

# Principles and Best Practices for Book and Claim Systems in Heavy Transport



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# Principles and Best Practices for Book and Claim Systems in Heavy Transport

**Author:** the Secretariat of the Book and Claim Community and Community stakeholders

## **Book and Claim Community:**

**Welcome to this Book and Claim Community.** The transportation sector's voice is united: we need voluntary market-based measures to accelerate heavy transport decarbonization, and those measures need to be coordinated and communicated consistently to reach their full potential. Book and claim is a tool that—when robustly implemented—can help enable and accelerate transport decarbonization by connecting ambitious buyers and sellers to decarbonize their value chains, together.

This Book and Claim Community is headed by a Secretariat, co-chaired by **RMI** and **Smart Freight Centre (SFC)**, which has been charged with managing collaboration across four work areas: Reporting & Targets, Certification, Registries & Related Applications, and Capacity-building & Communication.

Visit our website—[bookandclaimcommunity.org](https://bookandclaimcommunity.org)—and join our newsletter—[bookandclaimcommunity.org/newsletter](https://bookandclaimcommunity.org/newsletter)

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# Introduction

The scale and complexity of heavy transport operations and the high price premium on low emission fuels and/or services make heavy transport decarbonization challenging. Book and claim systems are a promising value chain approach for reducing financial and infrastructural barriers while enabling decarbonization. This approach drives vital and real uptake of low-emission transportation services and solutions that would otherwise not have occurred. These systems function today to connect supply and demand for decarbonized transport and support scaling the low carbon market through bankable long-term offtake agreements for new supply.

To be effective, book and claim systems should measure and deliver GHG emissions reductions impact and facilitate scalability. Adherence to a set of foundational principles can streamline progress toward this goal.

In early 2024, the Book and Claim Community<sup>1</sup> hosted discussions with a diverse group of expert stakeholders to collaboratively develop and refine a document that captures the key principles and best practices for credible book and claim systems in heavy transport applications. The resulting document presents an aligned set of principles, best practices, and relevant resources for book and claim systems, which is informed by practical successes and challenges faced by practitioners working to decarbonize the heavy transport sector, and reflects the current state of knowledge and remaining gaps.

At this document's publication, initiatives such as the Greenhouse Gas Protocol (GHG Protocol)<sup>2</sup>, the Science Based Targets initiative (SBTi)<sup>3</sup>, the Advanced and Indirect Mitigation (AIM) Platform<sup>4</sup>, Carbon Disclosure Project (CDP), International Organization for Standardization (ISO), governmental bodies, and others have been engaged in consultative efforts to evaluate and address the role of market-based mechanisms, including book and claim solutions, both in heavy transport and across other sectors. This document and the Book and Claim Community focus only on voluntary book and claim in heavy transport. However, this document, alongside other work products from the broader Book and Claim Community, can serve as a resource to inform, reinforce, and

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<sup>1</sup> For more information, please read: [www.bookandclaimcommunity.org](http://www.bookandclaimcommunity.org)

<sup>2</sup> In 2023, GHG Protocol launched a process to update its standards, including a dedicated survey and call for proposals on the role of market-based accounting approaches and/or project accounting methods. GHG Protocol plans to provide guidance addressing the role of such methods in GHG emissions reporting and/or target-setting in an upcoming standard. <https://ghgprotocol.org/blog/market-based-and-project-accounting-approaches-where-we-are-now>

<sup>3</sup> In November 2023, the SBTi initiated a call for evidence on the effectiveness of the use of environmental attribute certificates in corporate climate targets. In April 2024, the SBTi released a statement acknowledging that the utilization of environmental attribute certificates for abatement purposes in Scope 3 emissions could serve as an additional mechanism, if supported by robust policies, standards and procedures based on scientific evidence. The SBTi plans to release first draft of rules on this by July 2024. <https://sciencebasedtargets.org/news/statement-from-the-sbti-board-of-trustees-on-use-of-environmental-attribute-certificates-including-but-not-limited-to-voluntary-carbon-markets-for-abatement-purposes-limited-to-scope-3>

<sup>4</sup> For more information, please read: <https://aimplatform.org/aim-platform-releases-guiding-principles-for-stakeholder-input>

complement these ongoing efforts. We invite broader stakeholders to engage and collaborate with the Book and Claim Community as we strive to coordinate engagement with key reporting and target-setting initiatives.

