Cutting Carbon, Cutting Costs: how the Carbon Border Adjustment Mechanism can drive sustainable profits

Turning the CBAM challenges you face into a green competitive advantage

Deloitte.

WHAT YOU WILL LEARN

1. UNDERSTANDING THE POLICY CONTEXT

- **Objectives of the CBAM**, a vital component of the Green Deal, which will help the EU reach net zero emissions
- **Scope of the CBAM**, including which sectors and products are covered
- **Timeline of the CBAM,** indicating when the **transitionary period** and **full scope** is expected to come into effect

2. REPORTING CARBON EMISSIONS IN AN ADEQUATE AND EFFICIENT MANNER

- How to **calculate** emissions under the CBAM regulation
- How to **report** to the competent authority
- How the **CBAM report** should be drafted
- How **collection and reporting of emissions can be streamlined**

3. INCORPORATING A CARBON PRICE INTO YOUR STRATEGIC INVESTMENT DECISIONS

- How to develop a **GHG reduction strategy** accounting for the impact of CBAM
- How to handle **fluctuating carbon price**
- How to **incorporate your carbon footprint** into evaluating emission reducing investments and their associated costs~~?~~

4. QUANTIFYING THE WILLINGNESS TO PAY FOR A GREEN PREMIUM

- How to refine your **price setting strategy** to include a green premium in your offering to clients
- How to leverage **where you play in the value chain** to include your carbon footprint in your pricing

5. SUPPLIER LANDSCAPE OPTIMIZATION

- How CBAM will affect your current **supplier base from a risk appetite and cost structure point of view**
- How to **engage with your suppliers** and how to stimulate joint GHG reduction targets~~?~~

6. TAKING ACTION

We can **support** you with:

- Setting up the necessary **monitoring and reporting systems**
- Executing an **internal impact assessment**
- Redesigning your **supply chain**
- Defining a resilient **GHG reduction strategy** with a strong **product offering** supported by the right **investments**

The CBAM serves as a tool in the EU's net zero strategy…

The EU's Net Zero ambitions

Green Deal

- The EU had adopted a **sustainable growth plan** to support its **Green Transition.**
- The Green Deal provides a **roadmap,** and sets **goals** to reach **climate-neutrality by 2050**

Fit for 55 Package

- The Green Deal includes the **Climate Law** and **Fit for 55 package**, which binds the EU and Member States to a goal of achieving **climate neutrality by 2050**.
- The package also defines an interim EU target of **reducing GHG emissions** by at least **55% by 2030** compared with 1990 levels.

Addressing carbon emissions in the EU

The EU Emission Trading System (ETS) - Reducing industrial emissions

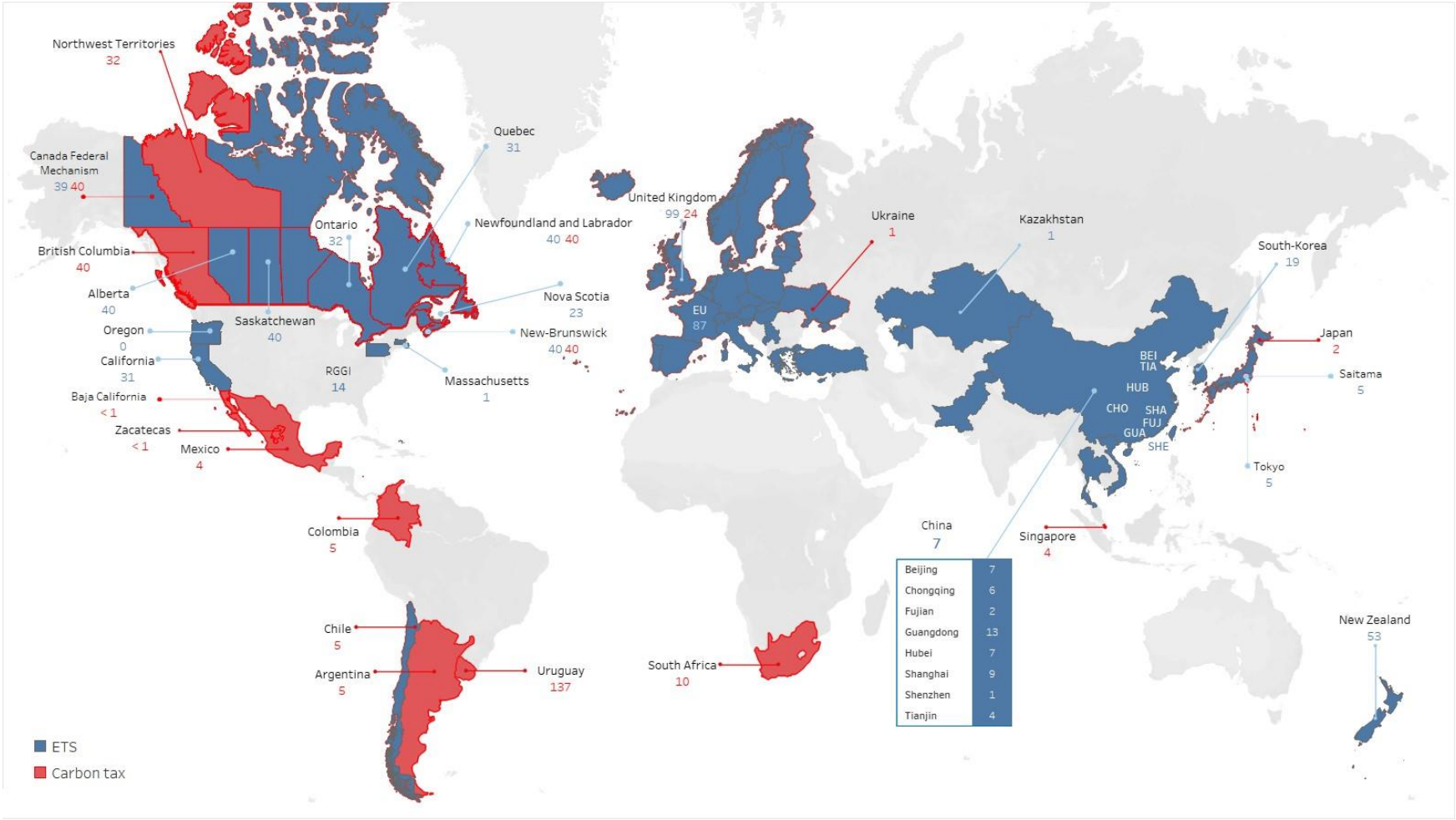
- The EU Emissions Trading System (ETS) is the core EU mechanism that ensures **industrial decarbonisation in line with the Green Deal.** This is because the **overall cap on GHG emissions** allowed by entities in-scope of the ETS **reduces over time** to meet the Climate Law targets.

The EU Carbon Border Adjustment Mechanism (CBAM) - Mitigating carbon leakage

- 'Carbon leakage' refers to the situation that may occur if, for **reasons of costs related to climate policies, businesses were to transfer production to other countries with laxer emission constraints**. This could lead to an **increase in their total emissions globally**. The risk of carbon leakage may be higher in certain energy-intensive industries.[1]
- To mitigate this risk, **sectors and sub-sectors considered to be at risk of carbon leakage** currently receive some or all of their **ETS emission allowances for free** ('free allowances').
- As the **provision of free allowances is set to reduce**, the EU is proposing the **CBAM, targeting scope 3 upstream emissions, as a new policy tool to mitigate the risk of carbon leakage** for ETS sectors.
- The increased costs associated with the CBAM will incentivise companies to invest in **cleaner supply chains**.

