Carbon Chain

CBAM Briefing Pack

An end-to-end guide to CBAM implementation, compliance requirements and cost exposure in 2026

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How to use this Pack

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Our new CBAM briefing pack is the only report you need; whether you're ready to comply, still checking exposure of your supply chains or forecasting future cost.

This information is intended for:

- C-suite, sustainability teams, traders, and procurement leaders
- EU importers and non-EU exporters of CBAM-covered goods
- Financial, legal, and compliance teams preparing for fiscal CBAM exposure from 2026

The Briefing pack:

- Reflects final and provisional EU legal texts as of December 2025
- Focuses on practical cost, data, and verification implications highlighting what has changed
- Is structured for sector-specific reading rather than linear consumption

Scope note: This briefing reflects CBAM rules entering force in January 2026 and the most recent implementing acts, including default values, benchmarks, verifier accreditation, and free allocation adjustment mechanics

Dissemination: You can use this Briefing Pack as an internal upskilling document between your teams, or to drive awareness about CBAM with upstream actors.

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Executive Summary

The EU Carbon Border Adjustment Mechanism (CBAM) is entering a decisive new phase. What began as a reporting obligation is now becoming a direct driver of financial exposure, procurement risk, and competitive positioning for importers of CBAM-covered goods.

From 1 January 2026, CBAM moves into its definitive phase. Embedded emissions will carry a real price, as importers are required to purchase and surrender CBAM certificates annually. This marks a fundamental shift: carbon data is no longer informational. It directly impacts margins.

Several structural changes underpin this transition. Default emission values are intentionally punitive, with mark-ups rising from 10% in 2026 to 30% by 2028. At the same time, free allocation adjustments will follow the EU ETS phase-out curve, steadily removing the implicit carbon subsidy historically embedded in EU production. Accessing lower, actual values will require ETS-grade monitoring, reporting, and third-party verification-capabilities that many global suppliers do not yet have. As accreditation rules tighten, verification capacity is expected to become a bottleneck, introducing both timing and cost risk.

For executives, the implication is clear: CBAM is no longer a narrow compliance exercise. It is a cost of goods sold issue, a supplier selection and contracting risk, and a systems and data challenge that spans global value chains. Decisions made now - on data infrastructure, supplier engagement, and verification readiness - will determine exposure in the years ahead.

Nick Ogilvie

Product Manager & CBAM Lead

CarbonChain

CBAM should be understood not as a temporary climate policy, but as a structural trade lever reshaping how carbon efficiency, data quality, and access to the EU market are priced and enforced. Installation-level carbon accounting is now a commercial necessity.

CBAM Basics

What is CBAM?

CBAM is the EU's carbon border policy, designed to ensure that carbon-intensive imports face a fair, equivalent carbon price to goods produced inside the EU under the EU Emissions Trading System (EU ETS). CBAM aims to prevent carbon leakage, protect the competitiveness of EU industries and encourage adoption of lower carbon production globally.

CBAM started with a transitional reporting period, but in 2026 it becomes fully operational: importers must calculate emissions and surrender CBAM certificates.

It has three core objectives:

1. Prevent carbon leakage: stopping production from shifting to countries with weaker climate rules.
2. Protect EU industry: levelling the carbon-cost playing field.
3. Accelerate global decarbonisation: rewarding lower-emission producers worldwide.

The UK is introducing its own CBAM from 1 January 2027. It aligns with the EU in principle but will have:

- its own in-scope goods list
- its own carbon benchmark system
- its own reporting and price-setting
- its own link to the UK ETS

UK CBAM will follow a similar structure. It is scheduled to come into effect from 2027, with details still emerging. Both regimes share the same goal: a fair and transparent carbon price on imported goods.

Link: UK Government CBAM factsheet

Don't forget to check out our Bonus Resources section at the end of the document for further reading!

Who is impacted

CBAM coverage depends on your location, the goods you import or export, the TARIC codes involved and your annual tonnage. The rules differ for importers, installations and traders. At its core, CBAM applies to goods imported into the EU that would have paid a carbon price if they had been produced inside the EU under the EU Emissions Trading System. If you are involved in supplying, selling, or importing these goods into the EU, CBAM is already relevant to you.

Importers and Declarants

EU-based buyers importing in-scope goods. Required to collect actual emissions from suppliers, calculate CBAM cost, and report via the CBAM Registry.

Installations and Producers

Non-EU producers supplying in-scope goods to the EU. Required to provide actual emissions data to customers so they can calculate exposure. From 2026 actual values are essential.

Traders and Intermediaries

Entities moving goods into or through the EU who may be responsible for CBAM declarations depending on contract structure and delivery terms.

Other Stakeholders

Consultants, auditors, procurement teams, downstream producers and logistics providers increasingly affected by customer requests for emissions data.

Why CBAM is challenging for most companies

1

Supplier data complexity

Many suppliers don't yet produce CBAM-compliant data. Templates vary, terminology is confusing, and data is often incomplete.

2

Complex methodologies

Embedded emissions must be reconstructed using verified inputs, energy sources, precursors, and additive manufacturing steps.

3

Benchmark and price volatility

EU ETS prices move weekly. Benchmarks will shift and forecasting costs is increasingly becoming a strategic procurement skill.

4

Data quality issues

EPDs ≠ CBAM. LCAs ≠ CBAM. Many producers are unsure what counts as compliant CBAM data, and confuse EPDs and LCAs with CBAM.

5

Verification pressure

Installations must undergo a strict verification process to use actual data requirements; and importers must maintain a defensible declaration audit trail

CBAM Architecture 2026

CBAM Timeline

October 2023

Transitional period came into effect mandating quarterly reporting for importers, annual for installations

July 2024

Mandatory actual data reporting requirement, penalty implication for non-compliance by declarants

Sep 2025

Omnibus package approved, with significant “simplifications” to the scope of EU CBAM, mainly for importers.

1 Jan 2026

Definitive period begins, with any CBAM goods released for free circulation into the EU subject to CBAM costs, payment arising in 2027.