We call on heavy transport stakeholders to implement the principles and best practices outlined in this document to scale credible and effective book and claim systems that enable transport decarbonization.

## Contributing and supporting individuals and organizations

### Contributing individuals and organizations

This document represents consensus among the contributing parties, reflecting conceptual agreement on the principles and best practices outlined here. However, this consensus does not imply that all contributing parties fully implement every best practice within the document given their various roles in the value chain. It is the result of thorough discussion, synthesis, and alignment of diverse expert viewpoints, which ensures that the final recommendations are both robust and broadly supported by both industry practitioners and civil society within the heavy transport sector. Below is an alphabetical list of those who played a pivotal role in crafting this document and approved their mention below:

#### Contributing Individuals

Aaron Robinson, IAG	Judith Musau, Global Maritime
Adam Kirby, ISCC System	Forum Kathleen Wight, World Energy
Adam Klauber, World Energy LLC	LLC Laura Hutchinson, RMI
Andrea Schoen, Smart Freight Centre	Louise Dobler, NORDEN
Bianca Garvin, Global Maritime Forum	Nicole Sautter, American Express
Claire Dougherty, RMI	Global Business Travel
Dr. Andreas Muendel, DHL Group	Noelle Froehlich, DHL Group
Dr. Eleni Zampou, Kuehne+Nagel	Nora Lovell Marchant, American
Esther Sicong Li, RMI	Express Global Business Travel
Frederik Jacobsen, Mærsk Mc-Kinney	Oscar Hernandez, RMI
Møller Center for Zero Carbon	Patric Puetz, Smart Freight Centre
Shipping	Quintin Barnes, Smart Freight Centre
Gabriel von Müller, Müller-BBM Cert	Thomas Bock, ISCC System
Umweltgutacher GmbH	William Boatwright, NORDEN
Harri Tanner, Neste	

## Contributing Organizations

American Express Global Business  
Travel  
Center for Green Market Activation  
(GMA)  
Deloitte Global  
DHL Group  
International Airlines Group (IAG)  
Kuehne+Nagel

Mærsk Mc-Kinney Møller Center for  
Zero Carbon Shipping  
NORDEN  
RMI  
Roundtable on Sustainable  
Biomaterials (RSB)  
Smart Freight Centre  
World Energy LLC

## Supporting individuals and organizations

In addition to the above contributors, this document has been reviewed and supported by other key stakeholders in the heavy transport sector. These individuals and organizations, while not directly involved in the drafting process, have provided their support for the principles and best practices outlined in this document as of publication, June 28, 2024. Listed alphabetically, they include:

### Supporting Individuals

Alan McKinnon, Kuehne Logistics  
University  
Anne Shudy Palmer, Green Worldwide  
Shipping, LLC  
Antoine Vessiere, Bollere logistics  
Bertil Duinhouwer, CarbonLeap  
Cécile Bray, GEODIS  
Cynthia Cummis, Deloitte  
Daniel Tucker, Intersect Power  
David Coleman, MOV3MENT  
David Prieto, ClimeCo  
Denis Choumert, European Shippers  
Council  
Ding Ye, Lenovo  
Dmitri Krölov, Asstra Forwarding AG  
Elham Hassanzadeh, Arxax  
Eva Schyns, CarbonLeap  
George Orwell, Energy Web  
Community  
Gilles Marechal  
Ginevra Lapi, ACT Commodities B.V.  
Himanshu Sharma

