# Overview of the commodity certificate landscape

November 2026



# Scope of the report

**Purpose:** Map and analyse the current landscape of commodity certificates from definitions to available guidance and standards.

**Intended outcome:** A mapping of current terms and their definitions, landscaping of available guidance on commodity certificates and analysis of existing gaps. The results may be used in future work on investments in climate solutions.

## Problem

- Climate solutions are critical to global climate ambition and targets
- The scale of current markets is lacking
- There is a need to stimulate the investment

→ Market instruments

- MIs are not included in global standards
- No consensus on their efficiency and purpose
- Businesses are unsure about appropriate action

→ Risk of delay for climate action

## Theory of change

1. More money needs to flow towards some system transformations
2. Corporates could provide that money
3. Being allowed to use market instruments to meet GHG reduction targets would provide the necessary incentive for corporates to spend money on system transformation

→ MIs are a temporary measure to ensure the climate solutions reach the desired scale

→ Once the scale is achieved, they become embedded in the value chain

# Key terminology



# Terminology overview

*Different organisations use different terms and concepts to describe core concepts related to market instruments and commodity certificates. Below are presented different "families" of terms used in relation to commodity certificates.*

## Traceability

- Physical traceability
- Impact traceability

## Chain of custody models

- Identity preserved
- Segregation
- Controlled blending
- Mass balance
- Book & Claim

## Association test

- Physical association
- Close association
- Activity pool / Supply shed
- Sectoral association

## Mitigation

Tools

Market-making instruments (MMI)
Market-based instruments (MBI)
Market instruments (MIs)

Contractual instruments

- Commodity certificates
- Carbon credits
- Mitigation-related contractual agreements
- Other MIs