Feb 2027

Earliest point at which CBAM Certificates can be purchased by importers.

Importers must hold at least 50% of 2027 Q1 certificates by end of Q1.

1 Jan 2027

Verification of embedded emissions and installation-specific benchmarks can begin.

UK CBAM comes into force.

30 September 2027

Latest date declarants (importers of CBAM goods) can submit their declarations for the 2026 period

1 Jan 2028

CBAM expansion comes into force. Downstream products are now in scope including vehicles, combined metal products and many more goods

How CBAM mirrors the EU ETS

CBAM is designed to mirror the EU Emissions Trading System by applying an equivalent carbon price to imported goods. The objective is to ensure that imported products face a carbon cost comparable to goods produced within the EU.

In simplified terms, CBAM liability is calculated as total embedded emissions associated with the imported goods minus a free allocation adjustment and minus any recognised carbon price already paid in the country of origin. Each of these components is governed by detailed technical rules set out in EU legislation and implementing acts.

Embedded emissions are calculated by adding the emissions of precursors (input materials) that an installation purchases to produce its products with the emissions that installation creates in production.

CBAM liability is calculated using embedded emissions figures minus the CBAM benchmark. These benchmarks are derived from EU ETS benchmarks and are specific to product categories, production routes, and in some cases product composition. Embedded emissions may be calculated using either actual values or default values. Actual values rely on verified installation-level data, while default values rely on assumptions based on CN codes, country of origin, and default production routes.

The free allocation adjustment (benchmark) reduces CBAM liabilities in the early years to reflect the continued allocation of free allowances to EU producers under the ETS. This adjustment declines over time as free allowances are phased out, meaning the effective carbon price faced by importers increases steadily from 2026 onwards.

Actuals or Defaults?

Actual Values

Actual values can only be used where an installation has provided you with verified installation data (in early 2027), covering the 2026 intensity of the products you have imported in 2026.

Default Values

Default values must be used where you as the importer are unable to obtain verified actual data from your supplier; or you do not have provenance information on the imported CBAM goods.

The EU has provided country-level default intensity values, and CN-code level benchmarks, per production route. Each countries' default intensity informs the production route required to be selected. If no country-level data is available, you must select "Other Countries and Territories" intensities (punitive).

Industry & Country Specific Benchmarks

Tanker
5.9gCO_{2e}/t.nm

Refinery
2.6tCO_{2e}/t

Default values

Steel – Hot Rolled Coil

Key Risks: HRC default values imply a CBAM cost range of ~€120 - €700/t at €90/tCO_2, creating an immediate and material spread between low- and high-emissions origins.

This cost differential is large enough to reshape trade flows, disadvantaging BF-BOF exporters such as Indonesia, India and China unless verified mill data is provided.

As a result, the market is likely to see repricing, contract renegotiations and accelerated sourcing shifts toward lower-CBAM or data-transparent producers rather than purely lowest-FOB suppliers.

HRC - 72083700	Default Intensity	Cost at 90 EUR/tCO2
Indonesia	9.0530	694.55
Kazakhstan	5.8190	403.49
India	4.7080	303.50
South Africa	4.5540	289.64
Other Countries and Territories	4.4540	280.64
Russia	3.7730	219.35
Uzbekistan	3.5310	197.57
China	3.5056	195.28
Algeria	3.3000	176.78
Australia	3.2670	173.81
Mexico	3.0250	152.03
Argentina	2.8490	136.19
Colombia	2.8160	133.22
Ukraine	2.7309	125.57
Türkiye	2.6703	120.11
United Kingdom	2.6620	119.36
New Zealand	2.6620	119.36
Serbia	2.6510	118.37

Notable omissions of HRC country defaults: Malaysia, UAE

Default values

Steel - Stainless

Key Risks: Stainless steel default values see Indonesia, India, China, and Türkiye - all major exporters to the EU - facing particularly punitive default exposure.

These countries currently account for a large share of EU stainless imports, meaning default-based CBAM costs are high enough to override traditional price and freight advantages and materially reshape competitiveness.

As a result, EU buyers are likely to prioritise suppliers in Japan, the US, South Korea or data-verified Asian mills, accelerating supplier concentration and increasing price volatility where verified low-emissions supply is constrained.

Stainless - 721912	Default Intensity	Cost at 90 EUR/tCO2
Indonesia	9.5370	754.00
India	7.1390	538.18
China	6.1380	448.09
Türkiye	6.0170	437.20
Thailand	5.4340	384.73
Other Countries and Territories	5.4340	384.73
Kazakhstan	5.2580	368.89
Colombia	4.2020	273.85
South Africa	4.1910	272.86
South Korea	3.9930	255.04
Australia	3.9600	252.07
Russia	3.9050	247.12
Argentina	3.7730	235.24
New Zealand	3.7180	230.29
Japan	3.6630	225.34
Algeria	3.6300	222.37
United Kingdom	3.6190	221.38
Mexico	3.5640	216.43
Ukraine	3.5530	215.44
United States	3.5420	214.45

Notable omissions of stainless defaults: Taiwan

Default values

Ferro-nickel

Key Risks: Ferro-nickel default values hit Indonesia and China (~€400/t) who are the dominant global and EU-relevant suppliers of FeNi for stainless production and see them facing materially higher default exposure than alternative origins.

Given the EU's heavy reliance on Indonesian ferro-nickel via stainless and precursor trade flows, these defaults risk embedding a significant CBAM premium into the EU stainless cost base where verified producer data is unavailable.

This is likely to increase demand for lower-default or data-verified FeNi (e.g. Canada, South Korea, UAE at ~€135/t), tightening supply options and reinforcing the strategic value of traceable, low-emissions nickel units.

