



VCM Knowledge Hub Series

SUOMI ADVISORY GROUP

Carbon Registries.

Acceptance Status of Over 30 Major
Carbon Offset Registries by ICROA,
ICVCM, and CORSIA

Last update: October 2025

What are Carbon Registries?

Carbon registries are centralized platforms that track, manage, and verify carbon credits within the voluntary carbon market (VCM) and compliance markets. They ensure transparency, credibility, and accountability by recording the issuance, transfer, and retirement of carbon credits, preventing double-counting and ensuring environmental integrity. Registries maintain detailed records of project data, verification reports, and credit ownership, adhering to standards set by accreditation bodies like the International Carbon Reduction and Offset Alliance (ICROA) or the International Civil Aviation Organization's Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

Registries serve as the backbone of carbon markets by providing a transparent system for stakeholders—project developers, buyers, and regulators—to access verified carbon credits. They use standardized methodologies to quantify greenhouse gas (GHG) reductions or removals, ensuring credits represent real, additional, and permanent emissions reductions.

Key Functions

Issuance

Certifying and registering carbon credits based on verified project outcomes.

Tracking

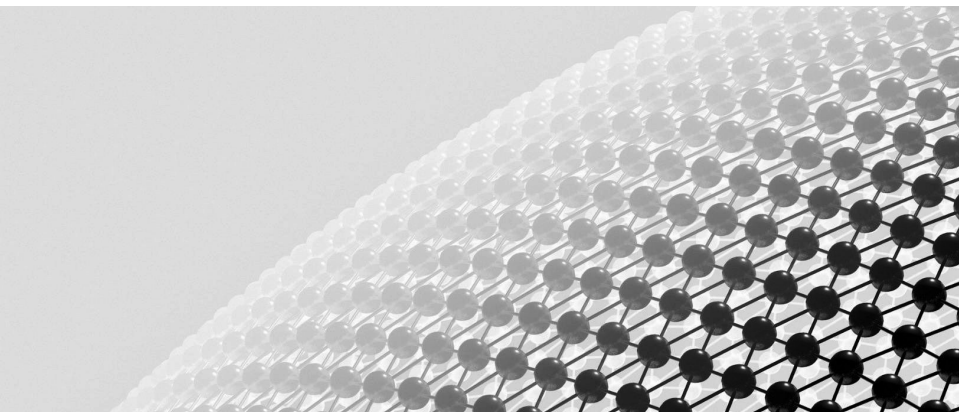
Maintaining a ledger of credit ownership, transfers, and retirements.

Verification

Ensuring compliance with methodologies and standards through third-party audits.

Transparency

Providing public access to project data and credit status to build market trust.



Registry vs. Program Authority, Offset Program, and Standard

Understanding the distinctions between a registry, program authority, offset program, and standard is essential for navigating the carbon market ecosystem. While many times these terms are used interchangeably within the industry, it is important to note that these terms represent distinct roles and functions within the VCM and compliance markets.

Registry

A registry is a digital platform that tracks, issues, transfers, and retires carbon credits, ensuring transparency and preventing double-counting. For example, the Verra Registry tracks Verified Carbon Units (VCUs). Registries implement the operational infrastructure for credit management. Unlike program authorities, registries focus solely on tracking and do not develop methodologies or standards.

Offset Program

An offset program—sometimes called GHG program—is a specific framework or set of methodologies managed by a program authority to generate and verify carbon credits. For example, the Verified Carbon Standard (VCS) is an offset program under Verra, offering GHG quantification methodologies for project developers. Offset programs define project eligibility and credit issuance criteria, distinct from the registry's tracking role.

Program Authority

A program authority is an organization that develops and manages offset programs, including methodologies, standards, and oversight of project validation. For example, Verra is a program authority that oversees the Verified Carbon Standard (VCS) program, while also operating its registry. Program authorities set rules and approve projects, distinguishing them from registries, which execute tracking functions.

