Overview of the EAC landscape

March 2026

Scope of the report

Purpose: Map and analyse the current landscape of Environmental Attribute Certificates from definitions to guidance and standards.

Intended outcome: A mapping of current terms and their definitions, landscaping of available guidance on EACs 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-making instruments and EACs

- EACs 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

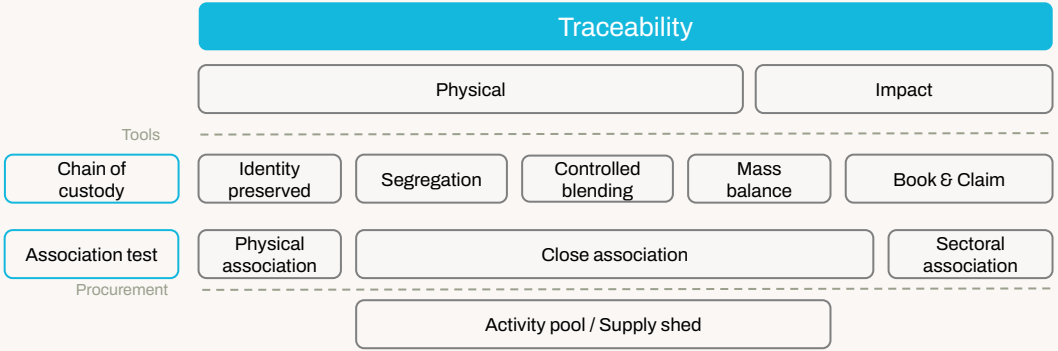
→ EACs are a temporary measure to ensure the climate solutions reach the desired scale

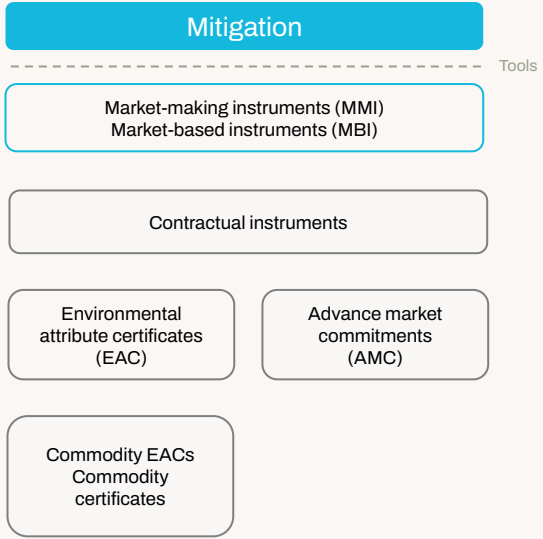
→ Once the scale is achieved, they become embedded in the value chain

