CARBON STANDARDS international

4000116EN

Inputs from Public Consultation: Global Biochar C-Sink V3.3

Section	Chapter	Currently valid text	Request content	Response (accepted/not accepted)	Justification
			Please correct the inconsistent use of versions 3.3 and 4.0 in the document	accepted	Since the new version of the standard does not introduce any structural changes to the requirements regarding project structure, prerequisites, or monitoring, it will be published as Version 3.3 rather than Version 4.0, contrary to the original announcement. The new version establishes the basis for classifying biochar into an Upper Persistence Class based on additional properties of the biochar. The calculation of the carbon sink based on the proportions of GPC and SPC remains unchanged. During the public consultation, additional topics were raised that pertain to a more comprehensive structural revision of the standard. These points will be reviewed in the coming months and may form the basis for the development of Version 4.0.
4	10	[...] a C-Sink Matrix Provider may not use the EBC or WBC logo on its products.	A C-Sink Matrix Provider may not indicate product-level certification, but may use the EBC or WBC logo on its products to indicate the use of biochar from an EBC certified supplier. Or may specify that the biochar used is from an EBC certified supplier. The scaling up of certified carbon removal requires the biochar market to develop into greater levels of maturity. For this to happen it is critical for biochar producers to be able to create synergies with new or existing actors in the different sectors (soil, substrate, feed, etc) in order to integrate biochar into familiar products within those sectors, with existing customers. If a biochar producer has gone through the full auditing and certification process, and is able to provide full traceability, transparency, and emission reporting for the biochar going into a Matrix Provider: what is the reason for not allowing communication of the biochar and C-sink use? Additionally, by not allowing the Matrix Provider to communicate that they are using biochar from a certified supplier eliminates the incentive to seek certified suppliers. This will help non-certified suppliers and ultimately degrade trust in the biochar market by facilitating the use of lower quality and potentially contaminated biochars. Finally, it is in CSI's best interest to increase visibility of certified biochar, its producers, and the products used that contain certified biochar. There might need to be a labelling distinction between a product-level certification and the use of a certified biochar as an ingredient in a Matrix, but both are incredibly necessary to achieve visibility and achieve our common goal.	not accepted	The use of the EBC logo should remain reserved exclusively for certified manufacturers and processors. At Carbon Standards, we guarantee the quality of the product to end customers through the EBC logo. If there is no contract with the user, there is no way to monitor the use of the logo and thus maintain its value. Based on the combined feedback during the public consultation C-Sink Matrix Provider will not be introduced with Update 3.3. Existing roles, contracts, and certification requirements remain unchanged.

Section	Chapter	Currently valid text	Request content	Response (accepted/not accepted)	Justification
4	10	C-Sink Matrix Providers must deliver the following data to their contracting entity: [...] Declaration of the amount of product produced and the biochar content (in mass percent) incorporated into the matrix.	Eliminate the requirement for declaration of exact biochar content in the final product. Or at least allow for ranges of max/min amounts, following what national and EU legislation often requires. Requiring Matrix providers to disclose the exact amount of biochar in the final product creates an enormous barrier for the development of those commercial relationships and consequently for development of the certified biochar market as a whole. Matrix Providers who chose to incorporate biochar into one of their products will often do so because it differentiates them within their market segment. This involves product development, which often involves trials and investment of time and resources into R&D. Therefore the sharing of the amount of biochar in the final product is confidential information and not something they are willing to share, including to their suppliers. As biochar suppliers, we have see this first hand with multiple potential Matrix Providers. Secondly, for the supply of certified biochar, which has the traceability of the C-sink up to the matrix, what is the benefit of this requirement in comparison to the burden it creates?	not accepted	Based on the combined feedback during the public consultation C-Sink Matrix Provider will not be introduced with Update 3.3. Existing roles, contracts, and certification requirements remain unchanged.
Glossary		A company that trades bulk biochar or bulk biochar-based products or that repackages biochar or biochar-based products and/or uses new labels. EBC/WBC certification as a Biochar Trader is required only when the traded products carry the EBC/WBC-certified label	Revised Biochar Trader definition says EBC/WBC certification is only required "when traded products carry the EBC/WBC-certified label" — clarify whether a trader moving large quantities of unlabeled certified bulk biochar has any registration obligation.	accepted	Sentence was removed. The trade of unpackaged, loose goods requires certification as EBC/WBC processor.
Glossary		An entity that incorporates EBC/WBC-certified biochar into an eligible C-sink matrix without further physical or chemical processing of the biochar itself. A C-sink matrix provider is not required to hold EBC/WBC processor certification.	The boundary between C-Sink Matrix Provider and Biochar Processor is defined by "physical or chemical processing of the biochar" — clarify whether mixing biochar with water or liquid fertilizer counts as processing; a list of examples is needed.	not accepted	No change required as a glossary can never be exhaustive. Based on the combined feedback during the public consultation C-Sink Matrix Provider will not be introduced with Update 3.3. Existing roles, contracts, and certification requirements remain unchanged.
Glossary			CINK is not explained in the glossary; C-Sink_H is mentioned but not further used except in the formula on page 13. Add CINK to the glossary or reconcile the C-Sink_H entry.	accepted	CINK_H is included as synonym to C-Sink_H and serves as notation equivalence statement
Glossary		An endorsed entity to hold C-Sinks. They are responsible for ensuring transparency when acting on behalf of a beneficiary. C-Sink Traders have an account in the Global C-Sink Tool and Registry. This role is endorsed by CSI.	The "beneficiary" in the C-Sink Trader definition is not defined — add or cross-reference.	accepted	Details on the CSI-endorsed C-Sink traders are removed from Global Biochar C-Sink Standard. For details please refer to the Principles of Global C-Sink Standards https://www.carbon-standards.com/docs/transfer/4000232EN.pdf
Glossary		Organic and mineral materials to which biochar is mixed. The biochar to matrix ratio must be lower than 1:1 (v/v) to exclude that the biochar could burn unintendedly or be recovered for combustion or other uses. See matrix positive list on the Carbon Standards' website.	The C-Sink Matrix definition uses (v/v) without making explicit in wording that the 1:1 ratio is by volume, not weight.	accepted	Formulation was adapted for clarity. A biochar product considered a carbon sink must not contain more than 50% biochar on a volume base.