Standards

A standard is a set of rules, principles, or methodologies that guide the development, validation, and verification of carbon projects. For example, CSA Group develops ISO 14064 standards, which are used by registries like the CSA CleanProjects Registry for Verified Emission Reductions or Removals (VERRs). Standards are broader than offset programs, providing universal guidelines adopted by multiple programs and registries.

Why are Registries Important?

Carbon registries are critical to the VCM's integrity and growth, enabling trust among stakeholders and facilitating market scalability. They address key challenges in carbon markets, such as double-counting, lack of transparency, and inconsistent quality, which can undermine buyer confidence. By standardizing credit issuance and tracking, registries ensure that credits meet high-integrity criteria, aligning with global climate objectives.

Market Confidence

Registries like Verra and Gold Standard provide rigorous methodologies, boosting buyer trust. In 2024, registries tracked over 1 billion carbon credits globally, with 70% in the VCM (CDR.fyi, 2024).

Scalability

Standardized systems allow registries to handle diverse project types, from biochar to reforestation, supporting market growth. The VCM is projected to reach USD 100 billion by 2030 (BloombergNEF, 2025).

Regulatory Alignment

Registries align with emerging regulations, such as the EU's Carbon Removal Certification Framework (CRCF), ensuring credits are credible for compliance and voluntary markets.

Carbon Registry Types

Carbon registries vary by scope, focus, and market served. Below are the primary types and key examples, with differences highlighted.



Types of Registries

Voluntary Market Registries

Focus on VCM credits for corporate and individual buyers. Examples: Verra (VCS), Gold Standard, Global Carbon Council, Puro.earth.

Compliance Market Registries

Support government-regulated markets, such as cap-and-trade systems. Examples: Clean Development Mechanism (CDM), British Columbia Offset Program.

Hybrid Registries

Serve both voluntary and compliance markets. Examples: American Carbon Registry (ACR), Climate Action Reserve (CAR).

Specialized Registries

Focus on specific project types, such as urban forestry or carbon removal. Examples: City Forest Credits, Riverse.

Differences Between Registries

Scope

VCS and ACR cover diverse project types (e.g., biochar, REDD+), while Isometric, Puro.earth and Riverse focus on carbon removals like biochar. Gold Standard emphasizes co-benefits like sustainable development.

Geographic Focus

CAR focuses on North America, while CSI and Riverse target Europe. VCS and ACR operate globally.

Methodologies

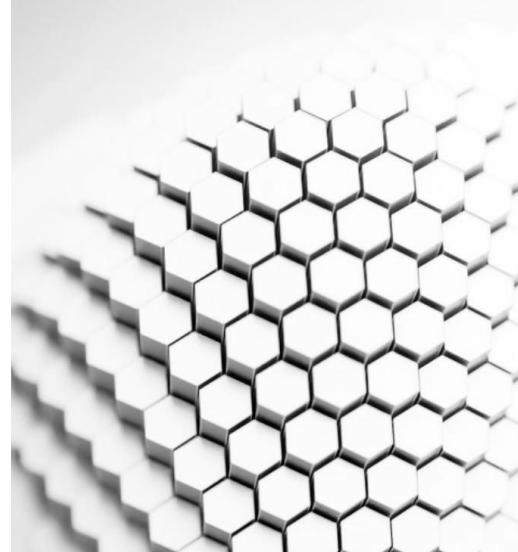
Biochar methodologies are available in ACR, CAR, VCS, Puro.earth, Riverse, and CSI, but vary in rigor and focus (e.g., Puro.earth requires life cycle assessments for net negativity).

Market Recognition

ICROA-endorsed registries (e.g., VCS, ACR, CAR) and CORSIA-eligible registries (e.g., VCS, ACR) have broader market acceptance than newer registries like Riverse.

Accreditation Bodies

Accreditation bodies establish standards and guidelines that carbon registries must follow to ensure credit quality and market integrity.



Integrity Council for the Voluntary Carbon Market (ICVCM)

The ICVCM's has developed the Core Carbon Principles (CCPs), the most widely accepted set of benchmarks for high-integrity carbon credits in the VCM.