… which will also encourage the global uptake of carbon pricing

Map of explicit carbon prices globally – September 2022 – prices given in USD per tonne of CO2eq[1]



- Recent years have seen the **proliferation of explicit carbon pricing systems** (taxes or tradeable allowances) globally – as illustrated in the map.
- Currently **40 national and 25 sub-national jurisdictions put a price on carbon**, covering 15% of global GHG emissions[2].
- However, there are still **large differences in the level of carbon pricing and the sectors that are covered**. This means that importers from countries which have lower carbon prices and/or sectoral coverage (in sectors covered by the EU CBAM) would still pay a CBAM levy to account for this discrepancy.
- One of the aims of the CBAM is to **incentivise third countries to strengthen their carbon pricing systems to avoid CBAM levies** – meaning we can expect to see a **further proliferation in global carbon pricing.**

[1] Global carbon accounts in 2022 - I4CE, cut-off date of January 2022. for Europe we include the most recent carbon price as per Ember in the remainder of our PoV [2] About Carbon Pricing | UNFCCC

The following goods will be in-scope of the CBAM

Through the CBAM, imports to the EU will be subject to an equivalent carbon price to the one EU producers pay under the ETS. In order to be as comprehensive and efficient as possible, the CBAM aims to broaden its scope in goods and emissions along the value chain. As a result, the regulation will ultimately target all ETS-covered goods and encompass all direct and indirect emissions to address the full Life Cycle of goods' value chains.

CBAM will encompass following goods[1]:

- **Direct emissions** arising from the production processes of goods including emissions from the production of heating and cooling consumed during production processes.
- **Indirect emissions – for specific goods -** arising from the production of electricity, which is consumed during the production processes of goods.

Cement

Iron & Steel

Hydrogen

Aluminum

Fertilisers
(except for fertilisers containing Phosporous & Potassium)

Electricity

The CBAM will not apply to: (i) Imports from countries which are covered by the EU ETS (i.e. EEA countries) and countries with a domestic ETS linked with the EU ETS (i.e. Switzerland), **(ii)** Low value shipments, and goods to be moved or used in the context of military activities.

During the transition period, the European Commission will undertake regular assessments of the CBAM to evaluate:

- **Product Coverage**: potential expansion of product coverage to organic chemicals and polymers as well as other precursor materials and other downstream products in the value chains, ultimately including all ETS-covered goods.
- **Emission extension**: potential coverage of embedded indirect emission attached to imports of iron, aluminum, steel, hydrogen as well as transportations' indirect emissions of CBAM goods.
- **Export rebate**: assessment of the CBAM's effectiveness in reducing carbon leakage for EU-produced goods exported to carbon pricing-free third countries and repercussions on trade.

1 Only products with the NC-codes mentioned in legal texts will be included under the CBAM ; CBAM impact Assessment EU taxation EU CBAM Brief

Timeline

2021 - 2023

Commission Proposal

The European Commission adopts the CBAM proposal

Reaching common grounds

Following three-way negotiations, the European Commission, the Council of the European Union and the European Parliament reach common alignment, specifically on the following:

- Extension of the original scope to Hydrogen, iron and steel-based processed products
- Inclusion of indirect emission under "certain conditions"
- Centralisation of implementation with the European Commission
- Alignment with WTO rules
- Channeling revenues toward supporting decarbonisation efforts in least developed countries

Vote, adoption and publication of the implementing acts

2023 - 2025

From 1 October 2023 to 31 December 2025

During the Transitional period, the European Commission will assess the **efficiency** of the CBAM and consider further **scope expansion**

Obligation for companies **to report quarterly** on CBAM imported goods. There is no data verification nor CBAM certificate purchase requirement.

Companies are requested to fill the first quarterly CBAM report for the October – December 2023 period in **January 2024**

As of **January 2025,** importing companies will be requested to apply for the status of **Authorized CBAM Declarant**

Companies failing to submit their reporting activities and / or abstaining from applying to the Authorized CBAM Declarant will be subject to a **Correction Procedures** by competent authorities in the Member State they are established in.

In case of failure to take the necessary steps during a correction procedure, the customs authorities shall impose an "*effective, proportionate and dissuasive*" **penalty** on the importer.

2026 - 2034

- **As of 1 January 2026: gradual roll-out of the policy**

Authorised CBAM Declarants will be allowed to **import CBAM goods** into the European Union. Registered companies will be requested to offset their emissions as of **January 1st 2026**

Declarants will be required to:

- Submit a yearly CBAM declaration by **31 May every year**
- Ensure reporting verifications by an **accredited verifier**
- **Buy CBAM certificates** from competent authorities in Member State authorities in which importers are based
- **Surrender CBAM certificates** declaring the verified emissions from the previous year, through the CBAM registry by **31 of May every year**

- **Full scope implementation of the policy**

The European Commission is aiming for a full roll-out of the CBAM by 2034. The CBAM will apply to all ETS-covered goods and will encompass direct and indirect emissions and will potentially be expanded to downstream supply chains.

In order to prepare for the **Full Scope implementation** of the CBAM, **Declarants** are advised to:

- Design and implement internal data monitoring systems collecting emission data and scheduling verifications
- Develop close monitoring of domestic carbon costs
- Appoint indirect customs representatives in the EU
- Register foreign installations in the future EU CBAM registry

Discussion Period & Text Elaboration | *Transition Period* | *Towards Full Scope*

CBAM impact Assessment ; EU taxation EU CBAM Brief ; CBAM timeline

Key challenges that EU established importers will face

European importers will face challenges related to reporting during the transition period…

Transition period

Reporting burden

Quarterly CBAM reports need to be filed in, splitting out volumes per product, producer and country you import from. This burden will fall on the EU established importing company ('the declarant').

Sourcing of data

Companies will have to articulate the data and quality required from their suppliers in order to modify current Enterprise Resources Planning (ERP) systems to consider new parameters, while overarching, collaborative systems should be developed and implemented across business units and company borders to ensure live data reflecting the production process.

Unavailability of data

When the carbon footprint of a product cannot be reported, average emissions of the most carbon-intensive plants in the respective region producing comparable products will be taken. If this data is also not available, the emission intensity of the worst performing plants in the EU will serve as proxy. Details on the determination of these default values will be published in the implementing acts.

… and should already prepare to be well positioned when the CBAM comes into force fully

Full scope

Supplementary reporting

EU established importing companies will need to acquire a license to import CBAM goods and will have to submit annual CBAM declarations. These declarations need to be verified by a third party.

Financial impact

The higher your scope 3 upstream emissions, the more CBAM certificates you will have to purchase. Certificate prices will be linked to the weekly average of ETS-allowances. 80% of your emissions always need to be covered in your CBAM account. This will lead to a financial impact for importers, but also increased costs for downstream manufacturers.

Supply chain continuity

The supply chain of products manufactured from in-scope materials needs to be completely reviewed, to shift to less carbon-intensive producers where possible. This can lead to a complete overhaul of material sourcing, with new competitors throughout the value chain showing up, and manufacturers relocating their production.