FeNi - 72026	Default Intensity	Cost at 90 EUR/tCO2
China	6.765	399.13
Indonesia	6.765	399.13
Other Countries and Territories	4.415	187.63
Canada	3.828	134.80
United Arab Emirates	3.828	134.80
South Korea	3.828	134.80
Australia	3.828	134.80
Viet Nam	3.828	134.80
Colombia	3.828	134.80
Singapore	3.828	134.80
Egypt	3.828	134.80
Türkiye	3.828	134.80
Georgia	3.828	134.80
United States	3.828	134.80
India	3.828	134.80

Default values
Aluminium

Key risks: Aluminium default values see China, Mozambique (for now) and South Africa - all relevant suppliers to the EU - facing meaningfully higher default exposure than Middle Eastern, US and Canadian producers.

As the EU relies heavily on Gulf-origin aluminium (UAE, Bahrain, Saudi Arabia at ~€60/t or below), the defaults reinforce a structural competitiveness gap that favours hydro- and gas-powered smelters with lower implied emissions.

The result is likely to be greater price and sourcing volatility, as aluminium prices become increasingly sensitive not just to LME and energy dynamics but also to CBAM default exposure where verified smelter-level data is not secured.

Aluminium - 7601	Default Intensity	Cost at 90 EUR/tCO2
Mozambique	3.5178	191.73
China	3.3000	172.13
South Africa	2.5943	108.62
Russia	2.3760	88.97
Canada	2.1560	69.17
Kazakhstan	2.0570	60.26
Bahrain	2.0570	60.26
United Arab Emirates	2.0570	60.26
Egypt	2.0570	60.26
India	2.0570	60.26
United Kingdom	2.0570	60.26
Bosnia and Herzegovina	1.8700	43.43
Saudi Arabia	1.8700	43.43
Qatar	1.8700	43.43
Brazil	1.8700	43.43
Tajikistan	1.8700	43.43
United States	1.8700	43.43
Azerbaijan	1.8700	43.43
Cameroon	1.8700	43.43
Malaysia	1.8700	43.43
Australia	1.8700	43.43
Türkiye	1.8700	43.43
Other Countries and Territories	2.4230	93.20

Default values

Urea

Key risks: Urea default values sees major EU-facing suppliers such as Egypt, Algeria and Russia sitting at the lower end of the default spectrum, while higher-default origins such as China are materially less competitive.

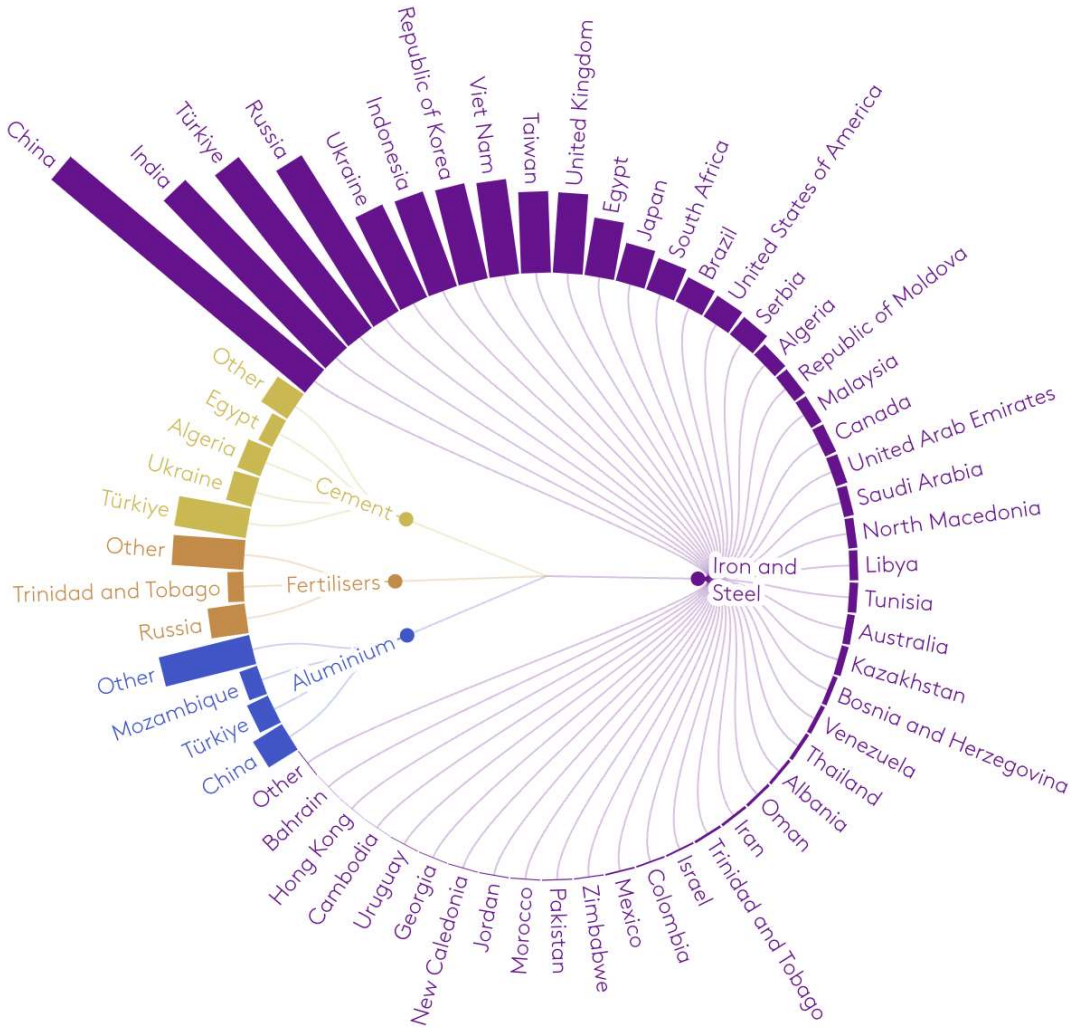
The EU's urea import mix - historically, dominated by Egypt, Russia and Algeria, and increasingly shaped by tariffs - is already shifting trade flows toward Central Asian and alternative non-Russian sources.

As a result, CBAM defaults reinforce a structural preference for North African and gas-advantaged producers, while increasing the compliance and pricing risk for new or transitional suppliers where verified emissions data is not readily available.