Ingrid Irigoyen, Zero Emission Maritime  
Buyers Alliance (ZEMBA)  
Julien Topenot, Aggreko  
Mansift Kaur, cKinetics  
Maria Lacalle, Lune Climate  
Martijn Smeets, CargoClub  
Matteo Benvenuti, Codognotto Group  
Nancy Bsales, 4Air  
Natalia Lykova, DSV  
Neda Arifi, Evident  
Raj Kumar, DISIDE Technologies  
Private Limited  
Rob Kelly, Forum Mobility  
Rob Neale  
Ros Johnston, Sustainable Aviation  
Futures  
Sai Rohit, cKinetics  
Serkan Akman, Rotterdam Mainport  
Institute  
Shaun Morrow, Mainfreight  
Shinji Okada, Mizuho Research &  
Technologies, Ltd.  
Shivendu Gadkar, X-Press Feeders



Shutong Liu, MotionECO China  
Stephen White  
Steven Jan van Hengel, Port of  
Rotterdam

Teuta Saka, DHL  
Tim Peters, Hapag-Lloyd AG  
Zhaopeng Cheng, Shanghai Biobased

## Supporting Organizations

123Carbon  
4Air  
ACT Commodities B.V.  
AllChiefs  
Arkas Line  
Asstra  
CarbonLeap  
CHOOOSE  
ClimeCo  
DISIDE Technologies Private Limited  
DSV  
Energy Web Community  
Evident  
FincoEnergies  
Forto Logistics SE & Co. KG  
Forum Mobility

GEODIS  
Girteka Group  
Green Worldwide Shipping, LLC  
Intersect Power  
Lenovo  
LKW WALTER Internationale  
Transportorganisation AG  
Lune Climate  
Mitsui O.S.K. Lines (MOL)  
MOV3MENT  
Port of Rotterdam  
Shanghai Biobased  
shipzero GmbH  
SkyNRG  
Twelve Benefit Corporation  
X-Press Feeders

## Framework and Definitions

Book and claim is a chain of custody model that allows environmental attributes<sup>5</sup> to be decoupled from the physical products or services that would ordinarily directly carry those attributes, creating a separate certificate<sup>6</sup> that allows buyers without physical access to decarbonized transportation services or fuels to financially enable the decarbonization of heavy transport and claim its benefits.

A book and claim system refers to the market infrastructure (sustainability certification systems, registries, and accounting standards) that allows fuel or transport service providers to “book” the environmental attributes of a fuel and/or transport service they’ve

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<sup>5</sup> Environmental attributes are characteristics of energy sources and other activities that represent specific sustainability aspects of those sources and activities. These attributes may include carbon intensity, GHG emissions reductions and other sustainability characteristics.

<sup>6</sup> A certificate represents the environmental attributes (including carbon intensity, GHG emissions reductions, and other sustainability characteristics that substantiate a claim) associated with a given quantity of lower carbon fuel or transport service (e.g. metric ton of neat SAF or MJ of energy). For the purposes of this document, we will use the term “certificate,” though this is also commonly referred to as a BCU (book and claim unit), credit, or token.

generated, creating certificates, so that customers can then “claim” the emissions benefit represented by these certificates for climate disclosures.

The effective functioning of book and claim systems relies on collaboration and coordination among various stakeholders, including standard setters, registry designers and operators, fuel and transport service providers, auditors (including certification and verification bodies), buyers, and market intermediaries.

For the purposes of this document,

- A principle is a fundamental statement that should apply to all book and claim systems in heavy transportation supply chains, across all transportation modes. Every credible book and claim system or piece of infrastructure should align with the listed principles to maintain its validity and integrity.
- A best practice is a recommended action or approach that stakeholders may adopt to align with its corresponding principle. The best practices provided in this document offer a snapshot of prevailing approaches today. As markets evolve, we acknowledge that best practice approaches and methods will need to develop and adapt to align with market change.

We recognize that some technical requirements that are critical for establishing the spectrum of certificate quality across every transport use case (i.e., vintage, emissions reduction thresholds) are not covered in this document. Because these requirements are system- and mode-specific, they are outside of this document’s scope.