Regulatory uncertainty hindering long-term investments

- *The complexity of some downstream, semi-finished products being classified as in-scope of CBAM, while others remain out-of-scope.*
- *Lack of EU-wide export rebates, with member states being granted the right to support companies at risk of being harmed by the phaseout of free permits; which could lead to an unlevel playing field.*

How companies should respond to the effects of CBAM

Before start of transition period (October '23)

Internal impact assessment

- Create a holistic overview of the CBAM's potential impact on your production processes.
- Map your carbon footprint and origin of all emissions within your operations and value chain per product line to measure your company's exposure to CBAM levies.

Start evaluation of supply chain

Analyse outcomes of the internal impact assessment to define priorities for future alternative suppliers.

Start of transition period (October '23)

GHG reduction goals integrated into strategic investment evaluations and pricing

Develop a Carbon Reduction Strategy to minimise costs, considering alternative approaches (e.g. new suppliers with lower carbon emissions, improving the efficiency of the manufacturing process, more environmentally-friendly transportation and logistics practices…)

Calibration of supply chains in line with sourcing strategies

- Identify weak links in your supply chains and target new partnerships to minimise costs.
- Identify alternative suppliers that fit within your renewed sourcing strategy and set up new partnerships.

Start full scope CBAM (January '26)

New product offerings

Introduce new products that align with your carbon reduction goals as defined by your carbon reduction strategy

Engage with Customers and value chain partners

Understand their expectations and concerns regarding the carbon footprint of your products. This information can be used to further refine your carbon reduction strategy and to develop a differentiated product portfolio that meets the needs of customers and value chain partners.

Reporting requirements

- Set up an internal monitoring system with all the embedded emissions for the development of the imported products.
- Register foreign installations in the future EU CBAM registry.
- Appoint indirect customs representatives in the EU.

Reporting requirements

- Continuously monitor emissions to track the success of your carbon reduction strategy, as well as identify areas where additional action may be needed.
- Reporting (in) direct emissions generated by imported products on a quarterly basis.

Building a competitive advantage from the valorisation of your carbon footprint

The four main areas where we see CBAM having an impact

Reporting Strategy

Good and integrated reporting with value chain partners (in line with ESG reporting from key suppliers and clients) ensures you pass the audits and avoid high import levies for your company and your suppliers

Strategic Investment Evaluation

Strategically evaluating where to invest in this carbon constraint world will be key in improving the GHG footprint of your products, and thereby reducing the impact of CBAM on your costs. Your strategic investment decisions will need to align with your sustainability/ESG strategy and those of your key customers.

Willingness to Pay

The willingness to pay for green premiums needs to be quantified and incorporated in your pricing. This can lead to a differentiated product offering based on products with varying carbon intensity.

Supplier landscape optimization

Your supplier landscape needs to be revaluated to assess the potential commercial impacts on your product portfolio. This should lead to a cost impact assessment on the affected portion of the supplier landscape, to be completed in relation to the CBAM Based on this assessment the affected stakeholder groups can decide if it is necessary to run a market exercise.

Key takeaways

Calculating and reporting emissions on product and company level are fundamental steps to be compliant with the CBAM regulation.

Quantifying your carbon footprint creates a framework to evaluate emission reducing investments and their associated costs, in line with your GHG strategy.

Your price setting strategy and where you play in the value chain will impact how you incorporate your carbon footprint in your pricing.

How will CBAM affect your current supplier landscape from a commercial risk and security of supply perspective?

How will CBAM impact your work

Tax manager

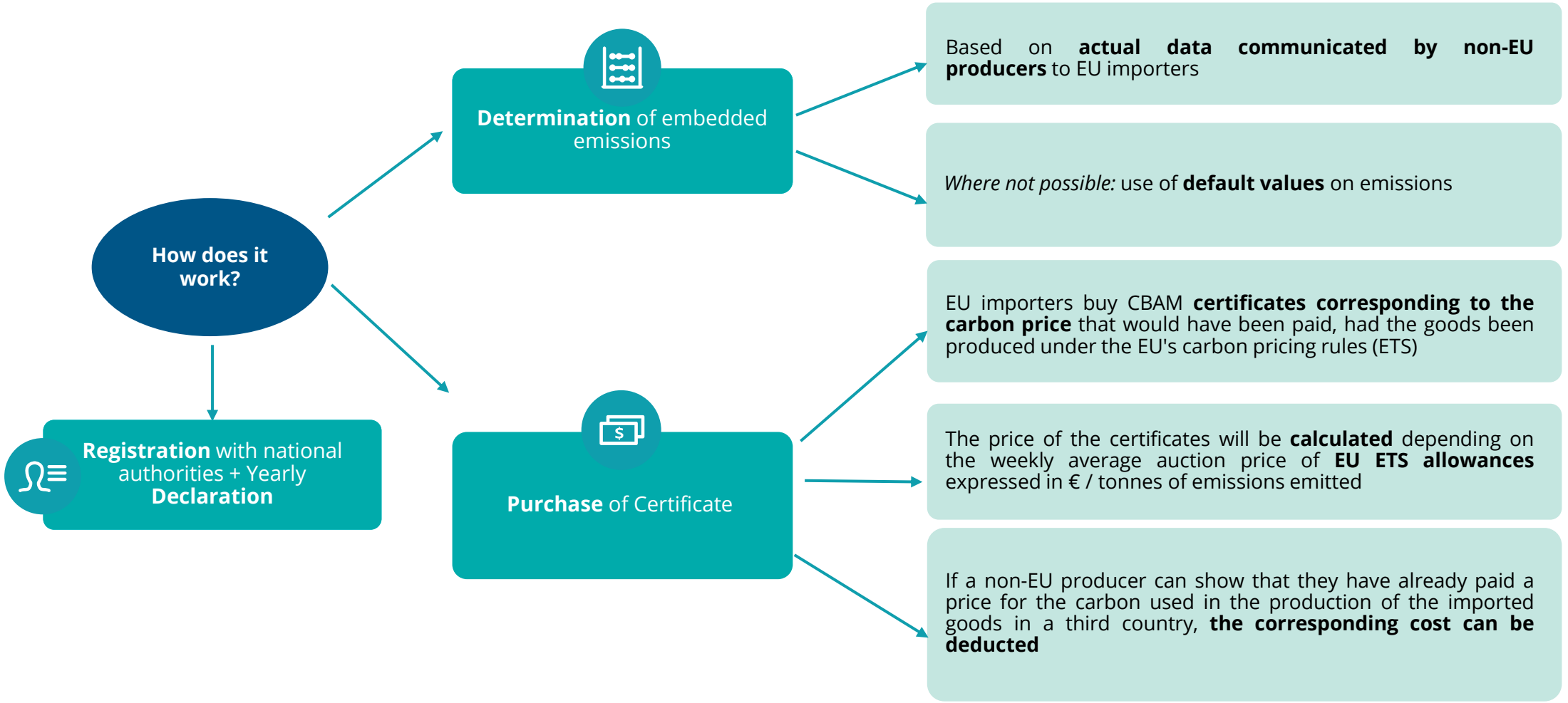
A new legal framework will need to be taken into consideration when analyzing the overall compliance of the company.

CEO (strategy & sustainability)
Incorporating a carbon price will alter the profitability of your investments, which will push you to redefine your strategic investment evaluations in line with your GHG strategy.

CFO (pricing & finance)
Developing a differentiated product offering with varying prices depending on the carbon intensity of your product enables you to profit from your sustainability efforts.

CPO (Chief Procurement Officer)
Screening the carbon footprint of sourced materials and engaging with suppliers will become a key activity when sourcing outside of the EU.

How will CBAM reporting work?



