

CBAM: Understanding and mastering the EU carbon border adjustment as a procurement topic

CBAM (Carbon Border Adjustment Mechanism) is the European Union's carbon border adjustment system, under which imported, emissions-intensive goods have been subject to an import levy since 2023. For technical buyers, CBAM means that supplier notifications, emissions data and financial burdens must in future be actively factored into procurement decisions. Anyone who structures their obligations early can estimate compliance costs, manage suppliers and avoid competitive disadvantages.

Key facts

- CBAM covers imports of iron, steel, aluminium, cement, fertilisers, electricity and hydrogen into the EU.
- From 2026, CBAM certificates will be issued at the price of the EU Emissions Trading System (ETS) and will become financially effective.
- During the transitional phase (until the end of 2025), only quarterly emissions reports are required, without the purchase of certificates.
- The EU declarant, typically the importer, bears the reporting and payment obligations.
- Buyers need reliable emissions data from their suppliers, in particular actual values instead of default values.
- CBAM affects not only direct importers but also, via the value chain, medium-sized suppliers.

Definition: What is CBAM?

CBAM is an EU mechanism that imposes a levy on imported emissions-intensive goods equivalent to the CO costs that would have arisen under the EU Emissions Trading System. The aim is to eliminate the competitive advantage of foreign manufacturers producing under less stringent climate rules.

Legal basis and transitional phase

The basis is the CBAM Regulation of the European Union, which entered the transitional phase on 1 October 2023. During this phase, only reporting obligations must be met; the certificate obligation and financial burden only begin from 2026. In practice, this means: buyers have until then to build up data processes and supplier structures.

- The levy starts with the definitive period from 2026
- The transitional period serves to build up data collection processes
- Validity rules and adjustments to the regulation must be reviewed continuously

Distinction from the EU Emissions Trading System

CBAM complements the EU ETS but does not replace it. The idea: importers pay CO costs similar to those borne by European producers who trade in the ETS. Deductible costs from existing emissions trading systems in the third country are taken into account to avoid double charging.

Methods and approach in procurement

For procurement, CBAM begins not with certificates but with transparency: which covered goods are sourced from which third-country suppliers? This is followed by systematic data collection and an assessment of the impact on procurement costs and supplier strategy.

Identify CBAM-relevant goods and suppliers

First, the existing procurement portfolio is to be classified by goods items. Similar to a subcontracting analysis, structuring by material classes helps identify critical segments. Typical CBAM items are steel and aluminium semi-finished products, castings and forgings as well as precursors entering the EU.

- Analysis of procurement volume by CBAM goods categories
- Identification of third countries with high CO intensity
- Assignment to procurement categories (cross-functional sourcing)

Systematically collect emissions data

Information on embedded emissions is required – quarterly during the transitional phase, later annually in detail. Reliable data requires structured data collection, ideally via a procurement ETL process that consolidates master data, supplier information and certificates. Default values may only be used in limited cases and typically result in higher levies, so actual values are to be preferred.

- Use a procurement ETL process for consolidated emissions data
- Prefer actual emissions over default values
- Agree templates and evidence formats with suppliers

Integration into procurement strategy and tendering

CBAM costs should be factored into tenders and negotiations at an early stage. Via electronic tendering, CBAM data can be requested and made transparent in price comparisons. This prevents supposedly cheap offers from later being eroded by certificate costs and being incorporated, together with logistics costs and customs duties, into the total cost of ownership.

Key KPIs and metrics around CBAM

CBAM is measurable – and should be measured to make the impact on costs, data quality and supplier performance visible.

Data quality and completeness

The key metric is the share of suppliers with valid emissions data. In practice, many companies aim for a rate of over 90 %. Also useful is the share of units reported with actual rather than default values.

- Rate of valid supplier data per material class
- Share of actual vs. default emissions values
- Lead time of data submission per quarter

Keeping cost impacts under control

From the embedded emissions, forecast CBAM costs per tonne of goods can be calculated by multiplying by the current ETS price. These values belong in the savings pipeline so as not to distort true cost savings: savings on purchase prices can be partially offset by CBAM certificates. Early-warning indicators on ETS price developments help to react at short notice.

Extending supplier evaluation

CBAM CO intensity should be incorporated into regular supplier evaluation. As part of annual reviews with strategic suppliers, reduction targets and data transparency can be anchored as part of supplier development – analogous to classic quality and delivery KPIs.

Risks and controls: where procurement is challenged

CBAM brings several risks: incorrect or incomplete data, rising procurement costs, supplier changes and regulatory changes. Systematic risk management is therefore essential.

Data risks and supplier integrity

Inaccurate or incomplete emissions data can lead to clawbacks, penalty payments and reputational damage. Buyers should provide for control mechanisms – such as plausibility checks, regular audits and clearly defined contract clauses on data delivery and liability. Analogous to claim management, unmet information obligations can be pursued as a breach of contract.