Urea - 31021019	Default Intensity	Cost at 90 EUR/tCO2
Honduras	4.6864	342.63
Ghana	3.7168	255.36
China	2.8785	179.91
Cambodia	2.7573	169.01
Other Countries and Territories	2.7470	168.08
Viet Nam	2.4543	141.74
South Africa	2.3836	135.37
United States	2.3129	129.01
India	2.2422	122.65
Trinidad and Tobago	1.6261	67.20
Morocco	1.5150	57.20
Russia	1.4847	54.47
Algeria	1.4241	49.02
Egypt	1.4039	47.20
United Kingdom	1.2726	35.38

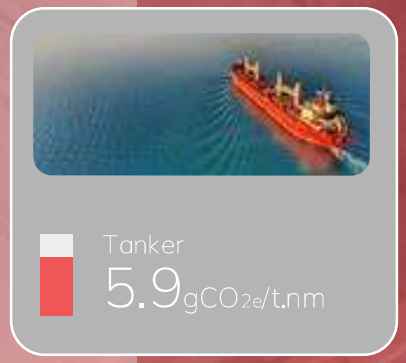
CBAM bills will stack up

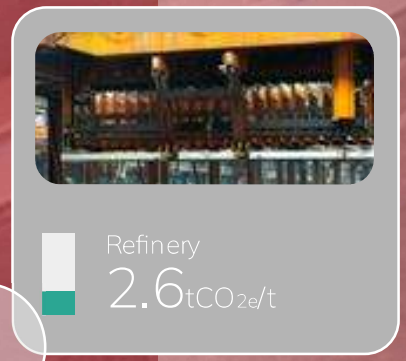
Iron and Steel faces a CBAM bill of €29 billion in 2035, with Chinese products making up €5.3 billion



Source: Fastmarkets carbon

Calculating your CBAM Cost Exposure





How much is CBAM going to cost?

As an importer of CBAM goods to the EU...

$$\left\{ \text{tCO2/t (Emissions Factor)} - \left[\text{CBAM Benchmark (tCO2/t)} \times \text{Phase-in (\% phase-in rate)} \right] \right\} \times \text{€/tCO2 (CBAM price)} - \text{tCO2/t (Carbon price paid overseas)} = \text{€/t (CBAM cost/ tonne of material)}$$

Emissions Factor = the supplier's calculated direct embodied emissions intensity of their CBAM goods.

CBAM Benchmark & Phase-in Rate = the free allocation adjustment (benchmark), which decreases at the rate of the phase-out of the free allowances under the EU ETS.

Carbon price paid overseas = the carbon price already paid overseas covering a proportion of the emissions intensity of the CBAM goods. This is deducted in order to determine the net CBAM obligation.

CBAM Certificate price = in 2026, the quarterly-average closing price of the EU ETS price.

Request Installation Specific Modelling

Access CBAM Cost Calculator

Actual or default emissions intensities?

Actual Values

Actual values can only be used where an installation has provided you with verified installation data (in early 2027), covering the 2026 intensity of the products you have imported in 2026.

Default Values

Default values must be used where you as the importer are unable to obtain verified actual data from your supplier; or you do not have provenance information on the imported CBAM goods.

The EU has provided country-level default intensity values, and CN-code level benchmarks, per production route. Each countries' default intensity informs the production route required to be selected. If no country-level data is available, you must select "Other Countries and Territories" intensities (punitive).

Choosing your benchmark

Defaults

For **all goods**, we have CN code-level “all-in” default value benchmarks (Column B). These are also at the production process-level, and, in some cases, are available for 2026-8 and 2028-30 periods.

Installation-specific

For simple goods (no input precursors) we now have benchmarks at the production-level (e.g. primary aluminium, ferroalloys, some fertiliser products). With actual data: CBAM can now be priced. Steel products are all complex goods.

Benchmark updates

The benchmarks available today are still expected to change from their release today due to the update to the EU ETS benchmarks for the next phase of the ETS. This further revision is not expected until ~March 2026.

Calculating benchmarks at the installation-level

For **simple** goods (no precursors):

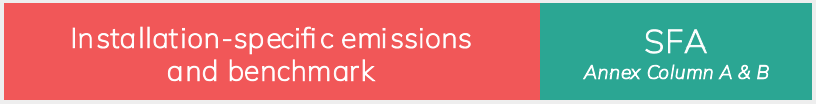
SEFA (Specific Embedded Free Allocation) = **SFA** (Specific Free Allocation (Process-level specific free allocation (Column A of Annex)))

For **complex** goods (goods with precursors):

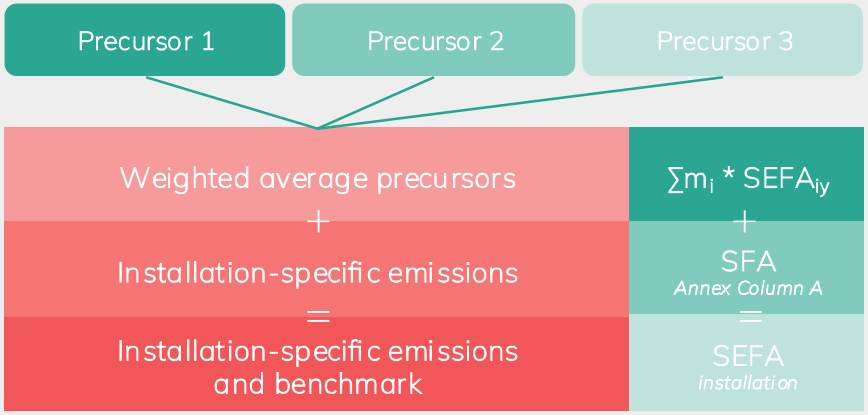
SEFA (Specific Embedded Free Allocation) = $\sum (m_i * SEFA_{iy}) + SFA$

Installation-specific benchmark = Sum of mass index-adjusted (m_i) precursor benchmarks (SEFA) + installation's process specific benchmark (SFA)