Reporting obligations of an authorised CBAM declarant

Reporting obligations apply to **importers established in a Member State** of the EU (or to indirect customs representatives upon agreement between both parties).

When the importer is **not established in a Member State**, the reporting obligations apply to the indirect **customs representative**.

To become a national **authorised CBAM declarant**, the importer must submit an application through the **CBAM Registry**. The authorisation is required from 31 December 2024.

How will the CBAM reporting obligations be structured and implemented ?

Transitional period

From 1 October 2023 until 31 December 2025:

- The obligations of the importers will be limited to the reporting of information concerning imported goods. No purchase of CBAM certificates will be required.
- A so-called "**CBAM report**" shall be submitted **quarterly** to the European Commission no later than 1 month after the end of the given quarter.

Full-scope

As from 2026:

- After the transition period, the CBAM declaration for the preceding year shall occur **yearly**, by 31 May.
- The number of CBAM certificates available on account (via the CBAM registry) must, at the end of each quarter, correspond to at least 80% of the embedded emissions in all imported goods since the beginning of the calendar year.

What your CBAM report should contain

The CBAM report must contain the following information:

1. **The total *quantity* of each type of good:** the quantity shall be expressed in megawatt hours (MWh) for electricity and in tonnes for other goods, specified per installation producing the goods in the country of origin

2. **The *actual total embedded emissions:*** Actual embedded emissions are emissions calculated based on primary data from the production processes of goods (direct emissions) and – where applicable - from the production of electricity consumed during such processes (indirect emissions).

3. **The *total indirect emissions:*** In principle, embedded indirect emissions are calculated based on default values. When criteria listed in Annex III, pt 5A are met, embedded indirect emissions may be determined based on actual emissions.

4. **The *carbon price due in a country of origin for the embedded emissions* in the imported goods:** taking into account relevant rebates or any other forms of compensation.

Calculating emissions under CBAM

Actual embedded emissions

- Actual emissions are calculated based on a **calculation method** that differs depending on whether the input materials and fuels required in the production process have embedded emissions ("**complex goods**") or not ("**simple goods**").
- Both calculation methods for complex and simple goods are based on:
  - The amount of direct and indirect emissions caused by the production process (and the emissions of the input materials and fuels for complex goods)
  - The quantity of goods produced in the reporting period.
- Where actual emissions cannot be adequately determined, the embedded emissions shall be determined by reference to **default values** (based on reliable and publicly available data). More details will be published by the European Commission in that respect. The use of default values is expected to be less advantageous than the use of actual data to calculate the emissions.

Electricity

Specific methodology

- Embedded emissions in imported electricity shall be determined as follows:
  - In principle: by reference to default values (cf. calculation method in Annex III, pt 4.2)
  - In some specific cases: based on the actual emissions (criteria listed in Annex III, pt 5)

Indirect emissions

- Embedded indirect emissions shall be calculated based on **default values**, **unless** the authorised CBAM declarant demonstrates:
  - A **direct link** to the electricity generation source
  - Or that they have concluded a **power purchase agreement** with a producer of electricity located in a third country for an amount of electricity that is equivalent to the amount for which the use of a specific value is claimed. In that case, the embedded emissions may be determined based on the **actual emissions**.

Current challenges in collecting and reporting on emissions

Emission reporting represents a **high-manual effort from experts**, which is also **time-consuming**.

Manual data collection and manual reporting will likely not be sufficient, as there is a high variety of reporting standards and a need for auditable data; to assess product footprints frequently and at scale which will also require significant efforts from suppliers

CBAM related data initiatives should be **incorporated in already existing data collection and reporting frameworks**

Having correct and up-to-date data to declare is key. It needs to be transparent, automated, traceable and verifiable.

Therefore, it is necessary to have the **right digital solution** in place to calculate this for you.

IT solutions that can facilitate accurate and efficient emission reporting

Deep SAP implementation and sustainability expertise *which helps clients on their end-to-end decarbonisation journey.*
Deloitte services:

- *Materiality analysis, business objective definition*
- *Support in external data sources selection*
- *Assessment of product lifecycles (LCA)*
- *Support in product footprint calculations methodology and data mappings*
- *End-to-end design/implementation of the SAP Product Footprint Management solution, Footprint audits and benchmarking services*

Anaplan allows clients to ***improve sustainable performance management*** *by:*

- *Automating the data collection and calculation, reducing manual work*
- *Freeing up time of the Global Sustainability director*
- *Allowing for the KPI reports and analyses to be dynamically accessed and used by all staff members*

Aravo *enables you to keep inventories of all your third-parties and their associated risks, including GHG emissions and CBAM reporting.*

Envizi *is an emerging IT value chain solution. This software helps clients* ***transform their end-to-end value chain*** *by establishing and enriching* ***transparency and traceability****.*

Deloitte has **partnerships with all the big data software providers** that can enable automatic data collection. Besides these partnerships, we have also **developed in-house tools** to guide you on your decarbonization pathway

Deloitte has developed the **Greenlight-toolkit**, an enterprise solution for clients to take action across every stage of their decarbonisation journey through different modules.

DecarbSolution

Deloitte's Global Decarb Solution *is a proprietary accelerator allowing organisations to manage market obligations by understanding and visualising their carbon footprint, establishing emissions targets, evaluating abatement opportunities, and optimising their abatement project portfolio to refine their emissions strategy and achieve their emissions reductions goals.*

CognitiveSpend

CognitiveSpend *applies a combination of machine learning and trained experts in the US Delivery Center to provide a more accurate, fast, cost-effective, and reliable output for clients as compared to manual methodologies when classifying complex transaction data*

AbatementLibrary

The Abatement Library *is a compilation of high-abatement, high-adoption potential projects that clients can pursue to reduce their emissions, with cost and abatement potential estimations included to inform additional research.*

Deloitte has also created the **TRADEClassifier**, a Classification Automation Solution that uses AI to automate the end-to-end classification process. By providing certainty about the correct classification of products, this tool will play a crucial role in ensuring compliance under CBAM.

Building a competitive advantage from the valorization of your carbon footprint

The four main areas where we see CBAM having an impact

Reporting Strategy

Good and integrated reporting with value chain partners (in line with ESG reporting from key suppliers and clients) ensures you pass the audits and avoid high import levies for your company and your suppliers

Strategic Investment Evaluation

Strategically evaluating where to invest in this carbon constrained world will be key to improving the GHG footprint of your products, and thereby reducing the impact of CBAM on your costs. Your strategic investment decisions will need to align with your sustainability/ESG strategy and those of your key customers.

Willingness to Pay

The willingness to pay for green premiums needs to be quantified and incorporated in your pricing. This can lead to a differentiated product offering based on products with varying carbon intensity.

Supplier landscape optimization

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Key takeaways

Calculating and reporting emissions will be fundamental steps to be compliant with the CBAM regulation.

Quantifying your carbon footprint creates a framework to evaluate emission-reducing investments and their associated costs, in line with your GHG strategy.

Your price setting strategy and where you play in the value chain will impact how you incorporate your carbon footprint in your pricing.

How will CBAM affect your current supplier landscape from a commercial risk and security of supply perspective?

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Developing a GHG footprint strategy enables you to incorporate the impact of the CBAM into your strategic decision-making

Companies should take the following steps to make informed strategic decisions based on the carbon footprint of their products

1. **Conduct a Carbon Footprint Assessment** of your products. This should include an analysis of the carbon footprint of the raw materials, manufacturing processes, transportation, and any other activities related to producing the product.