Environmental attribute certificates (EAC)*

* Legacy term; phased out from SBTi and the GHGP

EXPONENTIAL ROADMAP Initiative

# Standards, certifications and initiatives





















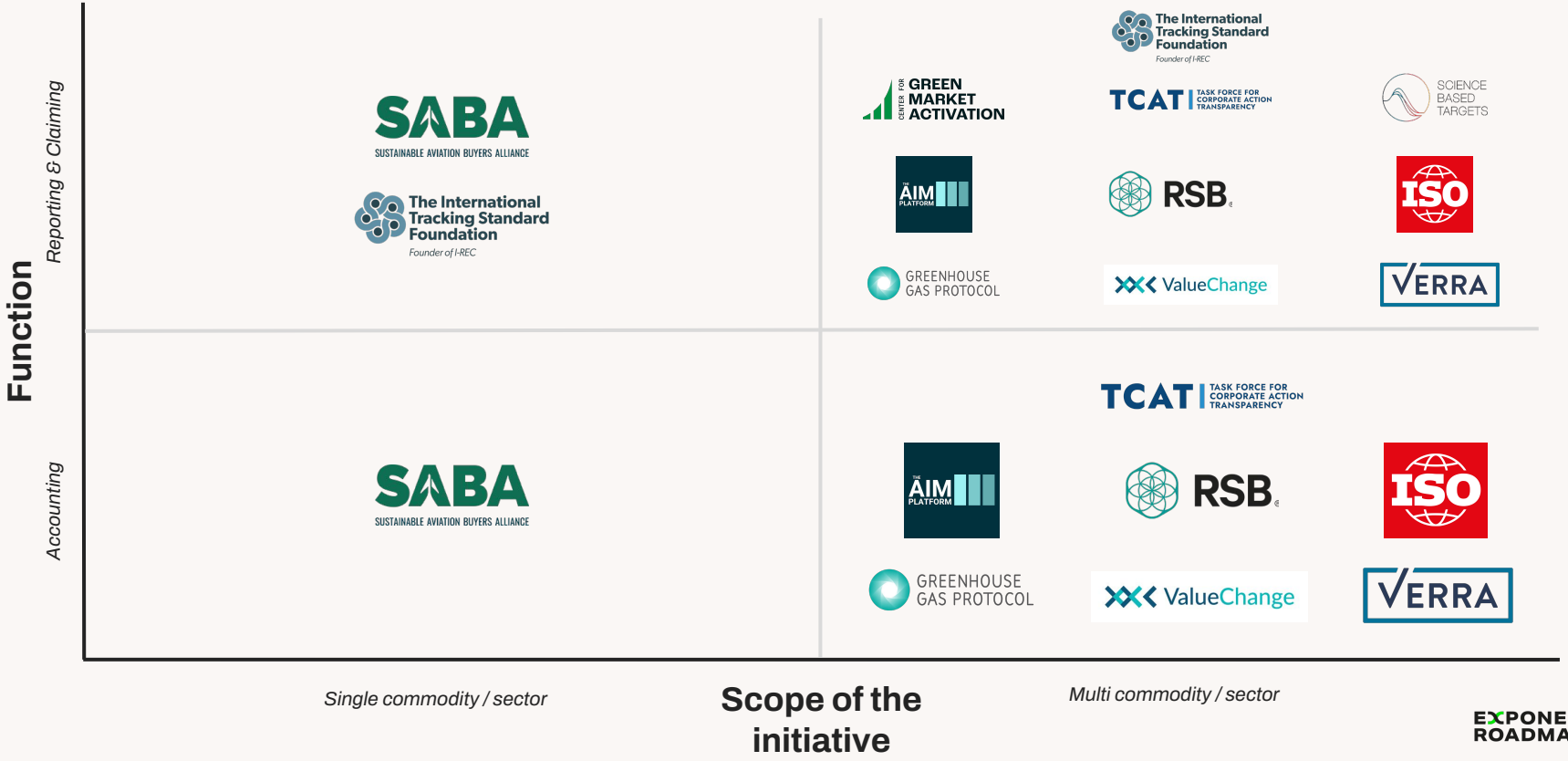









# Regulatory landscape




EXPONENTIAL ROADMAP Initiative

# Current landscape summary

SCIENCE BASED TARGETS

**CNZS v2.0 (June 2026)**

→ The standard allows the use of MIs to set and demonstrate progress towards targets on the activity pool and sector levels

→ Separate reporting of MI impacts from physical and Scope 2 inventory

→ MIs and actions must meet minimum integrity criteria to be counted as eligible

→ Scope 2 MIs apply only to investments in generation contracts which also must meet a set of requirements

→ Ongoing Emission Responsibility program rewards corporates for covering emissions beyond validated target requirements.

GREENHOUSE GAS PROTOCOL

→ Separate AMI workstream

→ Updated quality criteria for contractual instruments to include:
  → Hourly matching
  → Deliverability

→ Multi-statement reporting structure:
  → Separation of inventory into four components: physical, market-based, impact, and non-ghg indicator inventory

→ AMI white paper published:
  → Terms & definitions
  → Accounting & reporting principles

## Complementary initiatives

*General guidance:*

THE AIM PLATFORM

TCAT TASK FORCE FOR CORPORATE ACTION TRANSPARENCY

*Sector-specific guidance:*

SABA SUSTAINABLE AVIATION BUYERS ALLIANCE

ValueChange

*Traceability:*

RSB

ISO

The International Tracking Standard Foundation
Founder of I-REC

*To look out for:*

VERRA

CENTER FOR GREEN MARKET ACTIVATION

# Emission intensity as a certificate attribute

There are different requirements for the inclusion of emission intensity across different commodities. They vary based on sector and the regulatory maturity. Below is a summary for the three biggest groups.

1. **Energy certificates**

Within the EU system and globally, renewable energy certificates contents are regulated by local legislations and *do not include emission intensity values*. Within EU it is mandated by the EU RED II/III frameworks.

2. **SAF certificates**

Within global legislation and voluntary standards, SAF certificates are *required to contain the emission intensity* of the particular SAF batch as well as % comparison to the industry benchmark. This is done for compliance purposes in order to demonstrate alignment with regulations and established minimum thresholds for eligibility.

3. **Others**

For the remaining commodities, the regulation is underdeveloped. The general approach that the issuing organisations adopt is to follow the SAF framework – include the emission intensity values as well as current market comparison. For each commodity, the industry average is defined on case-by-case basis or, if applicable, within EU CBAM and ETS systems.

# Other attributes commonly included in certificates

In addition to emission intensity, MIs contain other attributes. Below is a list of commonly included attributes, irrespective of the commodity type:

- Issuing organisation
- Production location of a commodity
- Production timeframe of the commodity (start date - end date)
- Feedstock (if material commodity or fuel)
- Energy type (if energy)
- Chain-of-custody model
- Registry
- Retirement and expiry date

The exact combination of attributes depends on the certificate type as well as regulation that the specific commodity is subject to.