- Contract clauses on emissions data delivery and liability
- Plausibility checks and sample inspections
- Escalation levels analogous to claim management

Cost and currency risks

The CBAM cost share fluctuates with the ETS price. For CBAM-relevant goods, buyers should consider – analogous to forwards & swaps – whether price volatility can be hedged, for example through price adjustment clauses or fixed supplier contracts. Change management is also required when manufacturing processes or countries of origin change, as this alters the embedded emissions.

Complexity in the supply chain

CBAM rarely affects only the direct importer. Intermediate products and suppliers can also be affected. Analogous to exception management, there should be clear rules on how missing data, special cases and exceptions are handled – without blocking the operational material flow.

Current developments and outlook

CBAM is still under construction and is being developed continuously. Buyers should actively track changes to the regulation and translate them into processes.

Expansion of the goods catalogue

The EU is examining extensions to further goods groups and downstream products. In practice, this means: those who only keep an eye on steel and aluminium today should build the structure so that further categories can be integrated in the future without starting from scratch – similar to category intelligence, which makes continuous market and regulatory monitoring an integral part.

Digitalisation and automation

Increasingly, CBAM data can be captured via platforms and APIs. As with cycle counting or dock-to-stock, where automated processes improve operational KPIs, CBAM also benefits from automation: automatic scheduling of data requests, periodic reminders and system integration reduce manual effort and error rates. Dock appointment and freight audit remain separate topics but can be integrated into the same integrated process landscape.

Interplay with sustainability requirements

CBAM overlaps with other EU requirements such as supply chain due diligence and sustainability reporting. Anyone who harmonises data models and supplier governance early avoids duplicate work and creates a viable foundation for sound procurement decisions.

Typical metrics

Share of suppliers with valid emissions data: > 90 %

Target completeness in practice for CBAM-relevant material classes.

Share of actual emissions values: > 80 %

A higher share of actual rather than default values reduces levy risk.

Forecast CBAM costs per tonne of goods: depending on ETS price

Ongoing updating based on the current certificate price.

Reporting timeliness: > 98 %

Share of quarterly reports submitted on time.

Practical example

A medium-sized machine manufacturer sources steel profiles and aluminium castings from a third-country trading partner. Until now, price differences between EU suppliers and third-country suppliers were regarded as pure price advantages. After the first CBAM report, it becomes clear: the third-country supplier cannot provide actual emissions values; the default value is well above the EU average. Once expected certificate costs are factored in, the supposed price advantage evaporates.

- Systematic CBAM analysis of all procurement categories and suppliers
- Contract adjustment: obligation to supply emissions data with liability
- Establishment of a procurement ETL process to consolidate the quarterly reports
- Inclusion of CO intensity in supplier evaluation and annual reviews

Conclusion

CBAM is fundamentally changing the procurement of emissions-intensive goods – not only from 2026, but already during the transitional phase. Buyers who build data processes early, integrate CBAM costs into the total cost view and actively hold suppliers accountable secure advantages. Those who treat CBAM merely as a compliance topic will pay later: through clawbacks, expensive supplier changes and lost negotiating positions. Those who integrate the mechanism into category strategy, tendering and supplier management turn it into an active lever for cost security and sustainability.

Frequently asked questions

From when do I have to buy CBAM certificates?

The certificate obligation begins with the definitive period from 2026. Until then, the transitional phase applies, which entails only reporting obligations. Exact dates and possible adjustments should be checked regularly against the current regulation and official announcements.

Which goods fall under CBAM?

Initially affected are iron and steel, aluminium, cement, fertilisers, electricity and hydrogen. The EU plans extensions, including to downstream products. Buyers should check the goods catalogue regularly for new CBAM items.

Who is obliged to report under CBAM?

The obligation lies with the so-called EU declarant, usually the importer who declares the goods in customs clearance procedures. SMEs importing CBAM goods are therefore directly affected – even if they first have to request the emissions data from their suppliers.

What happens if my supplier does not provide emissions data?

If no actual values are available, default values apply, which in practice typically result in higher assumed emissions and thus higher CBAM costs. In addition, there is a risk of breaching notification and reporting obligations. Contract clauses on data delivery and escalation processes analogous to claim management are therefore advisable.

Does CBAM also affect the procurement of components?

Yes, insofar as the components fall under the covered goods categories or contain CBAM precursors. The levy is calculated minus the EU climate costs already borne by EU goods. Complex finished parts are currently only partially covered; an extension is under discussion.

How do I calculate CBAM costs in procurement?

The basis is the embedded emissions per tonne of goods, multiplied by the relevant ETS certificate price, minus CO costs already paid in the third country. Since the ETS price fluctuates, ongoing updating and inclusion in the savings pipeline are recommended.