2. **Benchmark your carbon footprint against competitors.** This will help to identify areas where you are outperforming your competitors, as well as areas where you need to catch-up

3. **Develop a Carbon Reduction Strategy** that identifies the specific steps you need to take as a company to reduce your carbon footprint. This may include sourcing materials from suppliers with lower carbon emissions, improving the efficiency of the manufacturing process, and implementing environmentally-friendly transportation and logistics practices.

4. **Monitor and Report Progress** towards reducing your carbon footprint. This will help you to track the success of your carbon reduction strategy, as well as identify areas where additional action may be needed.

5. **Evaluate New Product Offerings:** When developing new product offerings, you should consider the carbon footprint of the product, including the carbon footprint of the raw materials, manufacturing processes, and transportation associated with the product. You should only introduce new products that align with your carbon reduction goals as defined in your carbon reduction strategy.

6. **Engage with Customers and value chain partners** to understand their expectations and concerns regarding the carbon footprint of your products. This information can be used to further refine your carbon reduction strategy and to develop a differentiated product portfolio that meets the needs of customers and value chain partners.

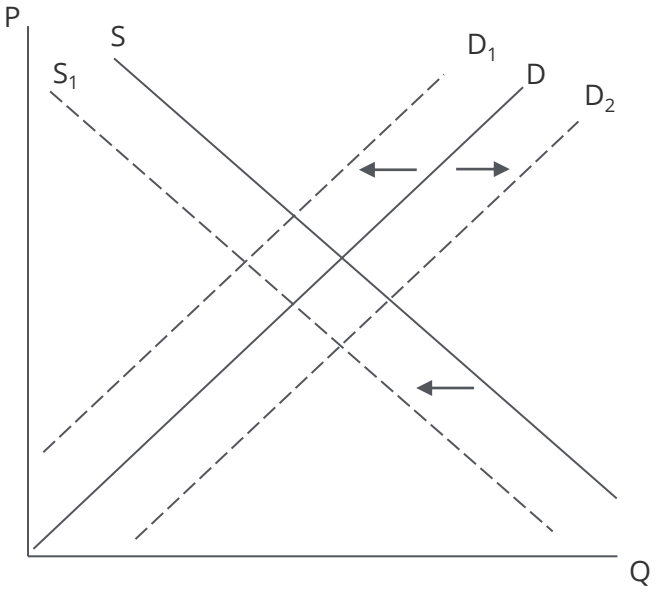
Takeaways

- There is value in understanding, addressing and transparently disclosing your GHG footprint and that of your supply chain
- Engage clients, value chain partners and stakeholders to optimise your offering to the different needs in the market, and the external environment
- Not incorporating your carbon footprint will open you up to hefty carbon levies, increased risk and exposure, reputational damage and complicate your access to financing

The EU ETS carbon price quantifies the cost of CBAM certificates

Major factors influencing the EU ETS carbon price[1], which defines the cost of CBAM certificates

The EU ETS carbon price is defined through an auction system in which the supply and demand of allowances influence the carbon price. This cap-and-trade system incentivises companies to reduce their emissions in the most cost-effective way possible.



Factors influencing supply of CBAM certificates

Decrease supply

ETS reforms as a result of political and societal pressure to accelerate the transition to net zero leads to withdrawal of allowances by the Market Stability Reserve in line with the EU green deal objectives, and thus lowers allowances in circulation. This results in a tightening of supply, which **firms (proactively) hedge**, by building up their reserves of carbon allowances.

Factors influencing demand of CBAM certificates

Increase demand

A strong **increase in energy prices** leads to power producers shifting to power generating technologies with higher carbon intensity, for which additional allowances need to be bought to cover their CO_2e emissions.

The **inclusion of additional sectors** (such as maritime transport in 2024), will increase demand for allowances, putting increased pressure on all sectors covered by ETS.

In times of **economic growth**, demand for allowances may increase, putting upward pressure on prices

Decrease demand

High volume **sustainable production projects** (such as green hydrogen steel) coming online, will indirectly lower carbon price by decreasing demand of high emitters for carbon allowances

During **economic downturns**, demand may decrease, leading to lower prices.

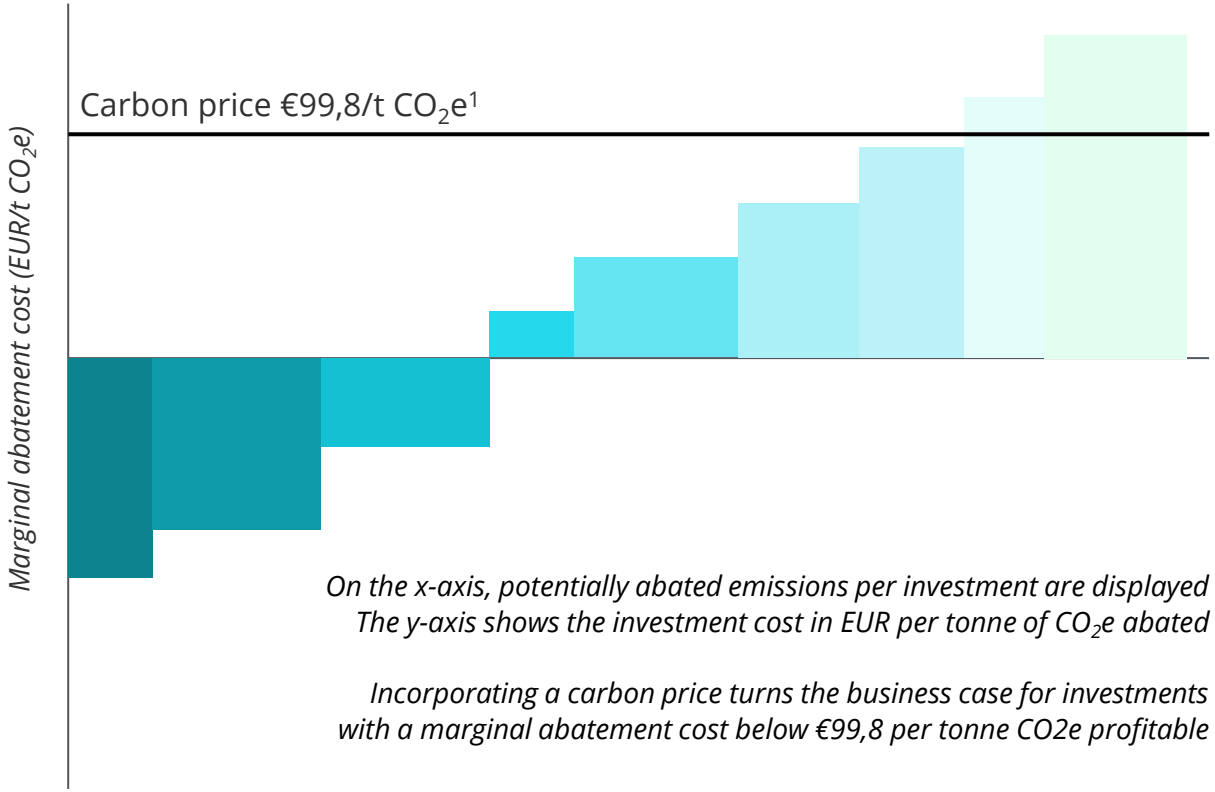
Takeaways

- Understanding the drivers of the ETS carbon price will enable you to define your purchasing strategy of CBAM certificates, taking into consideration your CBAM account always needs to cover 80% of your emissions
- This fluctuating carbon price should be integrated as a variable to quantify the cost of the carbon footprint of your products, and thereby serve as a determining factor in your strategic decision-making

[1]TCarbon price of €99,8 (12th of March 2023) - Ember

Strategic investments should aim to reduce the carbon footprint of your products

Marginal Abatement Cost Curve
Illustrative example, EUR/t CO_2e, Mt CO_2e



Incorporating carbon pricing into investment decisions

Establish potential pathways to net zero in line with your GHG footprint strategy: by identifying the investments that could eliminate emissions from your value chain, and plotting them in ascending order of cost per tonne of abated carbon on your Marginal Abatement Cost Curve.