The order of principles in this document follows this progression:

1. Principles for establishing fundamental transportation book and claim system elements;
2. Principles for developing and operating those elements;
3. Principles for optimizing usability and credibility of those elements.

Definitions of key terms are provided in footnotes at their first occurrence, with a comprehensive glossary at the end of the document.

## **Recommendations for Practitioners**

All stakeholders, regardless of their role, are encouraged to thoroughly read and adhere to each principle outlined in this document. Every principle is accompanied by specific best practices tailored to distinct roles, reflecting the varied responsibilities and actions across different stakeholders. Below is a summary table that outlines which principles include relevant best practices tailored to each practitioner role:



<b>Practitioner Role</b>	<b>Principles with relevant best practices</b>
<b>Book and claim system designer</b>	1-11
<b>Registry operator</b>	1-6, 8-9, 11
<b>Book and claim system participants (fuel and/or transport service provider, buyer, or market intermediary)</b>	1-11
<b>Auditor<sup>7</sup> (Certification and/or Verification body)</b>	1-5, 7, 8

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<sup>7</sup> Auditor is used throughout this document to refer to a Conformity Assessment Body, which covers both Certification Bodies and Validation/Verification Bodies. Specifically, we refer to Conformity Assessment Bodies that are independent of the organization that provides the claim, have no user interests in that claim (i.e. third-party), and are accredited to certify to a particular standard.

# Establishing Fundamental System Elements

## 1. Require certification<sup>8</sup> of environmental attributes

### **Principle:**

Independent certification of environmental attributes of a physical fuel or solution's supply chain is a prerequisite for booking and claiming<sup>9</sup>, where appropriate certification schemes exist.

### **Best Practices:**

- The supply chain for low-emissions fuels and/or services should be independently certified according to broadly recognized regulated or voluntary sustainability certification schemes.<sup>10</sup> For example:
  - In aviation, the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)<sup>11</sup> and EU Renewable Energy Directive (RED)<sup>12</sup> recognize such schemes for sustainable aviation fuel (SAF)—currently the Roundtable on Sustainable Biomaterials (RSB) and the International Sustainability and Carbon Certification system (ISCC). In addition to these organizations' regulated certifications, both organizations also have comparable voluntary standards (RSB Global and ISCC PLUS).
  - In maritime shipping, the International Maritime Organization (IMO)<sup>13</sup> references CORSIA-recognized schemes when using biofuel. Additionally, EU RED acknowledges over a dozen voluntary<sup>14</sup> and national certification schemes for alternative fuels. This list is expanding to include schemes for Renewable Fuels from Non-Biological Origin (RFNBOs). The IMO is also

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<sup>8</sup> Certification is the process of evaluating something (in this document, a transportation fuel and service supply chain's environmental attributes) against a set of established criteria by an independent third-party auditor.

<sup>9</sup> Certification of environmental attributes (e.g. of the fuel or service) does not necessarily validate the legitimacy of the certificate (BCU, credit, or token, etc.) of book and claim solutions.

<sup>10</sup> Sustainability certification schemes encompass standardized frameworks or methodologies designed to evaluate and confirm the sustainability performance of products, services, or processes (referred to as environmental attributes in this document). These schemes are typically overseen by independent organizations or regulatory bodies, which accredit auditors to certify operators to their schemes.

<sup>11</sup> For more information, please read: <https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Eligible-Fuels.aspx>

<sup>12</sup> For more information, please read: [https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes\\_en](https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes_en)

<sup>13</sup> For more information, please read:

<https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/FFT%20Project/Second%20study%20-%20sustainability%20and%20verification.pdf>

<sup>14</sup> For more information, please read: [https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes\\_en](https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes_en)

developing its Guidelines on the life cycle GHG intensity of marine fuels<sup>15</sup> and developing mid-term measures that may introduce additional sustainability criteria for current and emerging standards.

