Regulatory Disclosures

These disclosures are published in accordance with Annex III.2 of Regulation (EU) 2024/3005 of the European Parliament and of the Council on the transparency and integrity of ESG rating activities. They fulfill the requirement for ESG rating providers to make available their methodologies, models and key rating assumptions to users of ESG ratings"

A. Information on the rating methodologies used and changes

1. Scientific data and assumptions underpinning the ratings

All methodologies developed by Carbon4 Finance (C4F) are rooted in international scientific frameworks, academic consensus and global policy objectives for environmental conservation.

Climate framework

Regarding C4F products covering climate transition risks and physical climate risks (CIA and CRIS), the models incorporate the IPCC's consensus on the anthropogenic origins of climate change and align with the objectives of the Paris Agreement (limiting global warming to 1.5°C or 'well below 2°C' by 2100). The rating scales and forward-looking trajectories are directly calibrated against the scientific, climate and macroeconomic scenarios of the International Energy Agency (IEA), the IPCC or the NGFS, such as:

- the International Energy Agency (IEA) for climate transition scenarios: STEPS, APS and NZE scenarios;
- Intergovernmental Panel on Climate Change (IPCC) for the assessment of physical risk:
    - RCP (Representative Concentration Pathways) scenarios 4.5 (intermediate), 6.0 (late high emissions) and 8.5 (extreme business-as-usual);
    - SSP (Shared Socioeconomic Pathways) SSP3-7.0 (regional rivalries / very high emissions) and SSP5-8.5 (fossil fuel-based development).
- Network for Greening the Financial System (NGFS) for the projection: Global Change Analysis Model (GCAM), which models the interactions between the economy, energy, land use and climate to assess the impact of environmental policies.

Beyond macroeconomic trajectories, all models are based on scientific and physical reference data. For the transition analysis (CIA), the emission factors required to convert activity flows into a carbon footprint are sourced from recognised public and academic databases (ADEME, International Energy Agency, Ecoinvent, etc.) as well as proprietary emission factors.

Biodiversity framework

For the 'Dependencies' module from BIA-GBS biodiversity product, the model is based on:

- the ENCORE[1] scientific reference framework (Exploring Natural Capital Opportunities, Risks and Exposure):
    - a reference tool developed by UNEP-WCMC (UNEP World Conservation Monitoring Centre) and the NCFA (Natural Capital Finance Alliance), in collaboration with the ISI; it identifies and quantifies, in particular, the dependence of various economic sectors and industrial processes on ecosystem services.
    - It is designed specifically for the financial sector as it enables institutions to assess their portfolios' exposure to nature loss. It directly supports the implementation of risk analyses based on the TNFD framework.
- the EXIOBASE[2] database:
    - A reference multi-regional input-output (MRIO) matrix developed by a consortium of European researchers under the auspices of the European Union, it maps and models all trade and financial flows in great detail.
    - It enables the economic flows of companies to be translated into concrete levels of physical pressure and dependence by tracing their entire global value chains, from direct operations (Scope 1) to their upstream supply chains (upstream Scope 3).

Prioritising physical indicators

Unlike purely financial approaches or those based on declarative ESG ratings, the philosophy behind C4F estimators and models prioritises real physical data as input (e.g. energy consumption mix, production volumes, load factors, or physical activity flows) to reflect the impact or risks of economic entities.

[1] https://www.encorenature.org/

Integration of the extended value chain

The modelling applied to companies takes into account all direct and indirect impacts (Scopes 1, 2 and Scope 3) or rigorously distinguishes between specific operational phases (e.g. construction and use phases for the Climate Bonds product via the PCAF framework). For the Sovereigns product, the analysis incorporates both domestic emissions and the carbon footprint, taking into account imports and exports in order to neutralise biases arising from industrial relocation.

The scientific data and assumptions related to each database are detailed in the methodological guides for each product in the "Resources" section:

- For CIA: https://platform.carbon4finance.com/methodology/cia
- For BIA dependencies: https://platform.carbon4finance.com/methodology/bia-dependency
- For CRIS: https://platform.carbon4finance.com/methodology/cris

2. Key performance indicators (E, S and G factors)

Carbon4 Finance is a data provider specialising in the analysis of climate, environmental and biodiversity impacts and risks. Consequently, for all ratings featured in the databases, only the Environmental Factor (E) is covered (100 per cent of the overall rating); the Social (S) and Governance (G) Factors are not covered.

