

# An Introduction

## Values, Governance, and Heritage



## What is C-Capsule?

C-Capsule is an environmental attribute certificate for Carbon Dioxide Removal (CDR) and durable reduction activities. C-Capsules act as a verifiable record for the durable sequestration of GHG (per metric ton of CO<sub>2eq</sub>) that would have otherwise been emitted to, or remain in the atmospheric cycle. C-Capsule generates additional revenue for technology developers and enables consumers to neutralise their residual emissions footprint towards meeting corporate sustainability claims (carbon neutrality, net zero, etc.).

C-Capsule has been developed by Terrametric Solutions LLC: a joint venture between [Carbon Finance Labs](#) (CFL) and [Green Certificate Company](#) (GCC).

## Our values

C-Capsule represents a seminal shift in the way carbon is transacted, displacing conventional avoidance-based certificates ('offsets') with verified CO<sub>2</sub> removal and durable reduction certificates. To help consumers navigate an overcrowded market, our values demonstrate our aim to restore trust in the carbon market and ensure compatibility with net zero targets:

- **Science-based:** science-based targets require science-based evidence. All C-Capsules are uniquely attributable, verified historical facts relating to the durable sequestration of GHG that would have otherwise been emitted to, or remain in the atmospheric cycle.
- **Impact-based:** universal methodologies can be problematic when evidencing complex or unique processes. We set a quality threshold for CDR developers to become eligible, increasing the opportunity to participate in the market and allowing use of robust methodologies for every solution.
- **Clear Governance:** the C-Capsule framework provides clear separation between service providers and an independent governance body to oversee integrity and avoid conflicts of interest.

## How does it all work?

C-Capsule brings the measurable facts approach that is well established in the renewable energy sector, but novel to carbon markets. Every net tonne of CO<sub>2</sub> captured and sequestered in a stable form is a tonne removed, or prevented from entering the atmospheric cycle. It is recognised by the issue of a C-Capsule to the capturing facility owner (Registrant). C-Capsules can be sold to consumers (Participants) who can then claim the CO<sub>2</sub> removed to mitigate their emissions footprint as part of their sustainability accounting. A C-Capsule is considered used when it is redeemed and carries a unique serial number to guarantee no double counting or double claim.

The issuance, transfer and redemption of certificates will take place on the [Evident Registry](#). Their well proven Registry acts as a database for records of the full lifecycle of ownership and use of C-Capsules. The clear and uninterrupted chain of possession of a C-Capsule from the CDR event to the mitigation claim made by an end-user is fundamental. Evident's immutable data model provides the secure storage and management of environmental attributes to ensure a trusted operation of a Registry Service.

## How to participate?

Technology developers wishing to be issued C-Capsules are required to develop a methodology adherent to the *C-Capsule Methodology Protocol*. This document (*available on request*) outlines the quality threshold for developers to register their facilities on the Registry. All methodologies are subject to independent accreditation by the International REC Standard Foundation (see *Governance*). Methodologies will be assessed on their adherence to our high-quality issuing criteria:

- **Measurable:** C-Capsules represent carbon removal or durable reduction activity which can be precisely measured. Projects adhere to Methodologies with identifiable measurement points where the volume of carbon capture can be accurately determined through robust and reliable metering equipment.
- **Durable:** C-Capsules demonstrate the durable sequestration of CO<sub>2</sub> that has been purposefully removed, or prevented from entering the atmospheric cycle for long-term sequestration. Every methodology reflects a certain probability of durability set against a 100-year time horizon.
- **Verifiable:** C-Capsules are independently verified at the point of issuance to guarantee measurable sequestration and no double counting. The Facilities themselves are also audited prior to issuance to verify characteristics in adherence with the associated methodology.
- **No-net harm:** C-Capsules are not issued at the expense of harmful social and environmental trade-offs. Every methodology adheres to robust, publicly documented environmental and social safeguards, ensuring no-net harm to the surrounding community and/or ecosystem by a C-Capsule registered Facility.

Entities wishing to trade and redeem C-Capsules can create accounts on the Registry, allowing market space for intermediaries to deliver portfolio management to their carbon market clients. As an account holder on the Registry, a market intermediary can manage client accounts in a secure and confidential manner. Only aggregated data is publicly reported. Individual client publication can be permitted by the account holder.

## Governance

The C-Capsule Code (description of roles and set of rules) will seek the Accreditation to the International Attribute Tracking Standard to ensure international best-practice for managing attribute tracking systems. The Standard is owned by the [International REC Standard Foundation](#), a not-for-profit organisation based in the Netherlands. The Foundation owns the International Attribute Tracking Standard which defines how organisations can coordinate and facilitate attribute tracking systems. Accreditation to the Standard ensures that the affiliated tracking of products (in C-Capsule's case, carbon removal) are of the highest quality and meet the most rigorous of expectations of stakeholders, market entities and end-users. The Foundation acts as an independent body to oversee the integrity of the market and help align the C-Capsule Code with industry best-practice.

## Heritage

C-Capsule's team developed the first renewable energy certificate trading mechanism in Europe during the 1990s, eventually evolving into the Guarantee of Origin (GO). The team later designed and implemented the highly successful I-REC (International Renewable Energy Certificate), which currently serves over 40 countries. I-REC has become the established system for evidence to support originations claims by consumer in reporting their Scope 2 and Scope 3 emissions. It is internationally recognised by NGOs and consumer organisations to provide secure and reliable electricity origination information across the chain of custody.