Incorporate the carbon price of your products into your investment decisions: by explicitly including the current and future estimated cost of your carbon emissions in your profit and loss accounts of plants and business units. This financial analysis should inform your strategic decision-making by identifying specific opportunities to reduce emissions and the associated costs

Build decarbonisation business cases: investors are increasingly focused on the carbon exposure of your business activities, even offering differentiating interest margins linked to achieving specific sustainability objectives. With this in mind, it is important to explore green investments where there is increasing access to low-cost capital.

Tailor project-investment criteria to the transition to net zero: sustainable investments are often focused on the future, leading to longer payback periods. Extending your maximum payback period for these types of investments will enable you incorporate a longer-term perspective into your strategic decision-making, and mitigate the risk of stranded asset exposure.

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How will CBAM affect your current supplier landscape from a commercial risk and security of supply perspective?

How will CBAM impact your work

Tax manager

A new legal framework will need to be taken into consideration when analyzing the overall compliance of the company.

CEO (strategy & sustainability)

Incorporating a carbon price will alter the profitability of your investments, which will push you to redefine your strategic investment evaluations in line with your GHG strategy.

CFO (pricing & finance)

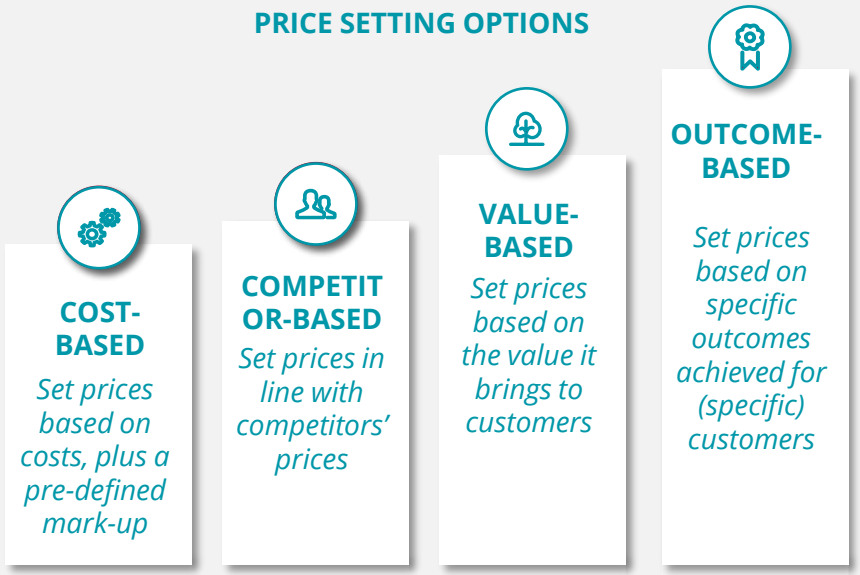
Developing a differentiated product offering with varying prices depending on the carbon intensity of your product enables you to profit from your sustainability efforts.

CPO (Chief Procurement Officer)

Screening the carbon footprint of sourced materials and engaging with suppliers will become a key activity when sourcing outside of the EU.

The pricing method you use defines how you include the Willingness to Pay for the emission intensity of your products

There are four main price setting options...



...with CBAM impacting your pricing depending on your selected price setting strategy

COST-BASED

Cost is the main driver setting your price, and should be kept as low as possible. The **trade-off between the ETS carbon price and price of the material** offered by each potential supplier should be constantly monitored to optimise your sourcing decisions.

Competitor-based

When matching your prices with competition, carbon intensity of your product should be in line with your peers, to avoid the CBAM levy eating away your mark-up**. A product with a lower carbon intensity than competitors will enable you to (partly) internalise the share of the cost that would otherwise have gone to the CBAM levy.**

Value- based

Your low-carbon product allows you to differentiate and increase value for customers. This enables you to charge a **green premium** to your customer, and **further increase your mark-up** by optimally leveraging the limited CBAM levy you will have to pay.

Outcome - based

Through a differentiated product offering you can provide multiple carbon intensity degrees of your products, tailored to the sustainability desires of your clients. The delicate **balance between the cost-based and value-based approach** will need to be found, correctly monitoring and calculating the CBAM levy in your different price settings.

Takeaways

- **When your price is based on costs, the effects of CBAM will be reactively incorporated**. The main focus will then lie on sourcing your materials as cost effectively as possible, by closely monitoring the carbon intensity of potential suppliers, the price they charge, and the ETS carbon price. The result of this constant monitoring exercise will be one of the main factors influencing your choice of supplier.
- **Value-based pricing will enable you to proactively leverage CBAM in your differentiated product**. By highlighting the sustainability of your product, the Willingness to Pay for your product increases, allowing you to charge a green premium to your clients.

Where you play in the value chain will influence how you incorporate the carbon footprint of your product into your pricing

Raw materials

Non-EU suppliers of raw materials to an EU-established company

Addressing the carbon footprint and reporting it properly will **reduce the risk and exposure to the CBAM**, which will enable you to secure attractive access to financing.

Lowering the carbon intensity of your materials, will additionally make **you more attractive to your European clients, by minimising the carbon levy they must pay.**

For materials sold at **pre-defined market prices**, you will be able to **claim the added sustainability value you create through an increased mark-up.**

Semi-finished product

EU manufacturers of semi-finished products that sell goods to downstream manufacturers

Due to the CBAM, the overall quality of GHG reporting will increase, making subsequent **claims of green products more credible**, and thus more **valuable** for customers (e.g. premium cars) and investors.

As an EU manufacturer of semi-finished products, you can **offer a differentiated product portfolio through products with varying carbon footprints tailored to your clients needs.**

An example related to the provision of steel-based semi-finished products for the automotive industry is to **offer the highest-grade sustainable steel to premium car manufacturers**, while providing steel with a **higher carbon intensity to value brands focusing on price competitive cars.**

Finished product

EU manufacturers of end-products

Manufacturers of low-carbon end-products can differentiate from competitors through the favorable carbon footprint of their goods.

The increased attention end-clients (B2B, B2C as well as B2G) pay to the sustainability characteristics of the products they buy has a **positive impact on their willingness to pay, allowing for a green premium to be priced in**. An important factor here is to **build the necessary credibility on the sustainability of the products offered.**

Takeaways

- **Ensuring your sustainability claims are credible and transparent** allows you to offer differentiated carbon footprint products. Carbon intensity data monitoring of your production processes, and those of your value chain partners, through an auditable third party verified system will play a defining role in adding value to sustainable priced products. **The right certification and quality stamps will avoid greenwashing and thereby ensure a level playing field**.
- Investors and banks will increasingly start considering inaction on decarbonisation as increasing the risk profile so **not acting is not an option**. By not acting your product will be assigned a worse embedded carbon footprint and thus subject to high CBAM levies. This will **make investors unlikely to invest in your company due to higher rates, or unwilling due to their own sustainability targets.**

Building a competitive advantage from the valorization of your carbon footprint

The four main areas where we see CBAM having an impact

Reporting Strategy

Good and integrated reporting with value chain partners (in line with ESG reporting from key suppliers and clients) ensures you pass the audits and avoid high import levies for your company and your suppliers

Strategic Investment Evaluation

Strategically evaluating where to invest in this carbon constraint world will be key in improving the GHG footprint of your products, and thereby reducing the impact of CBAM on your costs. Your strategic investment decisions will need to align with your sustainability/ESG strategy and those of your key customers.