Regardless of the nature of the entity being assessed (companies, projects or sovereigns), the models used rely as much as possible on physical performance indicators. These key indicators illustrate up to three fundamental cross-cutting dimensions:

- **The observed trajectory and trend (past dimension):** this dimension validates the materiality of efforts already made by assessing historical data. For transition risk, it draws on the historical percentage of actual GHG emissions reductions and the observed rate of decarbonisation relative to peers to describe the trend to date.
- **Current contribution and exposure (present dimension):** this dimension measures the entity's vulnerability or immediate impact in relation to environmental challenges. Depending on the products, it aggregates physical intensity indicators (e.g. Scope 1, 2 and 3 GHG emissions, which may be reported per tonne or per number of product units sold), structural dependency indicators (e.g. exposure to the erosion of ecosystem services), or indicators of direct geographical exposure or exposure along the value chain (probability and intensity in relation to seven major climatic hazards).

- **Forward-looking alignment and resilience (future/strategic dimension):** this dimension quantifies the credibility of medium- and long-term commitments by comparing action plans with reference scenarios (IEA, IPCC, IPBES). For transition risk, key indicators measure the alignment of capital expenditure (CapEx) allocation, the credibility of companies' decarbonisation targets, or the ambition of Nationally Determined Contributions (NDCs) for governments.

3. Assessment of the E, S and G categories of aggregated ESG ratings

Carbon4 Finance does not provide an aggregated ESG rating.

4. Potential shortcomings in methodologies and measures taken to address them

The characteristics and structural limitations inherent in non-financial modelling and rating exercises are as follows:

Use of estimates and sector-specific benchmarks

In order to ensure broad rating coverage and address the lack of published data from certain entities, Carbon4 Finance models incorporate algorithmic estimation methodologies and sector benchmarks. While these approximations ensure the overall consistency of the assessments, their statistical representativeness and level of granularity may vary for specific economic segments or niche activities with a more limited data history.

Potential dependencies and biases linked to available data

The methodologies developed by Carbon4 finance rely on data gathered from official company disclosures and reference documents. In some cases, the dimensions to be assessed may, in practice, be difficult to implement due to the absence of the necessary data in public reports. To address this limitation, estimates or sectoral and/or geographical indicators are applied where possible.

Furthermore, Carbon4 Finance draws on scientific and academic research in the fields of climate and biodiversity. Given the evolving nature of this research this may limit certain aspects. In these specific cases, the methodologies depend on the progress of research and cannot capture aspects that are not yet fully developed (e.g. invasive alien species and marine aquatic biodiversity).

Developments in prospective scenarios and scientific frameworks

Carbon4 Finance assessments incorporate forward-looking assumptions based on current scientific knowledge and major international reference scenarios (particularly regarding transition trajectories). As these reference frameworks are subject to

change, methodological assumptions are regularly adjusted to align with the latest scientific advances. These necessary updates anchor the ratings within their temporal context without compromising the consistency of the analyses. These structural limitations form an integral part of the analysis of non-financial risks. Users are encouraged to view these ratings as part of a multidimensional assessment.

Measures taken to address potential methodological shortcomings

To address these limitations and ensure the robustness of the indicators provided, the following remedial and mitigating measures are systematically applied.

Data hybridisation and enrichment using targeted indicators

To address the lack of published data and refine sector-specific benchmark data, Carbon4 Finance uses rigorous sectoral and/or geographical estimates or indicators derived from its 'bottom-up' analyses wherever possible. For climate bonds, the methodology also draws on validated external standards such as those of the Climate Bond Initiative, which help to correct for smoothing effects by ensuring that the most stringent technical criteria for projects are taken into account.

In order to ensure comparability and to address the absence or inconsistency of disclosures regarding the items listed (incomplete scopes, unexplained variations), reported data (particularly regarding Scope 1, 2 and 3 emissions) is verified wherever possible. In the event of anomalies or missing data, analysts employ proprietary estimation methodologies based on physical activity flows (energy consumption, production volumes, etc.) and over 200 benchmark emission factors, rather than on simple sectoral averages. This precise and consistent approach ensures the traceability and reliability of the targeted indicators.