- Similar regulated and voluntary schemes are in development for other modes and use cases.
- If appropriate certification schemes do not yet exist, at a minimum, an independent third-party audit of environmental attributes, at a scope agreed by a buyer and seller, should be implemented.

## 2. Use credible normative documents

### **Principle:**

Book and claim systems are consistent with at least one relevant independent standard, framework, or guideline where they exist.

### **Best Practices:**

In order of applicability—broad and multimodal to mode-specific (not exhaustive):

- Transport book and claim systems should align as much as possible with general book and claim standards such as *ISO 22095 Chain of Custody*<sup>16</sup> and the forthcoming standard on *Book and Claim*<sup>17</sup> in the same series.
- Various standards, frameworks and guidelines detail approaches for transport book and claim use cases. For example, the Smart Freight Centre's (SFC) multimodal *Voluntary Market Based Measures Framework for Logistics Emission Accounting and Reporting*<sup>18</sup> offers a consistent approach for climate disclosure of book and claim solutions for transport services.
- For SAF in aviation, frameworks have been developed to structure book and claim systems as implemented by registry operators, fuel providers and air transport providers, such as the *RSB Book and Claim Manual*<sup>19</sup> and the *ISCC Credit Transfer System*<sup>20</sup>.
- Similar mode-specific documents are being developed for maritime and road.

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<sup>15</sup> For more information, please read: <https://www.imo.org/en/OurWork/Environment/Pages/Lifecycle-GHG---carbon-intensity-guidelines.aspx>

<sup>16</sup> For more information, please read: <https://www.iso.org/standard/72532.html>

<sup>17</sup> For more information, please read: <https://www.iso.org/standard/84426.html#lifecycle>

<sup>18</sup> For more information, please read: <https://www.smartfreightcentre.org/en/projects/ongoing-projects/market-based-measures-accounting-framework/>

<sup>19</sup> For more information, please read: <https://rsb.org/wp-content/uploads/2023/04/RSB-PRO-20-001-001-RSB-Book-and-Claim-Manual-3.0.pdf>

<sup>20</sup> For more information, please read: [https://www.iscc-system.org/wp-content/uploads/2023/12/ISCC-Credit-Transfer-System\\_System-Document\\_V1.0-1.pdf](https://www.iscc-system.org/wp-content/uploads/2023/12/ISCC-Credit-Transfer-System_System-Document_V1.0-1.pdf)

### 3. Use credible registries<sup>21</sup>

**Principle:**

The issuance, transfer, and retirement of a certificate is recorded in a registry before a beneficiary makes a claim about the environmental attributes recorded in that certificate.

**Best Practices:**

- For every transaction of a certificate, the issuance, transfer, and retirement of that certificate should be managed on a credible registry that aligns with the principles listed in this document. All actors involved in the lifecycle of the certificate—from creating to claiming—should have accounts on that registry or at minimum be listed as beneficiaries on the certificate.
- Registries should validate key information before issuing certificates to give participants confidence that the certificates they receive and ultimately claim represent the correct information.
- During early development stages for new book and claim use cases that lack robust registries, basic record-keeping can suffice if essential information is maintained (for example, beneficiary information, certification information, and other environmental attributes information etc.). However, as use cases mature, accuracy, reliability and trust in recorded data will become increasingly important. Transitioning to more robust digital registry solutions—which are consistent with independent standards as assured by independent third-party auditing, are transparent (see Principle 9), and have robust governance (see Principle 7)—is essential.

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<sup>21</sup> Registry is a systematic collection of documented information or data that is organized and maintained according to specific requirements.

# Core System Functionalities

## 4. Prevent erroneous double counting<sup>22</sup>

### **Principle:**

Book and claim system operators and participants share the collective responsibility of preventing the erroneous double counting of interventions<sup>23</sup>.

