



# Explanatory Document and FAQs

For consultation of the C-Capsule Code version 1.1



# 1 Introduction

## 1.1 Purpose of this document

This document delineates the evolutionary advancements made between version 1.0 of the C-Capsule Code for CDR and version 1.1 of the Code, underscoring our dedication to refining the standards and practices for Carbon Dioxide Removal (CDR) certification. The transition to version 1.1 encapsulates a series of enhancements aimed at bolstering the integrity, accuracy, and accessibility of the Carbon Removal Units (CRUs) issuance, transfer, and redemption processes. These amendments reflect our ongoing commitment to align with the latest in climate science, stakeholder feedback, and the evolving landscape of carbon removal technologies. Through this version update, we aim to provide a more robust framework that not only enhances operational efficiency but also ensures that our certification processes remain at the forefront of environmental integrity and market relevance.

## 1.2 What is the International Attribute Tracking Standard?

The International Attribute Tracking Standard (Standard) is a set of requirements that ensures the quality of attribute tracking systems such as guarantees of origin (GOs) and renewable energy certificates (RECs) are of the highest quality and meet the most rigorous expectations of stakeholders, market parties, and end-users. The Standard defines how various organisations can coordinate and facilitate attribute tracking systems, as well as their associated markets, and be Accredited or proven as compliant with the regulations set forth in the Standard.

The goal of the Standard is to provide clear and concise rules for organisations that facilitate markets for Product Certificates, as well as for the users of those associated markets.

While the Standard does not define the Products adherent to the Standard, it ensures that all Products adhere to the same high-quality requirements. It is our experience that Products like electricity, non-fossil gas, hydrogen, CDR and others that can benefit from an attribute tracking Infrastructure will benefit from the common rules provided in the Standard.

## 1.3 What is a Product Code?

A Product Code is a description of roles and set of rules approved and Accredited by the I-TRACK Foundation as being adherent to the Standard, ensuring reliable implementation of a Product Certificate. The Product Code can be owned by a government, private enterprise, or non-profit organisation.

## 1.4 What is the C-Capsule Code for CDR?

The C-Capsule Code for CDR is a Product Code for durable Carbon Dioxide Removal. Its purpose is to describe the implementation of the Standard in delivering an ex-post, fact-based Product

Certificate for CDR, known as a Carbon Removal Unit (CRU). It sets out the definitions, processes, and procedures that form the specification of CRUs.

CDR represents a suite of technologies and processes that directly remove greenhouse gas (GHG) emissions from the atmosphere and durably store those emissions in a geological, terrestrial, or ocean reservoir, or in products. It includes existing and potential anthropogenic enhancement of biological or geochemical sinks and direct air capture and storage but excludes natural CO<sub>2</sub> uptake not directly caused by human activities.

Projects that can demonstrate durable sequestration over a 100-year time horizon will be eligible for a CRU. This makes most developers of engineered or hybrid CDR solutions such as Direct Air Capture (DAC), Biomass Carbon Removal and Storage (BiCRS) and Bioenergy Carbon Capture and Storage (BECCS), eligible for C-Capsule subject to methodology development. Simple forestry and other biological sinks are not currently eligible for C-Capsule.

## 1.5 What is CDR?

CDR represents a suite of technologies and processes that directly remove greenhouse gas (GHG) emissions from the atmosphere and durably store those emissions in a geological, terrestrial, or ocean reservoir, or in products. It includes existing and potential anthropogenic enhancement of biological or geochemical sinks and direct air capture and storage but excludes natural CO<sub>2</sub> uptake not directly caused by human activities. Projects that can demonstrate durable sequestration over a 100-year time horizon will be eligible for the C-Capsule Product Certificate. This makes most developers of engineered or hybrid CDR solutions such as Direct Air Capture (DAC), Bioenergy Carbon Capture and Storage (BECCS) and biochar, eligible for C-Capsule. Simple forestry and other biological sinks are not currently eligible for C-Capsule, but it is intended that methodologies for these approaches will be developed when Monitoring, Reporting and Verification (MRV) and confidence of durability improves.

## 1.6 What is the timeline for release and consultation?

The consultation on version 1.1 of the C-Capsule Code will be open for 30 days, from June 14–July 13, 2024.

# 2 C-Capsule Code for CDR version 1.1

## 2.1 What's changed?

To ensure the integrity of the Code and to keep up with industry best practices in a continually evolving carbon removal market, we have conducted a review of the Code and made changes to improve the quality of our product and align with standard setting bodies across the carbon removal space.