Scientific monitoring and the gradual integration of research

Given the current lack of maturity in certain environmental dimensions, Carbon4 Finance maintains active monitoring. The methodologies incorporate new, fundamental areas of analysis as soon as research provides a robust and stabilised framework (notably on biodiversity with the updated versions of the EXIOBASE and ENCORE databases), enabling to gradually fill in the gaps whilst ensuring the rigour of the selected criteria

Governance of updates and long-term stability

In order to incorporate developments in forward-looking scenarios without compromising the consistency of the analyses, the update cycle for C4F scientific models combines the robustness of established and deployed versions with a gradual roll-out of new versions. These regular adjustments align the assumptions with the latest scientific advances whilst ensuring users have the continuity required for a multidimensional risk assessment.

5. Methodology Review Policy

The procedures for revising methodologies are described in the Methodology Review Procedure, available in the appendix I.

6. Review of a rating and explanation of changes

Any modification to the ratings – understood as a change to the rating based on pre-existing sources following the identification of a methodological or analytical anomaly, or one related to the inputs – takes place within a strict and exceptional framework. Unlike the periodic reviews of models discussed at the annual committee meeting, these substantial modifications adhere to the following principles:

- Exceptional nature and rectification protocol: a modification is made solely in response to the detection of an inconsistency, a technical bias or a breach of integrity affecting the data sources or estimation models, requiring a corrective to preserve data integrity. This process is distinct from the incremental development of models and is subject to a rigorous internal documentation protocol that enables the origin and resolution of such issues to be traced.

- Reliability objectives: the sole purpose of these interventions is to restore the accuracy and consistency of the rating. They ensure that the rating issued faithfully reflects the application of the methodology in force, by correcting any discrepancies in processing or calculation, or the erroneous integration of primary data and proxy indicators.

- Impact on ratings: an upward or downward adjustment to a rating is the automatic result of the correction made. The extent of the change depends on the nature of the parameter being rectified (for example, a correction to an emission factor, to a processing algorithm for a sectoral estimator, or the reassessment of an erroneous primary data source). These adjustments are never determined in advance but result directly from the restoration of methodological compliance.

In line with Carbon4 Finance commitment to transparency, any substantial change to the methodologies or rating models is communicated to all users prior to its coming into effect. This notification is intended to enable them to anticipate the changes.

When publishing the revised ratings, users are provided with a summary explanation, where possible, of the factors that have led to the methodological change or the update to the data or assumptions. Where relevant to understanding, an explicit comparison between the previous rating and the new, revised rating, accompanied by an explanation of the direct consequences of the change for the assigned rating, is also provided.

These notifications are sent by email to users.

7. Date of the last revision of the methods

As part of Carbon4 Finance commitment to continuous improvement and compliance with scientific standards, all Carbon4 Finance rating methodologies are subject to an annual review by a dedicated committee. This governance process ensures the incorporation of the latest scientific consensus, changes to reference scenarios and regulatory updates, as well as the consideration of any feedback from clients or rated entities. The Committee's most recent session, which concluded in November 2025, approved the methodological adjustments in force for the current cycle. This work is documented in archived technical reports, which serve to demonstrate the robustness of the models and to provide detailed responses to enquiries from stakeholders regarding the basis of the analyses.

Product	Date of methodology review	Version number
CIA Bottom-up	13 November 2025	v3
CIA Top-down	19 November 2025	v2
CIA Sovereigns	19 November 2025	v1
CIA Climate Bonds	19 November 2025	v1
CRIS	19 November 2025	v1
BIA-GBS	19 November 2025	v2

8. Consistency with international agreements

Carbon4 Finance's ratings, which focus exclusively on the Environmental (E) factor, are structurally consistent with the European Taxonomy and major international agreements, although their objectives and methodologies may differ in nature.

