p>And we fully agree that all monitored parameters must be stored in a proper format. For this purpose we added: “All monitored parameters for each monitoring period must be listed in the following standardized format: a) Data / parameter: , b) Data unit: , c) Description: , d) Source of data: , e) Measurement procedures (if any): , f) Monitoring frequency: , g) QA/QC procedures: , h) Any comment.”</p> <p>Also from section 4.2 of Standard project developers are generally expected to keep records of key data and metrics for the duration of the crediting period plus an additional five years (representing the Carbon Credit Validity period).</p>
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Measurement procedures (if any):																			
Monitoring frequency:																			
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66	6.2 Reporting	A. Methodology Developer may clarify the required duration for data archiving, as this would enhance the quality, transparency, and traceability of documentation maintained throughout the project lifecycle.	See comment 65.																
67	Other	A. Methodology Developer may explain how the potential rebound effects or market shifts (e.g., increased demand or displacement of existing recyclers) addressed in the baseline and emission reduction calculations.	These are now included as risks that need to be monitored and potentially mitigated (if applicable). See comments 14, 39 and 40.																
68	Other	B. The methodology outlines the need for functional equivalence but does not specify	<p>These aspects were already addressed in the methodology. To enhance clarity</p> <ul style="list-style-type: none"> • Durability is addressed in Section 4.1.2 (Reference Service Life), which requires evidence that the 																

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		<p>whether equivalence in durability and recyclability between recovered and virgin products must be demonstrated. The Methodology Developer may clarify if these aspects are required as part of establishing functional equivalence.</p>	<p>recovered product maintains its performance over time. Any difference in durability between the recovered and baseline products must be reflected in the emission calculations through adjusted lifetimes or replacement needs.</p> <ul style="list-style-type: none"> Recyclability is addressed in Section 4.1.4 (End-of-Life differences), which requires projects to compare and account for differences in recycling potential or reuse between the recovered and baseline products.
69	Other	<p>C. In section list of definition of the methodology: Product Carbon Footprint (PCF): Methodology developer may recheck the definition for the PCF to ensure it aligns with established standards.</p>	<p>We changed the definition to align with ISO:</p> <p><i>“The Product Carbon Footprint (PCF) is the sum of greenhouse gas (GHG) emissions and removals associated with a product’s life cycle, expressed as CO₂-equivalents. It is based on the principles of life cycle assessment (ISO 14040/14044) and covers all or part of a product’s life cycle (e.g., cradle-to-gate or cradle-to-grave), with clear system boundaries and assumptions. The PCF does not include offsets, and it requires transparent reporting of data, methods, and uncertainties to ensure consistency and comparability.</i></p> <p><i>Based on ISO 14067:2018, it is defined as the sum of GHG emissions and GHG removals in a product system, expressed as CO₂ equivalents and based on a life cycle assessment using the single impact category of climate change.”</i></p>