International Carbon Reduction and Offset Alliance (ICROA)

ICROA endorses registries for adhering to its Code of Best Practice, ensuring robust methodologies and third-party verification.

Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

Managed by the International Civil Aviation Organization (ICAO), CORSIA approves registries for aviation sector offsets.

Scientific and Standard Bodies



Greenhouse Gas Protocol (GHG Protocol)

The GHG Protocol, developed by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD), provides frameworks for corporate and project-level GHG accounting, which are used by Registries for emissions quantification.

International Organization for Standardization (ISO)

ISO 14064 and ISO 14065 provide standards for GHG accounting, verification, and validation. Registries align with ISO 14064-2 for project-level emissions reductions and ISO 14065 for validator accreditation.

Science Based Targets initiative (SBTi)

SBTi validates corporate net-zero targets aligned with the Paris Agreement. While not directly accrediting registries, SBTi influences demand for high-quality credits from registries, which support SBTi-aligned corporate commitments.

Recognition Status from Accreditation Bodies

All offset programs and registries must attain a recognized level of accreditation to issue carbon credits widely accepted in the market. In recent years, ICROA, ICVCM, and CORSIA have emerged as the leading accreditation bodies for ensuring credibility and integrity in the VCM.

No.	GHG Program	Issued Carbon Units	ICROA Endorsed	CORSIA Eligible Emission Units	iVCM Approved*
1	Verified Carbon Standard (VCS) - Verra	Verified Carbon Units (VCUs)	●	●	●
2	Gold Standard for the Global Goals (GS4GG)	Voluntary Emission Reduction (VER)	●	●	●
3	American Carbon Registry (ACR)	Emission Reduction Tonnes (ERTs)	●	●	●
4	Climate Action Reserve (CAR)	Climate Reserve Tonnes (CRTs)	●	●	●
5	ART - Architecture for REDD+ Transactions	TREES Credits	●	●	●
6	Isometric	BICS	●	●	●
7	Global Carbon Council (GCC)	Approved Carbon Credits (ACCs)	●	●	○
8	Clean Development Mechanism (CDM) (replaced by PACM)	Certified Emission Reductions (CERs)	●	●	✗
9	Social Carbon	Social Carbon Credits (SCCs)	●	●	○
10	Puro Standard (Puro.earth)	CO2 Removal Certificate (CORCs)	●	✗	○
11	Cercarbono	Carboncer	●	✗	✗
12	Plan Vivo	Plan Vivo Certificates (PVCs)	●	✗	✗
13	International Carbon Registry (ICR)	International Carbon Credits (ICCs)	●	○	✗
14	Rainbow (formerly Riverse)	Riverse Carbon Credits (RCCs)	●	✗	✗
15	BioCarbon Standard (BCR)	BioCarbon Credits (BCRs)	●	✗	✗
16	City Forest Credits	City Forest Credits (CFCs)	●	✗	✗
17	Australian Emissions Reduction Fund (ERF)	Australian Carbon Credit Units (ACCUs)	●	✗	✗
18	British Columbia Offset Program	B.C. Offsets (BCOs)	●	✗	✗
19	ORMEX	Verified Agricultural V-ACORs	●	✗	✗
20	UK Woodland Carbon Code	Woodland Carbon Units (WCUs)	●	✗	✗
21	Forest Carbon Partnership Facility (FCPF)	N/A	✗	●	✗
22	BioCarbon Fund for Sustainable Forest Landscapes (ISFL)		✗	●	✗
23	China GHG Voluntary Emission Reduction Program		✗	●	✗
24	Carbon Standards International (CSI)	C-Sink Credits	●	○	○
25	Ecosystem Restoration Standard (ERS)	PRUs	✗	✗	✗
26	BCarbon	BCarbon Credits	✗	✗	✗
27	CarbonPath	Tokens	✗	✗	✗
28	ClimatePal	N/A	✗	✗	✗
29	CSA CleanProjects Registry	Certified Emission Reductions (CERs)	✗	✗	✗
30	Japanese Credit Scheme	J-Credits	✗	✗	✗
31	UK Peatland Code	Peatland Carbon Units (PCUs)	✗	✗	✗

Last update: October 28 2025

Status: ● Achieved ○ Conditional / In Progress ✗ Unavailable

*iVCM approvals are at program- and category-levels; table reflects program-level unless specified. Data sourced from official announcements by ICROA, ICVCM, and ICAO.