### **Best Practices:**

- Registries should ensure that erroneous double issuance and erroneous double use of certificates within their platform is impossible. This functionality can be supported by digital traceability tools.
- To prevent erroneous double issuance between registries that work with the same types of certificates, registries should establish secure systems that verify the same environmental attributes of an underlying solution are only issued in one registry while ensuring data privacy and following antitrust rules.
- To prevent erroneous double claiming, registry participants should ensure that their claims match the information contained in certificates retired in their name and consult with independent third-party auditors to verify their use of certificates towards their climate disclosure.
- To prevent erroneous double use of the environmental attributes of a fuel or service, providers and/or suppliers should either have an appropriate trader certification or should undergo third-party and independent audit to verify that no double use of the environmental attributes has occurred (including between the sale of the physical good or service and the sale of the decoupled certificate).

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<sup>22</sup> Double counting in book and claim systems refers to the erroneous, duplicate or improper accounting of emission reductions, encompassing three main scenarios: double issuance (duplicate creation of certificates for the same solution), double claiming (multiple parties claiming the same certificates), and double use (repeated utilization of a single certificate by the same party for multiple purposes).

Though, noting Principle 6, multiple valid voluntary claims can be made in association with a single certificate, if claimed by actors at different points in the value chain. This parallels the scenario where multiple simultaneous claims can be made about the emissions linked to a specific product or activity (e.g. the same emissions associated with air transport are reported by a fuel provider, an aircraft operator, users of aviation services, and others, each falling into different accounting categories).

<sup>23</sup> An intervention is the action taken to produce a low carbon fuel and/or transport service that leads to the creation of a certificate. A single intervention can create both scope 1 and scope 3 certificates.

## 5. Ensure additionality<sup>24</sup>

### **Principle:**

Book and claim systems strive to implement commonly understood and accepted additionality criteria.

Book and claim system participants adhere to agreed-upon additionality criteria to ensure that certificates represent additional mitigation activities, including that the environmental attribute can be credibly used to substantiate a voluntary claim by clarifying its relation to compliance obligations.

### **Best Practices:**

- If the definition and criteria of additionality are established in a bilateral transaction, they should be included in the accompanying contractual documentation.
- Fuel and transport service providers should transparently disclose to the certificate buyer, at minimum, the regulatory programs related to the specific mitigation activity that is the basis for a certificate (incentives, obligations, and other related programs).
- Registry operators should require additionality declarations during the issuance process of certificates.
- Certificate buyers should ensure that they stipulate the need for these claims to be eligible for use for their voluntary claims, meaning that they specify additionality criteria in contracts and use a registry that checks for this additionality requirement.
- Participants should transparently disclose their additionality assessment when reporting and accounting for low carbon transportation.
- Independent and third-party auditing should be used to ensure adherence to the agreed-upon definition and criteria of additionality.

## 6. Enable multiple distinct claims for the same voluntary interventions

### **Principle:**

Multiple valid voluntary claims can exist for a single intervention in heavy transport supply chains if they are claimed by actors at different points in the value chain, mirroring

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<sup>24</sup> Additionality is a metric for evaluating whether the emissions reductions or profile associated with an intervention (e.g. certificate purchase) would have occurred absent the intervention. In particular, regulatory additionality assesses whether the activity is already required by and used towards a regulatory obligation.

accounting and reporting norms for emissions in conventional transportation supply chains.

**Best Practices:**

- Certificate purchasers should transparently report their intervention in their climate disclosures, indicating the accounting category for which it was purchased.
- In accordance with the GHG Protocol Corporate Standard<sup>25</sup>, while only one company can claim scope 1 emissions, multiple companies can claim the same scope 3 emissions provided they occur at different points in the value chain<sup>26</sup>. This allows for a comprehensive assessment of emissions across the supply chain, reflecting the contributions of various entities involved in the production, distribution, logistics, and use of low emission products or services.
- Certificates are simplest to track when scope 1 and scope 3 attributes remain linked. When separated, the issuance, transfer, and application of scope 1 and scope 3 attributes from the same intervention should be consistently tracked to maintain system integrity.
- A certificate for each scope 1 and at least one scope 3 category for each intervention should have a clearly identified claimant to maintain alignment with standards such as those set by the SBTi, ensuring both scopes are appropriately correlated.