Several critical changes have been made to enhance the framework's clarity and effectiveness. Definitions of key terms like additionality and leakage have been elaborated to offer clearer application guidance within the certification process, alongside introducing a definition for stakeholders to acknowledge the diverse roles and interests in CDR activities. The expanded responsibilities for Verification Authorities indicate a deeper involvement in ensuring the accuracy and integrity of CDR certifications. The renaming to "Carbon Removal Units (CRUs)" and the codification of the usage of unique identifiers for CRUs reflect a commitment to aligning with industry standards and improving traceability. New provisions for registry coordination and transparency aim to strengthen provisions against double counting and promote system credibility. Additionally, enhanced conflict of interest protocols, the establishment of an Advisory Council and the role of Redemption Authorities, and the formalisation of a methodology review process underpin a more robust governance structure. The inclusion of sections on sustainable development, compliance with international frameworks, and periodic code review highlight a forward-looking approach to aligning CDR activities with broader environmental goals and ensuring ongoing relevance.

## 2.2 Definition Clarifications and Extensions

In version 1.1 of the Code, significant clarifications and extensions have been made to key definitions, ensuring greater precision and alignment with current carbon accounting practises.

**Additionality:** The definition of Additionality has been expanded to more explicitly detail the criteria for determining whether CDR activities go beyond business-as-usual scenarios. This includes a more comprehensive assessment of regulatory, financial, and common practice barriers, enhancing the rigor with which projects must demonstrate their contribution to additional carbon removal.

**Leakage:** The concept of Leakage has been refined to include a broader range of indirect effects that may offset the benefits of CDR activities. The updated definition encompasses potential economic, social, and environmental impacts that extend beyond the immediate vicinity of the project, requiring a more thorough evaluation of net carbon removal outcomes.

**Stakeholder:** A new definition for Stakeholder has been introduced, recognising the diverse group of individuals and entities with a vested interest in CDR projects. This definition aims to ensure a more inclusive approach to stakeholder engagement, acknowledging the importance of local communities, investors, regulatory bodies, and others in the successful implementation of CDR activities.

## 2.3 Enhanced Role and Responsibilities of Verification Authorities

The update from version 1.0 to 1.1 of the Code significantly expands the roles and responsibilities of Verification Authorities. Previously, their primary function was to verify facility characteristics and

CDR activity against an approved methodology. Version 1.1 extends these responsibilities to include the validation of facilities, verification of data for CRU issuance, auditing activities within the Registry, and investigations of EOCDs. Additionally, a more rigorous approval process involving an application and endorsements from the Code Manager, Advisory Council, and the I-TRACK Foundation is now required. These changes aim to enhance the integrity and accuracy of the verification process, ensuring more robust oversight and accountability in CDR certification.

## **2.5 Advisory Council Establishment and Roles**

The introduction of the Advisory Council (AC) in version 1.1 of the Code marks a significant enhancement in governance and expertise input into the Code's development and verification process. This council, comprised of carbon removal and market experts, is tasked with independently evaluating updates to the Code and ensuring that decisions reflect a diverse range of expertise and impartiality. The establishment of the AC aims to integrate broader perspectives, including governmental views, into the decision-making process, thereby upholding the Code's integrity. The requirement for AC endorsement on major decisions, including the approval of new Verification Authorities and methodologies, underscores a commitment to objective deliberation, transparency, and maintaining a dynamic and balanced membership. This change was made to bolster the credibility and inclusiveness of the Code's governance structures, ensuring that the Code remains relevant and effectively represents the interests and expertise of the broader carbon removal community.

## **2.4 Enhancing Integrity through Conflict of Interest Policies**

The addition of a comprehensive section on conflicts of interest in version 1.1 of the Code underscores a proactive approach to safeguarding integrity and independence across all market actors engaged in registry services. This update reflects a commitment to ensuring that all parties, including the Foundation, Advisory Council, Code Manager, and others, operate without misaligned interests that could compromise the ecosystem's integrity. The requirement for all involved entities to attest to the absence of conflicts of interest was introduced to enhance transparency, trust, and ethical governance within the C-Capsule framework.