Simple goods
(e.g. Primary aluminium)

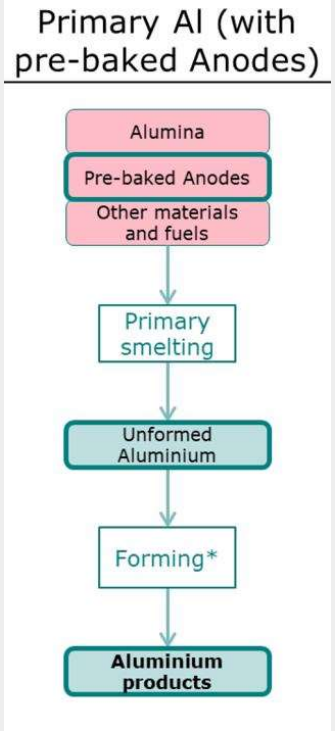


Complex goods
(e.g. Aluminium products)



Calculating emissions at the installation-level

Primary aluminium (Unwrought)

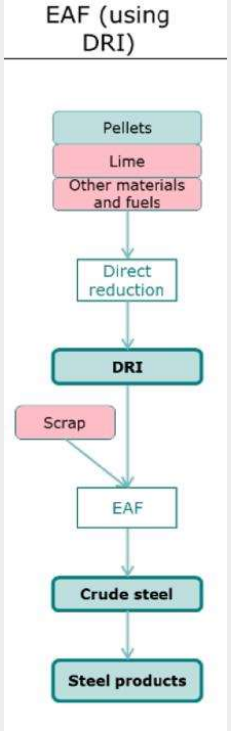


Benchmark	Emissions Intensity
Unwrought aluminium Mi: 1.00 t/t Benchmark: 1.464 tCO2/t Mass-adjusted: 1.464	Unwrought aluminium Mi: 1.00 t/t Direct Emissions Intensity: 1.90 tCO2/t Mass-adjusted: 1.90
Product-level benchmark: 1.423 * 1 = 1.423 tCO2/t	Product-level intensity: 1.90*1 = 1.90 tCO2/t

CBAM Cost per ton in Euros = [1.90 – (1.423*0.975)] * 90 = 46.13

Calculating benchmarks at the installation-level

EAF-DRI steel coil production example



Benchmark	Emissions Intensity
Iron Ore Pellets Mi: 1.55 t/t Benchmark: 0.086 tCO2/t Mass-adjusted: 0.133 tCO2/t	Iron Ore Pellets Mi: 1.55 t/t Direct Emissions Intensity: 0.17 tCO2/t Mass-adjusted: 0.26 tCO2/t
DRI Mi: 1.075 t/t Benchmark: 0.295 tCO2/t Mass-adjusted: 0.317	DRI Mi: 1.075 t/t Direct Emissions Intensity: 0.55 tCO2/t Mass-adjusted: 0.59
Flat rolling Mi: 1.03 t/t Benchmark: 0.044 Mass-adjusted: 0.045	Flat rolling Mi: 1.03 t/t Direct Emissions Intensity : 0.09 Mass-adjusted: 0.09
Product-level benchmark: 1.55*0.086 + 1.075*0.295 + 1.03*0.044 = 0.495 tCO2/t	Product-level benchmark: 1.55*0.17 + 1.075*0.55 + 1.03*0.09 = 0.95 tCO2/t

CBAM Cost per ton in Euros = [0.95 – (0.495*0.975)]*90 = 42.06

Example Scenarios for CBAM affected clients

Actual vs. Default values

Customer: EU steel importer sourcing flat steel from multiple non-EU mills

The importer initially relied on CBAM default values for all suppliers, resulting in consistently high embedded emissions and inflated projected CBAM costs. One strategic supplier agreed to provide installation-specific emissions data and undergo verification.

Result

- The importer switched that supplier from defaults to actuals
- Reported emissions dropped materially versus defaults
- CBAM cost exposure for that product line fell, despite rising EUA prices

Key takeaway

Verified actuals converted CBAM from a blunt cost penalty into a performance-based outcome.

Procurement Planning

Customer: Metals trader with volatile quarterly import volumes

The company faced uncertainty from two variables: EUA price volatility and inconsistent emissions data quality across suppliers. Using scenario modelling, they quantified CBAM exposure under both actuals and defaults and aligned this with procurement volumes.

Result

- Finance could forecast CBAM liability ranges with confidence
- The company aligned EUA hedging decisions to CBAM exposure, not just ETS assumptions
- CBAM moved from an unpriced risk to a managed balance-sheet item

Key takeaway

CBAM exposure became hedge-able only once emissions data and sourcing scenarios were quantified.

CBAM Cost Calculator

Instant Cost Clarity

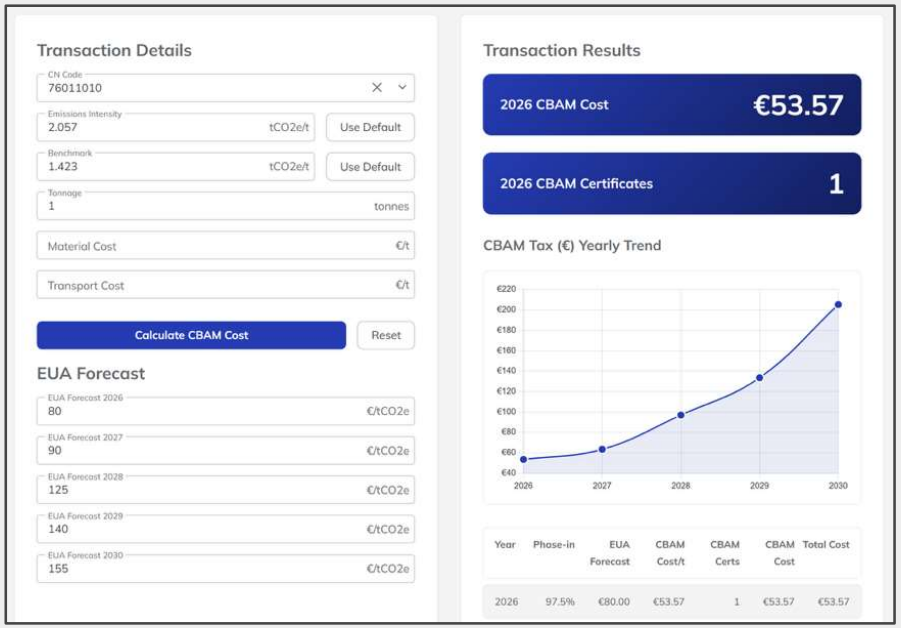
Model CBAM costs per ton in seconds across suppliers, CN codes, and countries of origin. Replace slow Excel spreadsheets with instant scenario planning from 2026–2034.