Section	Chapter	Currently valid text	Request content	Response (accepted/not accepted)	Justification
13		A GPS point of the land or area where the C-sink was established.	Section 10.1 states matrix incorporation can be "the end of tracking" and that GPS "is not required" for Matrix Provider pathways — this conflicts with Chapter 11.1 (geo-localization required for all C-sinks >1 t CO_2e) and Chapter 13 registration item 2 (GPS point required). Please reconcile these three sections explicitly.	not accepted	Clarification added: In case of diffuse C-Sinks this is the place of embedding to the matrix.
3	6		Section 3.6 criterion (i) specifies a "heterogeneity score ≤8" that is never defined in the document. Define the calculation or provide an explicit reference to the endorsed laboratory protocol.	accepted	Additional document was published on webpage: https://www.carbon-standards.com/docs/transfer/4000264.pdf
3	3	Due to the feedstock-dependency, SEC is not used as a standalone criterion for assigning biochars to persistence classes under this standard. Its role at present is limited to supporting quality control at the production site and complementing the primary proxies H/C_org, Ro, and BC_HyPy.	Section 3.3 states SEC is "not used as a standalone criterion" but gives no guidance on whether SEC data must be submitted alongside H/Corg in endorsement or certification submissions — clarify if required and at what frequency.	not accepted	SEC: Solid electric conductivity, or Electrical conductivity of the pyrogenic solid is part of the EBC-biochar Basic Package which is required to be analyzed per batch (EBC, Summary 3.1 and 6.1). It is visible via the QR-code for every certified biochar batch.
3	6		Section 3.6 qualifies biochars for the upper class if they meet Ro OR HyPy — clarify what happens when the two proxies give discordant results (e.g. Ro ≥3.8% but BC_HyPy <90%).	not accepted	The standard states: "Biochars are assigned to the new upper persistence class if they meet at least one of the following criteria." Meeting one criterion is therefore sufficient to be assigned to the upper persistance class.
3	6		Section 3.6 criterion (i) specifies ≥500 measurement points per sample but does not define how many samples must be collected per batch or production period, nor the required sampling interval or sample mass — will CSI publish a dedicated sampling protocol analogous to EBC sampling requirements for H/Corg?	accepted	Clarifying paragraph is added to chapter 3.7: The biochar sample used for persistence class assignment must be the same representative sample taken for the EBC/WBC batch certification. Sampling frequency follows Chapter 5 of the EBC standard. Analyses beyond the EBC Basic package - specifically random reflectance (Ro) and hydropyrolysis (BC_HyPy) - must be requested as part of the EBC/WBC batch analysis; separate sampling and analysis cannot be accepted (cf. Section 1.3). If Ro or BC_HyPy analyses are to be submitted retroactively for an already certified EBC/WBC batch, the representative sample must be registered in the Global Biochar Tool prior to analysis, and elemental analysis together with solid-state electric conductivity (SEC) as defined in Table 1 of the EBC standard must be provided to ensure unambiguous assignment to the batch.
3	7	If an updated calculation method allows higher GPC proportions for a given biochar batch, existing register entries may be adjusted retrospectively under conditions to be specified at the time of the update	(5) Section 3.7 states existing registry entries may be adjusted retrospectively if updated methods allow higher GPC proportions — provide a timeline for when Ro/HyPy data will become mandatory for upper-class certification.	not accepted	The option for retroactive ratings is currently still under review. Once details are finalized, Carbon Standards will provide an update in a timely manner.
4	1		Section 4.1 states the TCE formula is derived from the IRF "as described in Schmidt and Hagemann (2026)" — a paper not yet publicly available. The IRF parameters must be fully specified in the standard or a publicly accessible document before the standard enters into force; default values or the derivation formula must be shown.	accepted	Meanwhile the paper is publicly available and referenced in the Global Biochar C-Sink Standard.