Consistency with the European Taxonomy (EU Regulation 2020/852)

Carbon4 Finance ratings are consistent with the taxonomic alignment percentage (indicators provided in CIA data box) though they are not directly correlated. The Taxonomy is based on a binary approach, expressed as percentages of eligibility and alignment by activity, whilst Carbon4 Finance ratings assess an entity's overall transition performance in a more nuanced, graded manner and across a broader scope. A high alignment rate generally results in a better rating, as 'green' activities as defined by the EU automatically reduce carbon intensity and improve emissions avoided. The reason for any discrepancy lies in the complementary nature of the approaches: whilst the Taxonomy assesses the compliance of a company's specific activities at a given point in time based on strict technical criteria (DNSH, minimum

safeguards), C4F rating incorporates a dynamic, retrospective and forward-looking dimension (strategy, CAPEX) as well as a comprehensive analysis of the value chain (upstream and downstream Scope 3 emissions), which may qualify the score of a company that is otherwise well aligned with its direct activities.

Alignment with international agreements

Carbon4 Finance methodologies are inherently designed to measure consistency with international reference frameworks:

- Paris Agreement: alignment is measured by the gap relative to sectoral carbon budgets compatible with 1.5°C or 2°C trajectories (IEA, IPCC);
- Kunming–Montreal Framework: for biodiversity, the score is correlated with targets for reducing pressures on ecosystems and ensuring transparency regarding dependencies.

Explanation of significant discrepancies

A discrepancy between a rating and a regulatory or international indicator may arise for two main reasons:

- scope of analysis: C4Fmodels systematically include Scope 3 emissions, whereas certain regulatory frameworks or international targets focus primarily on direct emissions;
- severity of scenarios: more conservative scientific scenarios than the policy thresholds defined in certain agreements are sometimes used;

B. Information on data-related processes

1. Data sources

Carbon4 Finance bases its analyses on a rigorous and transparent data architecture:

Data from entities (companies and financial institutions)

C4F primarily use publicly available information from annual reports, sustainability reports, regulatory disclosures on non-financial performance and CDP questionnaires (where these are publicly available). These reports are increasingly incorporating data derived from sustainability reporting standards (notably the CSRD Directive 2013/34/EU, the Taxonomy Regulation (EU) 2020/852 and the SFDR (EU) 2019/2088).

Macroeconomic and public databases

For analyses of the CIA Sovereigns product, the CRIS product (physical risks) or the BIA-GBS product (dependence on ecosystem services), public reference databases (World Bank, IEA, IMF, UNFCCC, EXIOBASE) are used.

Financial data

Carbon4 Finance also uses third-party financial data providers for financial metrics or the geographical breakdown of revenue relating to the entities being assessed, or their instruments.

Third-party assurance engagements

The fact that a sustainability report or issuer data has been subject to an assurance engagement by an independent third party (audit) is not a selection or weighting criterion taken into account in C4F analytical models. Indeed, the level of assurance provided by an external audit of ESG data remains limited assurance (rather than reasonable assurance, as is the case for financial data), and requires that all published ESG data, even if audited, be treated with caution, and that the necessary checks and verifications be carried out to ensure its completeness and reliability.

Transition plans

The analysis of companies' transition plans, arising from sustainability reporting standards, is integrated into the rating methodology for the CIA (transition risk) product. The key elements of the approach are as follows:

- Data sources: the analysis rely exclusively on information publicly disclosed by companies, particularly in their public financial and sustainability reports.

- Analysis of transition plans: data extracted from these reports is systematically analysed using proprietary rating frameworks specific to each sector. These frameworks primarily assess: (i) emissions reduction targets (Scope 1, 2 and 3), (ii) the levels of investment dedicated to the transition, and (iii) the governance and strategy put in place to achieve these objectives.

Collection of non-public data

Carbon4 Finance does not collect any non-public data for its CIA, BIA-GBS Dependency and CRIS databases.

2. Use of estimates, sector averages and underlying methodology

Cases where estimates and sector averages are used

Estimates and sector averages are used in a targeted manner to address any limitations in the availability of raw data and to ensure comparability with consistent market coverage, in accordance with the following configurations:

- **Completeness of extended value chains:** for analyses of companies or projects financed by green bonds, the estimates make it possible, for example, to fill in gaps in unpublished data, such as Scope 3 emissions (which are systematically recalculated) or the impact of funds allocated to sub-projects.

- **Parametric approaches:** where a bottom-up analysis of an individual company is not carried out, a parametric approach is applied. The indicators and rating are then estimated using average sectoral ratios calculated on the basis of bottom-up modelling for the relevant sector.