Supplier Comparison

Compare emissions intensity and cost impact between suppliers in one click. Understand worst-case default costs when supplier data is missing or incomplete.

Platform Integration

Connect seamlessly to CarbonChain's Supplier Catalogue, Data Management workflows, and CBAM reporting ecosystem. Your entry point to comprehensive CBAM management.



Try the calculator

What does this mean for market participants?

Country & production-process specific benchmarks

The benchmarks are provided on a CN code and production-process basis for steel and aluminium products.

The default emissions intensity values will also be provided on a CN code and production process basis, where applicable. Default value emissions intensities will be significantly punitive to reduce the risk of circumvention.

Many actual benchmarks will now be installation-specific

Benchmarks for simple goods manufacturers (with no precursors) are now available at the CN code level.

Benchmarks for complex goods manufacturers (goods with precursors) are calculated at the installation-level based on the weighted average precursor benchmark mix and the on-site production process-related benchmark.

Verification burden increases further

Verification takes place over the embedded emissions intensity of the production, as expected, as well as now the benchmark calculation for that installation.

This was hinted at via the materiality assessment which is expected to be set at 5% of the embedded emissions or the free allocation adjustment (benchmark).

If using actual data, you can model expected installation-level benchmarks for producers today to estimate costs


Expansion of Scope
Smelting
2.6 tCO2e/t

Scope expands in 2028

CBAM is expanding beyond today's scope

The current product list is not the end state. On 17th December the European Commission published all acts and stated explicitly that CBAM will expand over time to close carbon-leakage gaps and align more closely with the EU ETS.

This expansion is expected to move further downstream into steel and aluminium value chains including 180 steel and aluminium-intensive products, like machinery, appliances and vehicles, ensuring emissions are reduced rather than relocated.

The vast majority, 94%, of these downstream goods concerned are industrial supply chain products with a high (on average 79%) steel and aluminium content, used in heavy machinery and specialised equipment, such as base metal mountings, cylinders, industrial radiators, or machines for casting.

A small share, 6%, of the downstream goods concerned are also household goods. An EU producer of such downstream products can face increased costs for the steel and aluminium materials used in the production process.

As a result, many downstream manufacturers who are not formally "in scope" today are already being pulled into CBAM in practice. Their customers need upstream emissions data to complete their own CBAM reporting, and gaps in that data increasingly translate into commercial friction or lost business.

Our Recommendation

- Move from spreadsheet chaos to a controlled, compliant, and repeatable CBAM workflow.
- Give your customers high-quality CBAM data and strengthen your commercial position in EU markets.
- Get a comprehensive view of your supplier emissions and make changes early.

Expansion of scope of EU CBAM

CBAM scope expands downstream into ~180 new product categories and around 7,500 additional importers brought into scope. Emissions covered will be both CO2 and PFC emissions, where relevant.

Steel products

Pipes, tubes, fittings, rails for structural steel across a wide range of categories.

7301, 7302
7303, 7304, 7305, 7306
7307, 7308, 7309, 7310
7312, 7314, 7318

Combined metal

Grills, nettings, fences, caps, lids, engine pistons, furnace burners, fridge/freezers, winches, elevators.

7314, 7317, 7415
8302, 8309, 8408, 8413
8416, 8418, 8419
8420, 8421

Broad machinery

Industrial robots, tamping/ lifting machines, machinery parts, washers/dryers, agricultural machinery...

8424, 8425, 8426
8427, 8428, 8430
8431, 8432, 8450, 8451
8454, 8464, 8474, 8479

Vehicles & parts

Motors, transformers, gears, radiators, suspension, wheels, vehicle bodies, trailers, chassis, motor vehicles

8501, 8504, 8515
8704, 8706, 8707
8708, 8716
9018, 9401, 9403

Verification, Accreditation & Data Integrity

Who will be authorised to verify?

From 2026, the use of actual emissions values under CBAM is conditional on verification by an accredited verifier. The EU has introduced a dedicated delegated regulation specifying the conditions for granting accreditation to CBAM verifiers, the scope of their activities, and the mechanisms for oversight and withdrawal of accreditation.

Who can verify CBAM data?

- Only EU-accredited legal entities
- Accreditation governed by a new CBAM-specific delegated regulation
- Alignment with EU ETS verifier competence requirements

In practice, verification introduces several operational constraints. Verifier capacity is limited, particularly for installations located outside the EU. Verification of emissions data for a given reporting year cannot be completed until the production year has ended, which creates timing pressure for importers seeking to declare actual values. Where emissions data cannot be verified in accordance with CBAM rules, importers are required to fall back on default values, regardless of whether data exists internally. These constraints mean that access to accredited verifiers and the readiness of supplier data systems become critical risk factors. Early engagement with suppliers and verifiers is essential to avoid unplanned reliance on default values.

What this means operationally

- Verifier capacity is constrained
- Site visits cannot occur until post-2026 production
- Importers relying on actual values must secure verifier access early

Risk area

Failure to verify = **forced fallback to default values**, even if data exists

How does CBAM verification work?