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<sup>25</sup> At the publication of this document, although book and claim solutions are not officially recognized by GHG Protocol outside of Scope 2, the concept of how to account for and report book and claim solutions are in accordance with GHG Protocol standards.

<sup>26</sup> One company can have both scope 1 and scope 3 emissions linked to the same activity.



# Optimizing Credibility and Function

## 7. Implement robust governance

### ***Principle:***

Decision-making processes within book and claim systems, including rule definition and implementation, incorporate processes to uphold the collective interests of system participants.

### ***Best Practices:***

- Book and claim systems—and specifically normative documents and registries—should establish robust governance structures encompassing distinct bodies responsible for defining rules, formalizing stakeholder input, and overseeing decision-making processes.
- Book and claim system designers should actively avoid conflict of interest in decision-making processes.
- Book and claim systems should require third-party and independent auditors to ensure adherence to independent standards, frameworks or guidelines, where they exist, to minimize the risk of self-declaration and to enhance transparency and integrity.
- Book and claim systems should incorporate dispute resolution processes<sup>27</sup> to address issues such as fraud, errors, appeals, and complaints. These processes should be transparent and tailored to be effective for each participant's role. While these details may not be publicly disclosed in every case, such as in bilateral contracts, all relevant participants should have access to dispute resolution information.

## 8. Ensure data accuracy

### ***Principle:***

All actors in a book and claim system are responsible for ensuring accurate reporting and use of data in their respective step of the chain of custody in order to reflect the certified characteristics of the fuel and/or the service in a book and claim system.

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<sup>27</sup> For more information, please read: <https://www.isealalliance.org/defining-credible-practice/iseal-code-good-practice>

**Best Practices:**

- Independent third-party auditors should verify the environmental characteristics of the fuel and/or the service provided in adherence to a certification scheme.
- Book and claim system participants should collaboratively agree on a consistent method for accounting transport activity and GHG emissions reductions and ensure uniform data granularity across different modes of transport, if applicable.
- Registry operators are responsible for maintaining data consistency, accuracy, and comparability across certificates, including values, calculations, and statements.
- Book and claim system participants should ensure that their disclosure of data aligns with the certified characteristics of the fuel and/or services.
- Book and claim system participants should prioritize the use of actual values where appropriate, utilizing default values for a baseline comparator value and when superior data is unavailable, impractical, or biased. Moreover, participants should avoid selectively choosing data or values that may appear more favorable or advantageous, especially if actual data is available. Participants should also be transparent about the use of emission factors and, where possible, avoid sourcing values from multiple different emission factor sets to maintain consistency.

## 9. Make system requirements and functionalities transparent

**Principle:**

Book and claim systems are transparent about their requirements and functionalities to participants and the public, including the methodologies, standards, or references used to calculate or reflect the attributes, the aggregated metadata of issued certificates or similar, and the requirements to participate in a system.

**Best practices:**

- Standards that detail book and claim system requirements should be publicly accessible, including any audit requirements.
- Registry functionalities and requirements should be visible in publicly accessible documentation.
- Calculation methodologies should be publicly accessible.
- Any material changes to the public documentation should go through a consultation process that ensures all relevant actors are included.

## 10. Accurately procure and transparently report certificates

### ***Principle:***

Participants of book and claim systems procure certificates that correspond to their specific transport mode to mirror their organization's transportation activity, and transparently and accurately use certificates in the context of complete and verified GHG emissions disclosures.

### ***Best Practices:***

- In the near term when clean fuels and technologies are not widely available, companies can confidently invest in technologies that match their transport mode but not necessarily their specific transport activity category or use case. But companies should increasingly prioritize purchases that more closely match their transport activity category or use case.
- Participants should be transparent about the role of certificates in their emissions disclosure.