- **Adjustment of macroeconomic and geographical granularity:** sector-specific ratios, international macroeconomic models or data from specialist third-party providers may be used to reconstruct the geographical and sectoral breakdown of turnover or to supplement missing national statistics.

- **Ecosystem dependency coefficients (biodiversity):** by design, the models rely on sectoral coefficients which are, by their very nature, sectoral averages. A uniform dependency profile is applied to all entities falling under the same activity classification. The use of these averages is essential to compensate for the unavailability of operational information, particularly when dealing with residual or aggregated activity classifications (e.g. 'n.e.c.' for 'not elsewhere classified'), thereby ensuring comprehensive coverage of the portfolios.

Principles of the underlying estimation method

All methodologies rely on recognised sources and rigorous models developed in-house, in accordance with the following principles:

- **Application of benchmark coefficients and intensity ratios:** depending on the product, the estimation methods are based either on the application of intensity ratios (calculated per unit of turnover or physical flow) or on sectoral arithmetic means derived from benchmark samples. These benchmarks are drawn from internal analytical databases or third-party macroeconomic reference frameworks, enabling us to model environmental profiles consistently in the absence of comprehensive primary data.

- **Exclusion regarding direct scientific modelling:** Climatic indicators derived from physical laws or pure climate models (such as prospective climatic hazard

scores relating to extreme events) are calculated on the basis of strict geospatial data and are not subject to any sector-based averaging in order to preserve their discriminatory power.

3. Data update and revision policy

The procedures for revising methods are described in the policy on data updates and the revision of historical data, available in the appendix II.

4. Data quality controls

Data quality checks

To address the heterogeneity and potential lack of comparability of raw data, and to ensure the accuracy, consistency and reliability of the ratings provided across all its products, Carbon4 Finance implements a systematic quality control protocol.

- Checks on **input** data: before any data is incorporated into models, raw data (issuer disclosures, public statistics or third-party sources) undergoes systematic verification:
    - Validation of the conformity of data structures and the completeness of required fields (format and completeness);
    - Verification of the temporal relevance of the information and compliance with the scope of analysis (coverage and timeliness);
    - Where historical data is available, a reconciliation may be carried out to identify breaks in trends, atypical variations or potential reporting errors at source (detection of historical anomalies).
- Checks on **processed** data: during the modelling and calculation phase (application of physical emission factors, breakdown by activity process, modelling of uncertainties or dependencies):
    - Verification that calculation chains are proceeding correctly and that there are no algorithmic flaws or inconsistencies (integrity test);
    - Checks for physical and sectoral consistency applied to the intermediate values recalculated by our proprietary models (business-specific tests).
- Checks on **output** data: prior to the publication and provision of results to clients:
    - Analysis of changes in final ratings and impact indicators compared with previous ones to validate the materiality of the changes;

- Validation of the compliance of output files through data completeness and accuracy tests.

These checks are carried out during every data production and update cycle.

Frequency of checks

The timing of the checks is intrinsically linked to rating updates. Data sources and production estimators are subject to priority checks tailored to their level of criticality.

Correction process in the event of a problem

If an anomaly or inconsistency is detected at any stage, an analytical review to identify the source of the discrepancy (source data error, transmission anomaly or need for recalibration) is carried out. The correction is made before the data is resubmitted to the validation chain.

When a quality issue, an asymmetry or missing data is detected, the following process is initiated:

- Data estimation: in the event of missing or incorrect data, the methodology may provide estimates for such data. If no estimate is available, the analyst must decide whether to remove the rated entity from the rating scope

- Responses to checks: where a check returns an error, a manual verification is carried out to address it. This verification may require changes to the internal process (code, methodology, etc.) or modifications to the processed data (correction, estimation, etc.), but never to the source data, unless that source data is produced by C4F's internal teams.

5. Measures taken to address the limitations of data sources

In order to address the incompleteness, absence or poor comparability of greenhouse gas emissions data reported directly by the entities assessed, the approach employs a systematic physical reconstruction method. In the absence of usable raw data, emissions are calculated using a proprietary database of emission factors based predominantly on physical quantities, or, failing that, monetary values. These proprietary emission factors are broken down to a fine level of granularity (by operational process, by region, etc.). The recalculated data fills reporting gaps by applying estimation rules that are comparable across entities. This remediation approach thus overcomes the inconsistencies in individual reporting and ensures perfect comparability between entities, guaranteeing a rigorously equivalent level of information and analytical rigour across the entire scope of the assessment.