Registry Categorization



No.	GHG Program	Removals Avoidance	Geographic Scope	Sectoral Scope
1	Verified Carbon Standard (VCS) - Verra	Both	Global	Energy, transport, waste, AFOLU, agriculture, industrial gases
2	Gold Standard for the Global Goals (GS4GG)	Both	Global	Renewable energy, agriculture, waste, forestry, community services
3	American Carbon Registry (ACR)	Both	Global	AFOLU, energy, waste, methane recovery, carbon capture
4	Climate Action Reserve (CAR)	Both	U.S./Canada focus	Forestry, livestock, landfill, methane, organic waste, etc
5	ART - Architecture for REDD+ Transactions	Both	Global	Forestry/REDD+
6	Isometric	Removals	Global	Engineered removals
7	Global Carbon Council (GCC)	Both	Global	Renewable energy, methane avoidance, AFOLU
8	Clean Development Mechanism (CDM) (replaced by PACM)	Both	Global	Energy, waste, agriculture, industrial gases, forestry
9	Social Carbon	Both	Global	Energy efficiency, fuel-switching, hydro
10	Puro Standard (Puro.earth)	Removals	Global	Engineered removals
11	Cercarbono	Both.	Global (LatAm focus)	AFOLU, renewable energy
12	Plan Vivo	Both	Global (dev. countries focus)	AFOLU
13	International Carbon Registry (ICR)	Both	Global	Energy, CDR technologies
14	Rainbow (formerly Riverse)	Both	Global	Biochar, sustainable materials
15	BioCarbon Standard (BCR)	Both	Global (South America focus)	AFOLU, energy, waste, transportation
16	City Forest Credits	Removals	North America	Urban forestry
17	Australian Emissions Reduction Fund (ERF)	Both	Australia	Agriculture, energy, waste, vegetation
18	British Columbia Offset Program	Both	BC, Canada	Forestry
19	ORMEX	Removals	Global	Regenerative agriculture/AFOLU
20	UK Woodland Carbon Code	Removals	UK	Woodland creation/forestry
21	Forest Carbon Partnership Facility (FCPF)	Both	Global (developing countries)	Forestry/REDD+
22	BioCarbon Fund for Sustainable Forest Landscapes (ISFL)	Both	Specific countries	Land use, forestry, agriculture
23	China GHG Voluntary Emission Reduction Program	Both	China	Energy, waste, agriculture, forestry
24	Carbon Standards International (CSI)	Removals	Global	Forestry, ecosystems
25	Ecosystem Restoration Standard (ERS)	Removals	Global (U.S. focus)	Soil/agriculture
26	BCarbon	Avoidance	Global	Shipping/transport
27	CarbonPath	Both	Global	Various
28	ClimatePal	Both	Global	Various (energy, waste)
29	CSA CleanProjects Registry	Both	Japan	Energy, forest, agriculture, waste
30	Japanese Credit Scheme	Both	UK	Peatlands
31	UK Peatland Code	Removals	Global	Biochar, agriculture, materials

Mapping the Future for Carbon Registries

The future of carbon registries is shaped by technological, regulatory, and market trends.

Digital Transformation

Blockchain and IoT-based digital MRV systems will enhance transparency and reduce costs. By 2028, 50% of registries are expected to adopt digital ledgers (McKinsey, 2025).