Section	Chapter	Currently valid text	Request content	Response (accepted/not accepted)	Justification
4	4		Section 4.4 introduces a minimum delivery horizon of 5 years for methane offsetting — provide the scientific justification. Clarify whether a delivery horizon of <5 years is genuinely prohibited and why simultaneous application would not qualify.	not accepted	Limiting the time horizon to 5-20 years is a result of economic and scientific considerations. Past experience has shown that there is no market requirement for time horizons less than 5 years and therefore we discontinue to offer this option.
4	2		Section 4.2 requires emissions to be recorded separately in tons of CO_2, N_2O, and CH_4 — confirm whether the CSI Global C-Sink Tool will be updated to accept gas-by-gas entries and provide a timeline; if not, standard and tool will be inconsistent.	not accepted	In Biochar Tool (corresponds to the data entry for emission portfolio) N2O emissions are monitored seperately. For reporting in the emission portfolio N2O emissions are converted to tCO2e using the GWP100 given in the Global Biochar C-Sink Standard.
4	4		Section 4.4 grants a transition period until 1 January 2027 for $GWP_{100} = 25$ — clarify whether this applies solely to methane offsetting calculations or also to the emission portfolio calculations in Section 4.2.	accepted	The method published in Global Biochar C-Sink V3.2 can be used until the end of 2026.
10	3		Section 10.3 exempts traders selling "packaged biochar" from registration — "packaged biochar" is not defined. Does a big bag (IBC, 500–1000 kg) qualify? Does the exemption apply at any scale? Provide a definition or examples.	not accepted	Section 10.1 of the Global Biochar C-Sink Standard lists a big bag as a packaging unit. "From the moment a packaging unit filled with biochar (e.g., a big bag = super sack or a container) leaves the EBC or WBC certified factory site, many things can happen that may reduce or eliminate the potential C-sink of the traded biochar."
10	4		Section 10.4 states the VVB "may audit the matrix provider's records" — but Matrix Providers are not registered with CSI and have no formal agreement with them. Clarify the legal mechanism by which CSI or the VVB can compel cooperation.	accepted	The challenge arises from the fact that, in the absence of a designated C-Sink Manager as a single legal entity within the Global Biochar C-Sink framework, legal responsibility remains with the certified entity holding the C-sink potential (i.e. certified producer or certified processor). This entity either confirms that the C-sink material has been incorporated into the matrix or obtains confirmation from the end user of the biochar, and subsequently assumes the role of First C-Sink Owner in the Global C-Sink Registry. The introduction of an uncertified role (i.e. C-Sink Matrix Provider) into the value chain would therefore require clearly defined responsibilities, a shared and comprehensive understanding among stakeholders, and legally binding confirmations from all certified entities involved. In the currently proposed version, safeguards against potential misuse may require further strengthening. In light of this feedback and the broader consultation input, the C-Sink Matrix Provider role will therefore not be introduced in Update 3.3. Existing roles, contracts, and certification requirements remain unchanged. A comprehensive review and further development of role definitions within the Global Biochar C-Sink framework will be addressed in the near future.
10	4		Section 10.4 references "a flat-rate transport emission factor agreed with the upstream supplier" but provides no guidance on what an acceptable flat rate looks like or how it should be documented — provide default values or a methodology reference.	not accepted	Based on the combined feedback during the public consultation C-Sink Matrix Provider will not be introduced with Update 3.3. Existing roles, contracts, and certification requirements remain unchanged.
12	3, 4, 5		Sections 12.3 (concrete), 12.4 (asphalt), and 12.5 (composites) will logically involve Matrix Providers but make no reference to them or their different documentation requirements — add cross-references in each section.	not accepted	Based on the combined feedback during the public consultation C-Sink Matrix Provider will not be introduced with Update 3.3. Existing roles, contracts, and certification requirements remain unchanged.

Section	Chapter	Currently valid text	Request content	Response (accepted/not accepted)	Justification
			To ensure consistency with CRCF, definitions [2.1] through [3.8] from the "CRCF Assessment Protocol - Part C3: Biochar" should be incorporated into the Global Biochar C-Sink Standard.	accepted	The definitions have been adopted in the relevant sections.