C. Relations with rated entities or issuers of rated instruments

The ratings dispersed by Carbon4 Finance are based on a user-pays model and rely on data published by the rated entities in their reference documents, in order to ensure the independence and comparability of the rating.

The production and validation process does not involve any direct interaction with the rated entity prior to the issuance of the rating.

In accordance with Regulation (EU) 2024/3005, rated entities are notified at least two working days before the publication of their first rating, in accordance with the Procedure for the notification of rated entities and the exercise of the right of scrutiny. They then have the opportunity to request information regarding the sectoral classification used, the data sources used, the data processing processes, other relevant data, and the use of sectoral estimates and averages.

If necessary, they may submit a substantiated concern or a complaint in accordance with the procedures laid down for this purpose, accompanying the request with the necessary supporting documents.

Where Carbon4 Finance has a commercial relationship with a financial market participant who is also a rated entity or an issuer of a rated instrument, strict separation rules are applied in accordance with the Policy on the Separation of Analytical and Commercial Activities. The teams directly involved in the rating process are entirely independent of the commercial teams responsible for client relations, in order to eliminate any risk of a conflict of interest, or any attempt to influence, in any way whatsoever, the rating methodologies or rating outcomes.

Carbon4 Finance does not carry out any on-site inspections or visits for the purpose of assessing a rated entity.

D. Unsolicited Ratings

Carbon4 Finance displays a clearly visible statement at the top of all analysis pages on the client-accessible platform, stating: "*This rating is an unsolicited rating. Neither the rated entity nor any related third party was informed prior to the initiation of the rating process that it would be subject to this rating, nor did they participate in the rating process. Furthermore, Carbon4 Finance did not have access to management or any relevant internal documents of the rated entity or a related third party, and this evaluation has been conducted solely using publicly available information.*"

E. Use of artificial intelligence in the data collection and rating process

As part of the continuous improvement of operational processes, projects aimed at assessing the contribution of artificial intelligence to optimising certain stages of data collection are underway.

As such, AI models are being evaluated to collect certain standard data points. Data quality and relevance of the data collected are ensured through a rigorous manual verification of each data point extracted during the first stage of analysis.

Machine learning is not used in the algorithms or rating processes themselves which rely on rule-based algorithms.

Due to this strict human oversight and the highly controlled scope of these tests, the current limitations of artificial intelligence have no impact on the quality, rigour and reliability of the ratings.

F. Key information regarding a rated entity

For its CIA products, Carbon4 Finance uses exclusively public data sourced from the reference documents of the rated entities, as well as internal data derived in accordance with its methodologies.

Carbon4 Finance takes into account material information concerning a rated entity from the moment it has been included in the rated entity's annual or sustainability report, in order to ensure a minimum level of stability and reliability, as well as consistency with other elements of the reference documents.

Appendix I – Methodology review procedure

Purpose and scope

The purpose of this procedure is to define and provide a clear and traceable framework for the process of updating Carbon4 Finance's methodologies. It applies to all methodologies used to produce data leading to a rating (opinion or score), covering in particular the following risks and products:

- Transition risks
    - Carbon Impact Analytics (CIA) Bottom-up;
    - CIA Top-down;
    - CIA Sovereigns;
    - CIA Climate Bonds
- Physical climate risks:
    - Climate Risk Impact Screening (CRIS).
- Dependencies on ecosystem services:
    - Biodiversity Impact Analytics powered by the Global Biodiversity Score™ (BIA-GBS), Dependencies module

By extension, it also covers methodologies that do not result in ratings, such as BIA-GBS, Impact module.

It covers periodic updates (ensuring the models remain compliant) as well as ad hoc reviews (following a change to a critical element; see the section 'Substantial update: update of a critical/material element'). This procedure is itself reviewed annually and approved by Carbon4 Finance Strategy Committee.

Process and frequency of review

The review process is centred on the "Methodology Review Committee" (hereinafter **the** "Committee"), which meets at least once a year to examine the relevance and performance of the current models and to decide on any potential needs for methodological development (regarding existing or future models).