Key terminology

Terminology overview

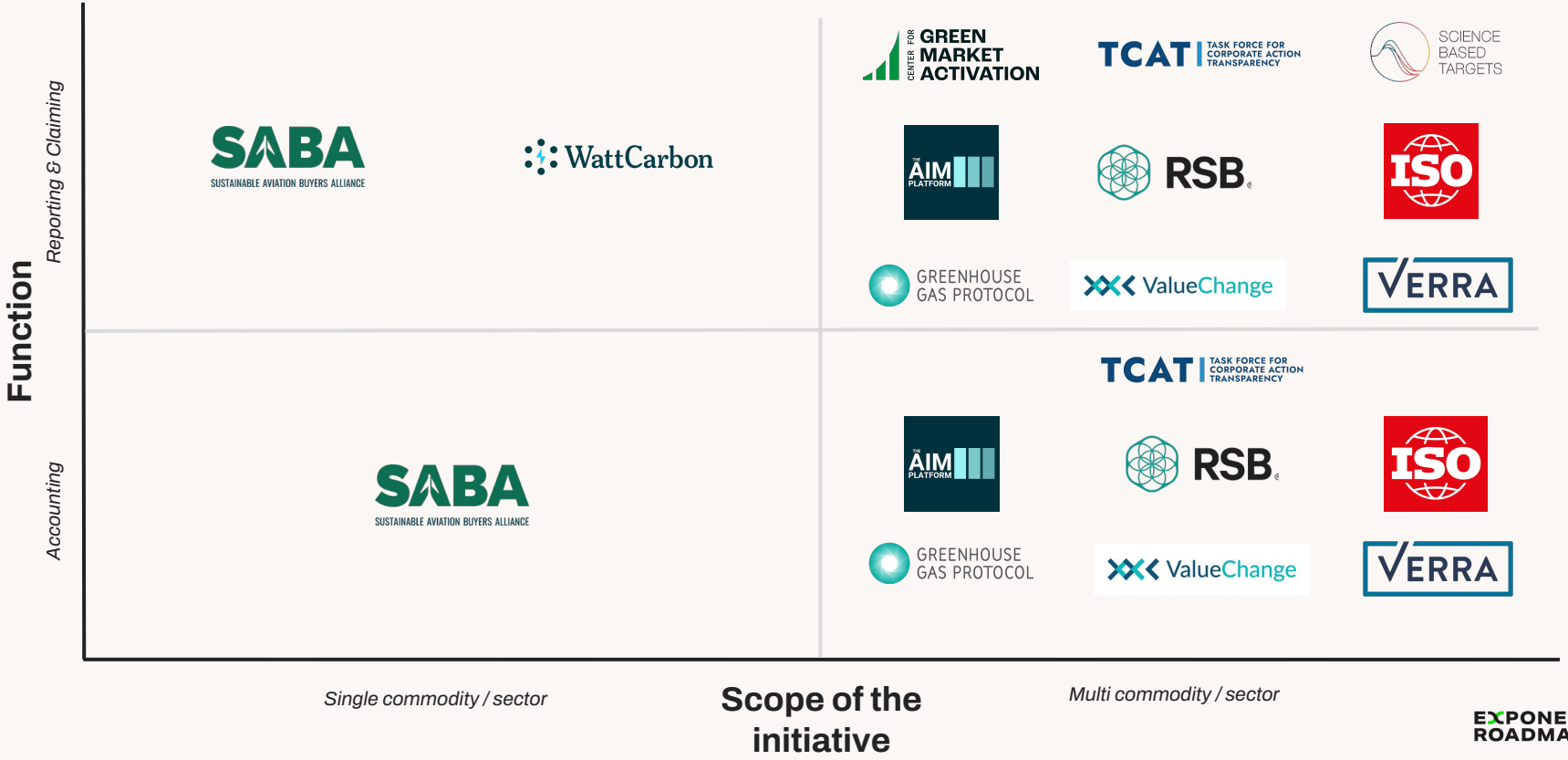
Different organisations use different terms and concepts to describe core concepts related to market-making instruments and EACs. There are two main families of terms as shown below: "Traceability" and "Mitigation". In "Mitigation", the market-making instruments are tools to achieve it, while chain of custody models and association test are tools for ensuring "Traceability" of contractual instruments.





Standards, certifications and initiatives

Current landscape



EXPONENTIAL ROADMAP Initiative

Current landscape summary

SCIENCE BASED TARGETS

Current standard:
→ No allowance for EACs or other MBIs

→ Direct actions only

Updated standard *(November 2025):*
→ EACs can be used to demonstrate progress towards targets and support scaling of low-carbon solutions

→ EACs are a temporary measure; organisations to prioritise direct action

→ Scope 2: follow current and future GHG P requirements

→ Scope 3: specific integrity and reporting requirements

GREENHOUSE GAS PROTOCOL

→ Separate AMI workstream

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

→ Updates to GHG reporting format:
  → Three possible reporting frameworks
  → Separation of inventory into four components: physical, contractual, impact, and beyond inventory

→ In February 2026, GHGP will publish a white paper with the outcomes of the AMI workstream Phase 1 for public consultation.

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

To look out for:

VERRA

CENTER FOR GREEN MARKET ACTIVATION

WattCarbon

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, EACs 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/tCO_2e Price premium: 2-6 times
Sustainable shipping	Medium	Medium	Medium	Medium	150-200 USD/t CO_2e Price premium: 150-200 USD/TEU
Green cement & concrete	Medium-High	Medium-Low	Medium-Low	Low	30-60 USD/t CO_2e Price premium: 30-50 USD/t
Green Steel	Medium-High	Low	Low	Low	100-300 USD/t CO_2e Price premium: 100-300 USD/t

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