Objective of verification

Provide reasonable assurance that data is complete, accurate and compliant

Ensure operators are following CBAM monitoring methodology and have functioning data flow and controls

Confirm actual emissions can be used for declarations

Procedure to obtain

- Pre-engagement
- Information intake
- Analysis (strategic + risk)
- Verification plan
- Execution (on-site visit)
- Review
- Report issued

Outcome of verification

Verified actual emissions: data of actual emissions can be used in importers declaration

Unresolved misstatements or non-conformance: data cannot be used and default values apply

No verification or failed verification: data cannot be used and default values apply

What are the verification timeline implications?

2026 first year data, estimates to key customers

2026 annual emissions intensity data is the first CBAM data set. Goods manufactured in 2025 but imported in 2026 will be subject to the 2026 emissions-related cost.

Installations should ensure a monitoring methodology and strong systems are in place to demonstrate emissions accounting robustness.

Q3 2026 “interim audit” and communication to market

Verification is critical when it comes to the successful operation of the EU CBAM, as is the same under the EU ETS.

Ensuring a verifier is lined up for your on-site verification (mandatory in 2026) is a critical next step for producers looking to ensure their customers can use actual data for their reporting.

Early 2027 verification of data and precursors

Verification over both the emissions intensity of the products and the free allocation adjustment for the installation is required to be performed.

This could have significant impact on far-downstream complex goods manufacturers, likely resulting in default value usage due to delays in obtaining verified data from upstream suppliers.

CarbonChain brings >6 years of experience in performing carbon accounting across actors in commodity supply chains and is here to support your installations with their full EU CBAM compliance

Driving CBAM Readiness with confidence...

Overview

CarbonChain and SGS can deliver a CBAM workflow that combines CarbonChain's automated product-level emissions calculations with SGS's independent pre-verification services.

This solution streamlines CBAM compliance for importers and suppliers by directly connecting accurate emissions data with third-party pre-verification.

Who benefits:
Importers, intermediaries, and manufacturers that need precise carbon accounting and pre-verification for their CBAM submissions.

CarbonChain

What CarbonChain Provides:

- CBAM & Product Carbon Footprint calculations for commodity supply chains
- Installation-level data preparation, MRV workflows and verification-ready reporting
- Scalable digital infrastructure for declarants and manufacturers

+

SGS

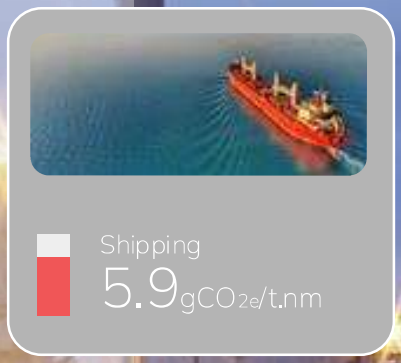
What SGS Provides:

- +15 years track record as EU ETS verifier
- Global presence and expertise in CBAM pre-verification
- Independent third-party verifier for corporate inventories and product footprints

Joint Value Proposition for Clients:

- One seamless workflow: activity-level data carbon footprinting pre-verification
- Multi-regulation compliance and pre-verification support (e.g. CBAMs, GHG Protocol reporting)
- Reduced carbon-related supplier engagement burden and data validation
- EU CBAM Definitive Period pre-verification disclosures to customers
- Get ready for the next CBAM reporting cycle with confidence, reducing compliance risk

Key changes in CBAM



Shipping

5.9$gCO_{2e}/t.nm$

Alumina Refining

0.4tCO_{2e}/t

Key aspects of CBAM that have changed

1

Default values are higher

Falling back on default values from certain countries of origin will be significantly costly, and in many cases commercially unviable. Check before you take on this risk.

2

New emissions methodology

The Commission updated the emissions methodology and scope of calculations for some CBAM goods. Ensure your suppliers are aware of these changes.

3

Installation-level benchmarks

Benchmarks must be prepared at the CBAM goods-level per installation where you are intending to use actual values. Ensure your suppliers are preparing these now.

4

Scope of goods to be expanded

From 1 January 2028, downstream goods will be included in the scope of EU CBAM. The complete list of goods is still to be confirmed, but it will be extensive.

5

Significant verification barriers

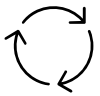
Verification will require rigorous monitoring processes to be in place at installations. Importers should not rely on actual values without clear evidence of verification readiness.

6

EU carbon price

EUAs hit a high of €87/tCO2, with bullish signs ahead for 2026 as supply tightens. Hedging will be a core risk management activity for CBAM-impacted participants.

Anti-circumvention initiatives



Pre-Consumer Scrap

Pre-consumer scrap is set to be included as a precursor CBAM good for both steel and aluminium goods. Scrap imports remain out of scope.

Safeguards

The EC increases powers with regards to review of misclassification or under-declaration of CBAM goods to ensure importers are captured.

Monitoring

The EC intends to acquire new market intelligence and databases to assess risks of circumvention relating to resource shuffling and other practices.

Agility

The EC will ensure operational agility and flexibility to quickly identify and eliminate circumvention practices that are identified by market participants.

Temporary Decarbonisation Fund

The CBAM Temporary Decarbonisation Fund is intended to use part of the revenue generated from the sale of CBAM certificates to support decarbonisation efforts for installations producing within the Union and exporting outside the EU. The intention of the fund is to avoid the leakage risk that arises from the increase in costs that installations will incur and aim to help them remain competitive on the international stage.

- Who it Impacts: EU-based manufacturers in facing high CBAM costs.
- Funding Source: The EU will allocate 25% of revenues collected from the CBAM import tax (in 2026-2027) specifically to this fund.
- Strategic Goal: To help European industries remain competitive in global export markets against foreign rivals who do not pay carbon taxes.
- The Key Condition: Companies do not receive automatic rebates; they must use this fund to decarbonise their operations.