## **2.5 Streamlining Methodology Adoption and Engagement**

Version 1.1 of the Code introduces a structured methodology adoption process, emphasising the need for methodologies to align with C-Capsule principles and demonstrate public and scientific acceptance. Usage of an ad-hoc Scientific Board, comprised of experts for evaluating proposed methodologies, and the provision for public comment, signal a commitment to inclusivity, scientific rigor, and transparency. This approach ensures methodologies are vetted thoroughly, reflecting the latest in CDR technology and research, and fostering broader community engagement and trust in the certification process. C-Capsule also codifies its commitment to adopt methodologies with marked market acceptance and no longer draft or develop its own methodologies.

## **2.6 Incorporating Sustainable Development Goals**

The update to include sustainable development impacts reflects C-Capsule's alignment with broader environmental and social objectives, specifically the UN Sustainable Development Goals (SDGs). Registrants can now link CRUs to SDG contributions, enhancing the value and impact of their carbon removal efforts. This addition underscores the importance of evidence-based claims regarding sustainability impacts, verified by an approved Labelling Authority, promoting accountability and transparency in addressing global challenges.

## **2.7 Contingency Plan for Buffer Pools**

Version 1.1 of the Code introduces a contingency plan for the management of the insurance buffer pool, designating Evident, a co-founder of C-Capsule, or a similarly qualified organisation chosen by Evident, as the successor manager. This ensures continuity and security of the pool, reflecting prudent risk management and safeguarding stakeholder interests in case C-Capsule dissolves or can no longer manage the pool.

## **2.8 Global Compliance and Integrity Enhancements**

Updates have been made across various sections introduce more stringent measures for CRUs' global compliance with developing regulatory and voluntary standards, notably with the UN Paris Agreement and the International Civil Aviation Organization's Carbon Offsetting and Reduction Scheme for International Aviation (CORSA). These changes aim to enhance the credibility and international acceptance of CRUs by ensuring they contribute to genuine carbon reduction efforts without undermining national and international climate commitments. The rationale behind these modifications is to align with global standards, prevent misreporting or misuse of carbon credits, and facilitate their integration into broader climate action mechanisms, thereby bolstering the integrity and impact of carbon removal and offsetting initiatives.

## **2.9 Ensuring Continuous Improvement and Alignment with Best Practices**

The C-Capsule Code introduces comprehensive procedures for periodic reviews of the Code, methodologies, and ancillary documents. These reviews, set to occur every two years or upon change requests, aim to maintain the Code's alignment with industry best practices and the latest scientific consensus. Public consultations are mandated for any proposed changes, ensuring stakeholder engagement and transparency. The Advisory Council and the Foundation's final approval ensures changes reflect collective insight and uphold the Code's integrity. This systematic review process underscores a commitment to adaptability and continuous improvement in carbon certification practices.

## **3 Participating in Consultation**

### **3.1 Who can be involved in the consultation of C-Capsule Code version 1.1?**

Stakeholder input is an invaluable resource to ensure the robust and reliable implementation of the C-Capsule Code and methodologies. To make sure the C-Capsule Code is in line with stakeholder expectations, we invite all stakeholders to provide comments, concerns, or questions through the email address listed on the consultation page.

### **3.2 What is the consultation process for the C-Capsule Code version 1.1?**

The consultation will be conducted over 30 days. The C-Capsule Code for CDR version 1.1 will be made available through the I-TRACK Foundation website with stakeholders invited to provide commentary via email at the address listed on the consultation page.

### **3.3 What if I miss the close date of consultation and still want to provide feedback (questions, comments, or concerns)?**

Stakeholder input can be provided to the I-TRACK Foundation Secretariat at any time. Additionally, the Code and Methodology allows for change requests and complaint mechanisms to facilitate any requested changes or queries to the Code.

### **3.4 What if I have no feedback to provide?**

All feedback is welcome, even feedback that explains that you are comfortable with the current text or descriptions provided by the C-Capsule Code for CDR. Your feedback is important, so please let us know your thoughts, even if you do not have any, on the consultation form.

### **3.5 How will feedback on version 1.1 of the Code be processed?**

At the end of the consultation, we will collect the feedback and prepare a report. This report will be made available to the I-TRACK Foundation Board with suggested amendments or changes due to the consultation. Following the input of the board a public report will be made related to the consultation of the C-Capsule Code version 1.1.

### **3.6 Who will process the feedback?**

The I-TRACK Foundation Secretariat will process the feedback. The I-TRACK Foundation Board will eventually evaluate all the comments and associated recommendations for change to the Code Manager for the C-Capsule Code.