In exceptional circumstances, this Committee or dedicated bodies may be convened outside the regular cycle in the event of a proven significant error

impacting one of the models, or where there is an urgent need for development relating to a current or future product.

Prior to the Committee meeting, the Methodology team reviews the suitability of each of the methodologies relating to the products marketed by Carbon4 Finance, with a view to presenting the results of this assessment to the Committee. In particular, it identifies any limitations and weaknesses and proposes possible future methodological developments.

Conditions determining the need for an update

The Committee relies on several factual elements to decide whether to initiate an update or a new methodological development. These may be triggered by:

- Confirmed new client requirements that have led to the decision to develop a new product and its associated methodology;
- Duly substantiated client feedback or complaints, validated by investigations carried out;
- The observation or detection of technical or operational errors;
- A clear advance in scientific frameworks that could improve the current approach, or enable greater precision or coverage of material elements;
- The clear publication of additional relevant information, either by companies or via public databases, provided that this practice is widespread amongst a sufficient number of material companies within the scope of the product(s) concerned.

Materiality criteria

The Committee assesses the materiality of changes according to strict criteria, in order to categorise the nature of the change. The Committee is the decision-making body for any substantial updates.

Substantial update: update to a critical/material element

A methodological change is defined as material when it alters the conceptual structure of the model, its guiding principles or the overall dynamics of the ratings issued. The following are therefore classified as material:

- fundamental changes to the scientific foundation: the incorporation of major new academic findings or the overhaul of international reference frameworks that alter the model's architecture;

- structural reconfigurations of the assessment algorithm: any modification to the analysis tree, the relative weighting of the assessment pillars, the scope of impact covered (e.g. significant additions or removals of products under consideration or sub-activities) or the fundamental calculation mechanisms;

- major corrective adjustments: any revision aimed at addressing an identified methodological limitation likely to result in a significant reclassification or a general *re-ranking* of the rated items.

Any material change is subject to comprehensive documentation, prior notification to users and traceable implementation in the databases in accordance with regulatory requirements.

Non-substantial update: update of a minor/non-material element

A change is classified as non-material when it forms part of the model's ongoing operational maintenance and does not alter either its fundamental logic or the fundamentals of the relative rating hierarchy. The following are therefore classified as non-material:

- the annual maintenance of input datasets: the periodic updating of reference databases (e.g. updating physical inventory data, segment shares in the emissions value chain or informative metrics on business activity);

- the updating of third-party scenarios and reference frameworks: the incorporation of updates to experts' forward-looking scenarios or associated factor databases;

- cosmetic or precision corrections: clarifications to methodological guides or fine-tuning adjustments that have no significant impact on the final rating.

- These non-substantial updates do not require approval by the Methodology Review Committee and must be carried out on an ongoing basis under the responsibility of the Methodology division.

Process for assessing the impact on existing ratings

In order to accurately measure the consequences of methodological updates, the teams systematically carry out an impact assessment:

- Any material impacts on existing ratings are systematically reviewed prior to the final validation of the ratings and are the subject of specific comments.

- The checks are carried out in two ways:

    - a technical test (data check to verify that no information has been lost)

    - a business/methodology test (verification based on a test matrix defined by the Methodology department and implemented by the Data team).

The results of these checks are emailed from the Data division to the Methodology division and retained internally.

Update governance: committees, meetings and responsibilities

The update cycle is organised around formal bodies: the Committee and operational milestones.

The Annual Methodology Review Committee

- **Role:** To ensure the strategic direction and long-term sustainability of Carbon4 Finance's methodological framework.

- **Responsibilities:** To assess the relevance and robustness of current methodologies in order to decide whether to retain them or whether further development is required; to identify priority areas for work; to formally approve the schedule of updates for the coming year; and to officially approve the launch of any new methodology.

The organisation, role and responsibilities of the Committee are set out in the Methodology Review Committee's charter.

Milestone meetings (development cycle)

Once the project has been approved by the Annual Committee, the work is organised into 'Phases' interspersed with validation meetings adapted to the specific characteristics of each product family (CIA, BIA-GBS, CRIS):

1. **Internal assessment:** Consolidation of expertise, field testing and identification of areas for improvement, leading to an "assessment log" (Work period).