Global Alignment

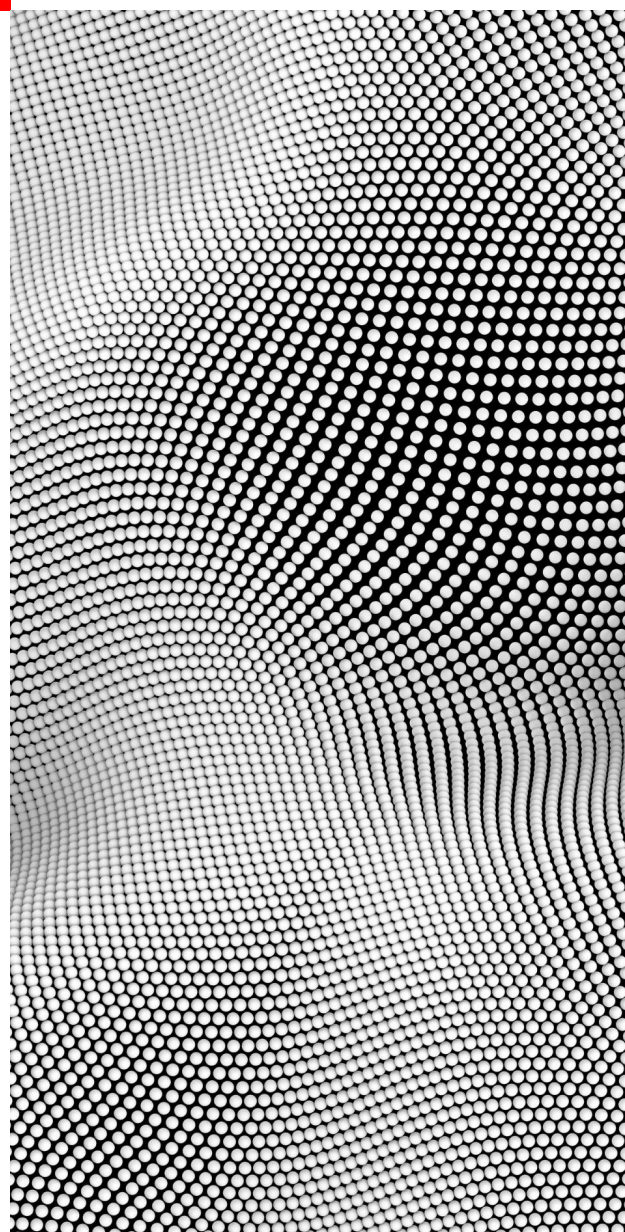
Registries will align with Article 6.4's centralized mechanism, supporting ITMO tracking and cross-border credit transfers.

Methodology Expansion

Registries like VCS, Gold Standard, and CAR are updating their methodologies to address permanence, additionality and conservativeness concerns, align to Article 6 criteria and other bodies such as ICVCM's CCPs, SBTi and more.

EU CRCF Integration

The EU's Union-wide registry, set for 2028, will standardize methodologies for removals like biochar, influencing global registry practices.



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The **VCM Knowledge Hub Series**, produced by Suomi Advisory Group, is a collection of technical papers designed to provide in-depth insights into key aspects of the voluntary carbon market (VCM). Targeted at industry experts, corporate sustainability leaders, and policymakers, the series aims to establish thought leadership by delivering authoritative, data-driven analyses on topics such as high-integrity credits, carbon registries, and digital MRVs, among others. The purpose is to educate stakeholders and foster trust in high-integrity carbon markets by showcasing expertise in navigating complex VCM opportunities, ultimately driving sustainable and profitable carbon projects aligned with global climate goals.

Contact us today to explore how we can drive your success in the global carbon economy.

Reach Out

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Disclaimer: The information and data provided in this document is for illustrative purposes only and is based on information available from offset standards and accreditation bodies as of March 2025. It is not exhaustive and is subject to change. The data is not intended to represent definitive or current registry performance, credit issuance, or operational outcomes. Actual registry capabilities and methodologies depend on specific project conditions and verification processes. Logos and trademarks depicted herein are the property of their respective owners and are utilized solely for illustrative and educational purposes, without implying any endorsement, affiliation, or sponsorship by those entities. Suomi Advisory Group disclaims any liability for actions taken based on this sample data. For accurate and project-specific information, consult with qualified professionals and accredited verifiers.