UK CBAM Preparation & Reporting

	EU CBAM	UK CBAM
CBAM goods	Iron & steel, aluminium, cement, fertilizer, hydrogen, electricity	Iron & steel, aluminium, cement, fertiliser, hydrogen
Timeline	Transitional period until end of 2025 Definitive period from 1 January 2026	Comes into force on 1st January 2027, no transitional period
Scope of emissions	Dependent on product: Direct, (Indirect), Precursors	All products: Direct and Precursors only
Financial obligations	Surrender of CBAM certificates (based on weekly EUA price) to cover imported emissions	Payment of UK CBAM tax liability based on import volume and a UK CBAM rate established at the goods-level
Minimum threshold	>50 tonnes, aggregate per EORI per year	£GBP 50,000 (monetary-threshold), rolling 12-month basis
Default values	Permitted but designed to be punitive	Permitted until at least 2031; expect to also be punitive
Reporting frequency	Quarterly until definitive period, annual from Definitive Period onwards.	Annual in first year, followed by quarterly returns from 2028

EU & UK Emissions Trading System Linkage

- Following the end of the Brexit transition period, the UK left the EU ETS and established its own, separate, UK ETS. The UK ETS is similar, but not identical to the design of the EU ETS.
- 19 May 2025 UK- EU Summit: Announcement to link EU and UK ETS. 'Common understanding'. Market commentators expect a linkage to occur at the earliest in 2028/9.
- Draft EU CBAM legislation includes power to create exemption for goods originating from a jurisdiction with a linked carbon pricing scheme (section 14). No countries initially included here.
- If the EU and UK link their ETS systems then there would be no reporting obligation for goods originating from the UK or EU under both EU and UK CBAM, as an effective carbon price has already been paid.

CBAM Readiness Checklist

10 Step Readiness Checklist

- ☑ Scope & Product Identification
- ☑ Supply Chain Mapping & Supplier Engagement
- ☑ Data Collection & Data Quality
- ☑ Emissions Methodology & Calculation
- ☑ Registry Access & Authorised Declarant Status
- ☑ Reporting & Compliance Management
- ☑ Verification Readiness (Definitive Phase)
- ☑ Financial & Carbon Price Exposure
- ☑ Procurement & Commercial Strategy
- ☑ Governance, Ownership & Ongoing Monitoring

Roheet Shah
Co-founder & COO
CarbonChain

CBAM compliance is a complex process involving many levels of collaboration. We are hearing daily from clients who are worried about data infrastructure quality, data accuracy and passing verification when the time comes. It is imperative that companies are as thorough as possible from the start.

Our key recommendations for next year

Effective supplier emissions data management

Supplier emissions data comes in all shapes and sizes. Understanding, collating and interpreting it correctly will facilitate decision making across your business. Get control of this data, and you can quickly get control over CBAM and its impact on your business.

CarbonChain centralises and standardises supplier emissions data, mapping it to the correct CBAM production routes and benchmarks so clients can confidently prepare for the use of actual data going into 2026.

Continue quarterly data preparation processes

Ensuring the continuation of the quarterly reporting process – despite the relinquishing of the obligation next year – will set businesses up for success and transparency as the impact of CBAM evolves through the Definitive Period.

Ensure you are prepared for a worst-case, default value cost scenario.

CarbonChain's reporting and emissions data management modules ensure you can keep on top of your CBAM exposure and correctly prepare to allocate costs tied to your CBAM liability for next year.

Engage & communicate well with your suppliers

If it wasn't clear already, supplier engagement and trust is key to managing your CBAM compliance effectively. Carbon accounting under EU CBAM is complex and so ensuring effective interactions with key suppliers is critical.

CarbonChain provides supplier-facing workflows that support their CBAM data requirements and simplify the preparation and management of emissions. We can also facilitate full Product Carbon Footprint calculations in line with the GHG Protocol Product Standard.

Final thoughts

Adam Hearne

Co-founder & CEO

CarbonChain

The past year has been defined by anticipation. CBAM, still in its transitional phase, felt incomplete. That uncertainty is now giving way to clarity. With the leak of more than 1,300 pages of draft documentation, confirmation of default emissions intensities and benchmarks, and Member State approval of pending Acts on 9 December, the direction of travel is no longer ambiguous.

CBAM is moving downstream.

This shift was always inevitable if CBAM was going to succeed beyond 2028. Europe cannot meaningfully price embedded carbon if final transformation steps simply move outside the EU and products are imported back in. What matters now is not just scope expansion, but what it reveals about the system being built.

CBAM is no longer just a border measure. It is becoming a data infrastructure.

In the period leading up to implementation, behaviour across the market is already adjusting. We are seeing clear signs of tactical positioning, with metal being imported and customs-cleared ahead of CBAM obligations. As a result, near-term demand dynamics are expected to be muted, with a meaningful share of early 2026 consumption likely met by inventory already in free circulation.

This has led many market participants to anticipate a lagged impact. The immediate effects of CBAM may not be fully visible at the start of the definitive phase, but will emerge once replacement units are required and new purchasing decisions must absorb the embedded carbon cost. In other words, the regulatory signal is clear, but the price signal may take time to surface.

What is already changing, however, is the quality of conversation in the market. Discussions are shifting away from short-term arbitrage and toward emissions intensity, supplier provenance, and data credibility. Even where CBAM costs are temporarily deferred through inventory, future exposure is now being actively modelled and priced into procurement strategies.

This pattern reinforces a broader point: CBAM is not a moment, it is a transition. Its effects accumulate through sourcing decisions, contract structures and supplier relationships long before they appear in headline pricing.

We've valued supporting clients through this phase of anticipation and adjustment, helping them interpret policy developments, assess emissions exposure, and prepare for the definitive regime with confidence. As CBAM moves from theory into market reality, informed positioning and trusted data will increasingly separate those reacting late from those already ahead of the curve.

Bonus Resources

The European Commission's Resources

- EU Commission's CBAM Explainer
- Cement Sector
- Hydrogen Sector
- Aluminium Sector
- Fertilizer Sector
- Iron & Steel Sector

CarbonChain Resources

- CBAM Cost Calculator
- CBAM Supplier Catalogue
- Steelforce streamlines CBAM reporting
- TFG Article on CBAM
- Summary of UK CBAM
- CarbonChain LearnHub
- Summary of EU CBAM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