Willingness to Pay

The willingness to pay for green premiums needs to be quantified and incorporated in your pricing. This can lead to a differentiated product offering based on products with varying carbon intensity.

Supplier landscape optimization

Your supplier landscape needs to be re-evaluated to assess the potential commercial impacts on your product portfolio. This should lead to a cost impact assessment on the affected portion of the supplier landscape, to be completed in relation to the CBAM Based on this assessment the affected stakeholder groups can decide if it is necessary to run a market exercise.

Key takeaways

Calculating and reporting emissions will be fundamental steps to be compliant with the CBAM regulation.

Quantifying your carbon footprint creates a framework to evaluate emission reducing investments and their associated costs, in line with your GHG strategy.

Your price setting strategy and where you play in the value chain will impact how you incorporate your carbon footprint in your pricing.

How will CBAM affect your current supplier landscape from a commercial risk and security of supply perspective?

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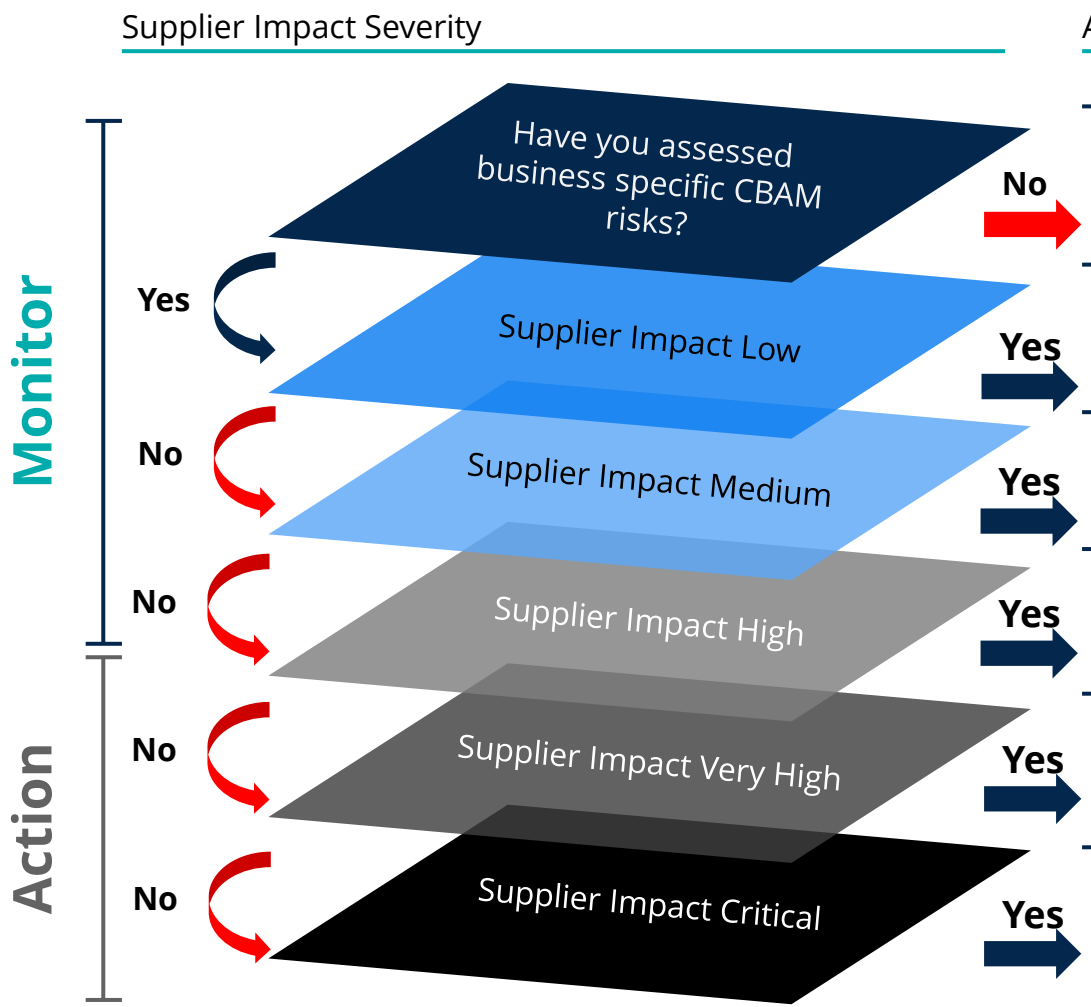
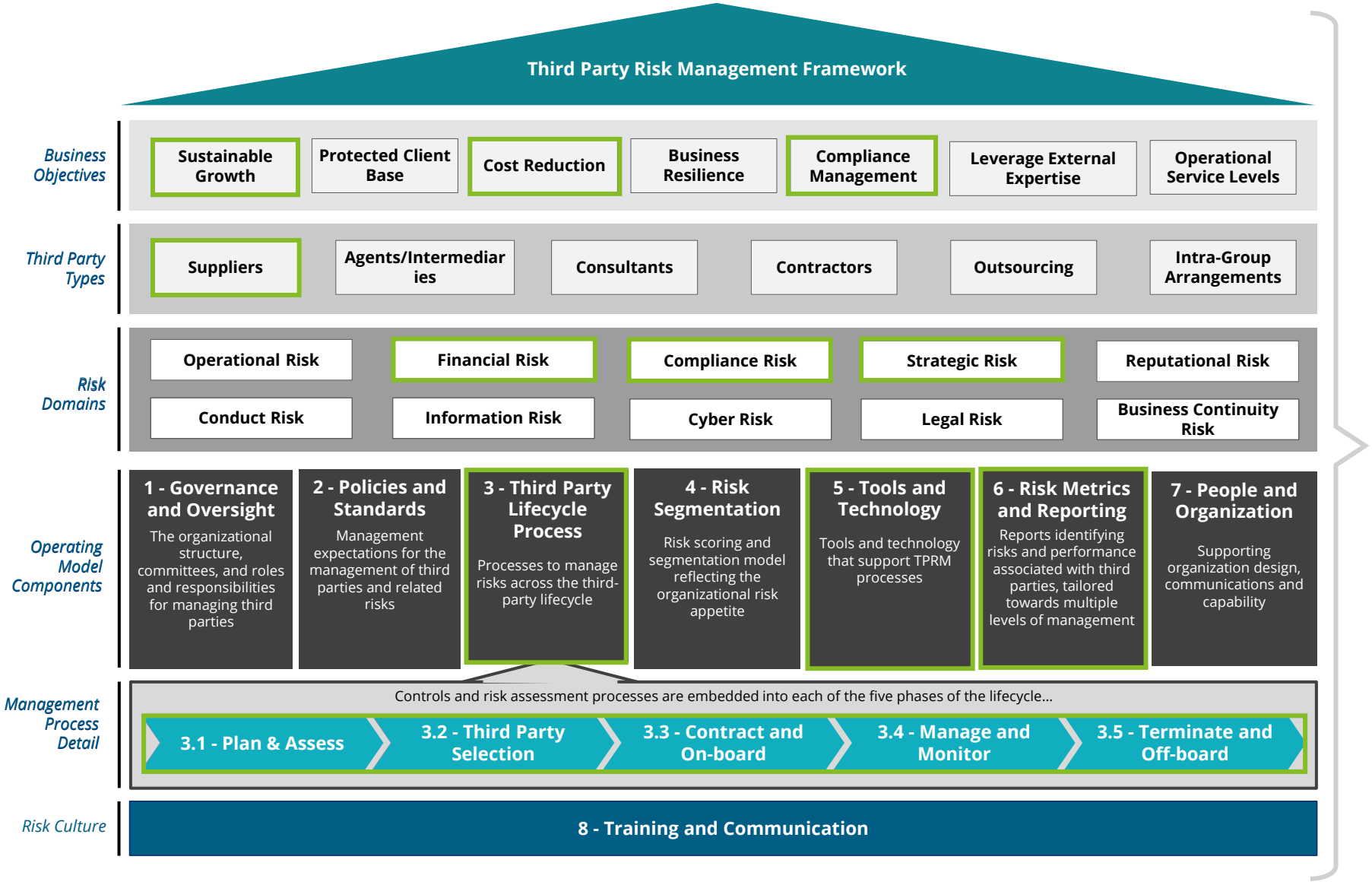
The impact of the CBAM on your procurement