# Commodity-specific guidance

SAF, sustainable shipping services, green concrete and cement, green steel



# SAF landscape

## SAF

### Feedstock certification

- ISCC International Sustainability & Carbon Certification
- RSB
- ASTM International – Standards Worldwide

### Eligibility

- ICAO CORSIA - CERT
- SABA Sustainable Aviation Buyers Alliance
- European Commission EU RED

### Registry system

- SAFc Registry
- RSB
- ISCC International Sustainability & Carbon Certification

### Buyer alliance

- SABA Sustainable Aviation Buyers Alliance
- IATA
- Clean Skies for Tomorrow

### Legislation & standards

European Commission
ReFuel EU Aviation
EU RED

CORSIA

### Sustainability

→ leads to 60-70% per tonne emission reductions compared to conventional fuels
→ can be incorporated into circular flows and lead to waste reduction
→ *Caveat*: supply constraints and potential to divert supply to SAF instead of other systems

### Scale

***Current:*** 0.3% of the global fuel demand in 2024

***Future:*** could reach 8 million tonnes by 2030; mandated to be around 6% of global supply

***Price:*** on average 2,400-2,700 USD/t with premiums of 2,200 USD/t

# Sustainable shipping landscape

## Sustainable shipping

### Feedstock certification

RSB**

ISCC** International Sustainability & Carbon Certification

** Focus on fuel system

### Eligibility

IMO International Maritime Organization

Sea Cargo Charter

Poseidon Principles

European Commission**

FuelEU Maritime

** Focus on fuel system

### Registry system

Katalist

H2C

*

Global Maritime Forum*

Smart Freight Centre*

RSB**

ISCC** International Sustainability & Carbon Certification

* Provides only book-and-claim framework
** Focus on fuel system

### Buyer alliance

ZEMBA

### Legislation & standards

European Commission
FuelEU Maritime
EU MRV Maritime
EU ETS

IMO International Maritime Organization

### Sustainability

→ Many decarbonisation pathways available:
- → Alternative fuels
- → Circularity
- → Efficiency improvements

→ *Caveat*: nascent industry, need standardisation support to take off

### Scale

***Current:*** 5.6% of all ships operating on sustainable fuel; 62 green corridors

***Future:*** market is expected to grow 6 times by 2032

***Price:*** on average 350-400 USD/TEU with premiums of 250 USD/TEU

# Green concrete & cement landscape

## Green concrete & cement

### Feedstock certification

GCCA

Concrete Sustainability Council

ASTM International – Standards Worldwide

### Eligibility

GCCA

Concrete Sustainability Council

### Registry system

GCCA *

Center for Green Market Activation

RMI **

* Provides a EPD tool
** Provides only book-and-claim framework

### Buyer alliance

SCOBA – Sustainable Concrete Buyers Alliance

### Legislation & standards

European Commission
EU ETS
EU IED

IEA

### Sustainability

→ Varied decarbonisation pathways which affect the complete life cycle of cement and concrete
→ High synergies with other decarbonisation approaches
→ *Caveat*: resource availability and diversion, policy and regulatory support

### Scale

***Current:*** considerably lower than regular cement & concrete; no global tracking available

***Future:*** hard to estimate; expected to increase

***Price:*** on average 65-130 USD/t with premiums of 30-50 USD/t

# Green steel landscape

## Green steel

### Feedstock certification

Responsible Steel standards & certification

LESS LOW EMISSION STEEL STANDARD

### Eligibility





Responsible Steel standards & certification

LESS LOW EMISSION STEEL STANDARD

### Registry system

worldsteel ASSOCIATION *

RMI ENERGY. TRANSFORMED. *

* Provides only guidance on chain-of-custody models

### Buyer alliance

CLIMATE GROUP STEELZERO

SUSTAINABLE STEEL BUYERS PLATFORM

First Movers Coalition

### Legislation & standards

European Commission

EU ETS

EU IED & BAT

### Sustainability

→ A long-term solution with emission reduction opportunities along the entire life cycle

→ High compatibility with other decarbonisation levers

→ *Caveat*: nascent industry, needs policy and regulatory support to take off

### Scale

***Current:*** < 100,000 tonnes produced in 2023

***Future:*** expected to increase though projections vary

***Price:*** on average 800-1,000 USD/t steel with premiums of 100-300 USD/t steel

# Commodity summary

| Commodity | Sustainability | Infrastructure maturity | Integration in standards | Market-readiness | Cost* |
|---|---|---|---|---|---|
| ***SAF*** | Medium | High | High | High | 136-3,680 USD/t$CO_2$e<br>Premium: 2-6 times |
| ***Sustainable shipping*** | Medium | Medium | Medium | Medium | 150-200 USD/t $CO_2$e<br>Premium: 150-200 USD/TEU |
| ***Green cement & concrete*** | Medium-High | Medium-Low | Medium-Low | Low | 30-60 USD/t $CO_2$e<br>Premium: 30-50 USD/t |
| ***Green Steel*** | Medium-High | Low | Low | Low | 100-300 USD/t $CO_2$e<br>Premium: 100-300 USD/t |

* Estimated based on cost of the physical commodity, not the certificate