2. **Internal kick-off meeting:** Establishing the project framework. The specialist teams (Analysis or Data, Methodology) determine the priority areas for development and approve the roadmap, responsibilities and timetable

3. **Methodological changes assessment meeting:** Endorses the scope of analysis and areas for development. The committee assesses the feasibility and added value of the proposed changes compared with existing methodologies. A 'GO' status triggers technical development; a 'REWORK' status requires a review of the proposed development.

4. **Update work (R&D):** Review of indicators, impact assessment on a test sample, early warning in the event of a bottleneck.

5. **Validation meeting:** A decisive milestone determining the technical validity of the changes. The committee analyses the hierarchy of ratings and the impact

assessments to ensure there is no systemic bias. Minutes of the meeting formalise the proposals as approved decisions ('Closed' status).

Special cases and emergency management

Technical maintenance without a methodological review

In cases where the Annual Review Committee has determined that no development is required, a simplified maintenance procedure is applied.

- **Application:** Applies exclusively to the updating of minor elements (see section 'Non-substantial update: updating a minor/non-material element').

- **Validation:** This technical maintenance is subject to a dedicated validation by the Methodology department (documented by written confirmation via email), enabling the integration of recent scientific data without overburdening the formal governance process.

Out-of-cycle correction ('Fast track' process)

An accelerated procedure enables the handling of urgent revisions or adjustment requirements leading to a change in a rating, without waiting for the next cycle. It comprises five key stages:

1. **Centralisation:** Each team maintains a detailed record of the centralised incident/anomaly log, incorporating the information brought to its attention. The Methodology team conducts an immediate Impact assessment to determine the extent of the bias (magnitude, scope).

2. **Feasibility assessment:** The Methodology team verifies that the correction is consistent with the methodological framework.

3. **Review:** The Analysis or Data team (depending on the products) reviews the relevant analyses.

4. **Integration:** The Analysis and/or Data team integrates the corrections into the production systems to ensure the reliability of the calculations.

5. **Fast-track approval:** Final approval by the Management Committee formalises the update, enabling the corrected deliverable to be generated immediately.

Appendix II – Policy on data updates and the revision of historical data

Frequency and cycle of data updates

The data and indicators in Carbon4 Finance products are subject to a structured, periodic process.

Annual updates

The following products are subject to a full update on an annual basis, subject to the availability of the necessary input data:

- CIA Top-down;
- CIA Sovereigns;
- CIA Climate Bonds (targeted monthly updates);
- CRIS;
- BIA-GBS.

Staggered periodic updates

The CIA Bottom-Up product is subject to a specific process, with updates organised in the form of dedicated sector-specific campaigns, carried out at intervals of up to 24 months.

Traceability

In accordance with transparency requirements, the date of the most recent update applied is systematically recorded for each item assessed within the databases delivered to clients.

Procedure for checking the accuracy and consistency of updates

To ensure the reliability and consistency of updates, Carbon4 Finance applies an internal procedure structured around three key stages.

Automated reconciliation and validation of incoming data

All new raw data is subject to consistency checks, as described in the production procedures for each product

Quality controls

In the event of a statistical anomaly or a substantial change to the input data for a rated entity identified by a rating analyst, a qualitative review may be carried out by the Analysis department to validate the change before it is reflected in the analysis. For products that do not require the involvement of a rating analyst, the input data is analysed automatically and quantitatively. Tests for consistency, completeness, timeliness and accuracy are carried out automatically by the Data department, with any discrepancies reviewed by the Methodology department.

To preserve the integrity of the source databases, no raw data is modified directly at source in the event of a proven error or inconsistency. The necessary adjustments are applied at the calculation engine level via an explicit and documented override rule. This mechanism allows the corrected value to be used in modelling whilst keeping the original data intact, thereby ensuring full and auditable traceability of the correction process.

Version traceability

All data, ratings and indicators generated and delivered to the client are systematically archived and time-stamped in information systems. For each product, a complete history of the values delivered is retained, along with details of the methodological version and the set of parameters used in their production.

This traceability guarantees clients that Carbon4 Finance is able to accurately reconstruct their past analyses on request and ensure the consistency over time of their regulatory reporting.