## 11. Collaborate to mitigate risks

### ***Principle:***

Book and claim systems promote alignment with international, national, and/or industry-wide standards and principles to facilitate data comparability and promote the exchange of information to mitigate risks (i.e., double counting) and to facilitate reporting and accountability.

### ***Best Practices:***

- Registries should have built-in controls to ensure data integrity and accessibility. These controls may be guided by internationally recognized standards, regulations on data protection, and the industry's common practices, while allowing for flexibility to adapt to evolving needs and emerging best practices.
- Registries should collaborate to mitigate the risk of double issuance of the same certificates in any circumstance.

# Glossary

## **Additionality**

A metric for evaluating whether the emissions reductions or profile associated with an intervention (e.g. certificate purchase) would have occurred absent the intervention. In particular, regulatory additionality assesses whether the activity is already required by and used towards a regulatory obligation.

## **Auditor**

Auditor is used throughout this document to refer to a Conformity Assessment Body, which covers both Certification Bodies and Validation/Verification Bodies. Specifically, we refer to Conformity Assessment Bodies that are independent of the organization that provides the claim, have no user interests in that claim (i.e. third-party), and are accredited to certify to a particular standard.

## **Best Practice**

A recommended action or approach that stakeholders may adopt to align with its corresponding principle. The best practices provided in this document offer a snapshot of prevailing approaches today. New best practice approaches and methods will emerge and develop over time, and book and claim systems will adapt and evolve to meet those needs.

## **Book and Claim**

A chain of custody model that allows environmental attributes to be decoupled from physical products or services that would ordinarily directly carry those attributes, creating a separate certificate that allows buyers without physical access to decarbonized transportation services or fuels to financially enable the decarbonization of heavy transport and claim its benefits.

## **Book and Claim System**

The market infrastructure (sustainability certification systems, registries, and accounting standards) that allows fuel or transport service providers to “book” the environmental attributes of a transportation product and/or service they’ve generated, creating certificates, so that customers can then “claim” the emissions benefit represented by these certificates for climate disclosures.

## **Certificate**

A certificate represents the environmental attributes (including carbon intensity, GHG emissions reductions, and other sustainability characteristics that substantiate a claim) associated with a given quantity of low carbon fuel or transport service (e.g. metric ton of neat SAF or MJ of energy). For the purposes of this document, we will use the term “certificate,” though this is also commonly referred to as a BCU (book and claim unit), credit, or token.

<b>Certification</b>	Certification is the process of evaluating something (in this document, a supply chain's sustainability) against a set of established criteria by an independent accredited auditor.
<b>Double Counting</b>	Double counting in book and claim systems refers to the erroneous, duplicate or improper accounting of emission reductions, encompassing three main scenarios: double issuance (duplicate creation of certificates for the same solution), double claiming (multiple parties claiming the same certificates), double use (repeated utilization of a single certificate by the same party for multiple purposes).
<b>Environmental Attributes</b>	Characteristics of energy sources and other activities that represent specific sustainability aspects of those sources and activities. These attributes may include carbon intensity, GHG emissions reductions and other sustainability characteristics.
<b>Intervention</b>	An action taken to produce a low carbon fuel and/or transport service that leads to the creation of a certificate. A single intervention creates both scope 1 and scope 3 certificates.
<b>Principle</b>	A fundamental statement that should apply to all book and claim systems in heavy transportation supply chains, across all transportation modes. Every credible book and claim system or piece of infrastructure should align with the listed principles to maintain its validity and integrity.
<b>Registry</b>	A systematic collection of documented information or data that is organized and maintained according to specific requirements.
<b>Sustainability Certification Schemes</b>	Sustainability certification schemes encompass standardized frameworks or methodologies designed to evaluate and confirm the sustainability performance of products, services, or processes (referred to as environmental attributes in this document). These schemes are typically overseen by independent organizations or regulatory bodies, which accredit auditors to certify operators to their schemes.

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