Actions to Take

Assess	• Assess the risk on a specific business area from a tax, legal and commercial lens
Monitor	• Keep the risk on the business strategy radar & review regularly – no mitigation action required
Plan	• Keep the risk on the business strategy radar and review regularly – prepare a risk mitigation strategy when you have time
Action	• Tax assessment by the supplier on product portfolio • Supply market analysis • Defined risk mitigation strategy
Fast Action	• Tax assessment of supplier product portfolio • Supply market analysis for alternative supply • Commercial impact analysis • Defined risk mitigation strategy
Immediate Action	• Tax assessment of supplier product portfolio • Legal assessment of required contractual language • Market exercise (RFx) for alternative supply • Commercial impact analysis • Defined risk mitigation strategy

The influence of CBAM on your third party supplier risks



Evaluate the impact of CBAM on your risk framework

Due to CBAM, your engagement with suppliers will change.. It is crucial to **scrutinise your current approach to Third Party Management (TPM).**

A significant part of TPM is managing the risk inherent in your third party relationships. Our Third Party Risk Management (TPRM) Framework on the left highlights the business objectives of using third parties, the risk domains activated by using third parties, and the operating model components that must be in place for effective third party risk management. From a CBAM point of view, **special attention** should be given to the highlighted 'areas of focus'.

As indicated, special attention should be given to **third party lifecycle management** as the GHG component will significantly influence your decisions with regards to **attracting and keeping on board** third-parties fit for your organisation. Finally, your tools and reporting standards will naturally need to evolve with the requirements set by CBAM.

Area of Focus

Your first steps in the CBAM supply chain transformation

Map the carbon intensity of your current supplier's pool

Consolidate your suppliers of materials that are in scope of CBAM. Subsequently, create an overview of the carbon intensity for the products (to be) imported.

Assess your suppliers' capabilities to report timely and accurately

Engage with your suppliers of materials that are in scope of CBAM in order to assess their capabilities to accurately and timely report according to specific protocol.

Evaluate the performance of your suppliers against industry benchmarks

How do your current suppliers perform from both a GHG and capability perspective when compared when benchmarked against industry?

→ Terminate, enforce a corrective action plan or continue as-is?

NOTE

- Given ISSB Scope 1, Scope 2 and Scope 3 **disclosure obligations**, an assessment of your suppliers' reporting capabilities should be considered regardless of CBAM.
- CBAM performance evaluations against industry benchmarks should be executed on **a frequent basis** as part of your **strategic monitoring activities**.

Close engagement with your suppliers is crucial to gathering reporting data and driving down the carbon footprint of sourced materials

Become a champion in supply chain transformation by growing together with your (key) suppliers

Observer	Explorer	Navigator	Practitioner	Champion
No requirements for your supplier	GHG reporting requirement for key suppliers	GHG reporting requirement for all suppliers	Collaborate with your key suppliers in setting GHG reduction targets	Collaborate with all suppliers in setting GHG reduction targets

Revisit your procurement procedures by incorporating CBAM monetary impact

Is your procurement tool capable of incorporating CBAM as a decision factor?

Are you leveraging the right GHG cost models in order to calculate the financial impact for the complete contract duration?

Watch out for anti-circumvention rules: are you bringing any change in the pattern of trade in goods which is not economically justified but only has the aim of circumventing obligations under CBAM?

Takeaways

- Evaluate how CBAM will impact your **risk appetite**. Is your current Third Party Risk Management framework **mature** enough to handle the **increased importance of the GHG component?**
- If required to source outside of Europe, how will you engage with your suppliers? How do you **stimulate GHG reduction targets**? What **targets are achievable**?
- **Supplier questionnaire fatigue**: Are you bundling your supplier risk inquiries and CBAM inquiries into **one consolidated questionnaire**?
- Are you leveraging the **right tools and models** in order to correctly incorporate the **financial impact of CBAM** into your supply chain decisions?

Case study

Company Journey in practice – A steel industry manufacturer

Steel industry manufacturer

In this company journey, we focus on a steel wire manufacturer. Through this journey, the implications of the (incremental) introduction of the CBAM is illustrated in concrete steps to be undertaken by the company throughout time.

Before start of transitionary period (October '23)

Internal impact assessment

- Map your steel-related imports and their origin countries, with a focus on data availability and their respective carbon footprint
- Plot local ETS systems and corresponding carbon prices for each of the importing countries
- Analyse your value at risk, what is the potential levy you would be exposed to?

Start evaluation of supply chain

Inquire about the carbon intensity of suppliers and reach out to inform and check readiness on data availability to be compliant on reporting

Start transitionary period (October '23)

GHG reduction strategy with integrated strategic investment evaluations

- Develop a Carbon Reduction Strategy accompanied with the necessary strategic investments. Due to the long project investment cycles in the steel industry, lock-in risks need to be mitigated by acting now.
- Map investments you can do on your own, but also start discussions with value chain players on joint-ventures

Continuous improvement of supply chain

- Engage with your suppliers to align on carbon reduction objectives, while working in close collaboration through inter-company tools sharing the most recent emission data
- Identify weak links in the supply chain and target new partnerships that fit within your sourcing strategy

Start full scope CBAM (January '26)

Engage with Customers and value chain partners

- Make sure you have mapped your customer segments according to their willingness to pay for a green premium, to have a good view on the sectors where the end-consumer has a keen interest in green products.
- These insights should be used to differentiate your product offerings with tailored pricing approaches

New product offerings

Introduce new products in line with your carbon reduction goals as defined in your carbon reduction strategy, while building on your customers' needs (e.g. green hydrogen steel)

Reporting requirements

- Identify relevant in-scope NACE-codes and decide if you will outsource report declaration to certified clearance agents, or apply to become a national authorized declarant
- Register all foreign installations like (e.g., mines and furnaces) in the future EU CBAM registry
- Appoint indirect customs representatives in the EU
- Set up an overarching monitoring system with all the embedded emissions for the development of the imported products

Reporting requirements

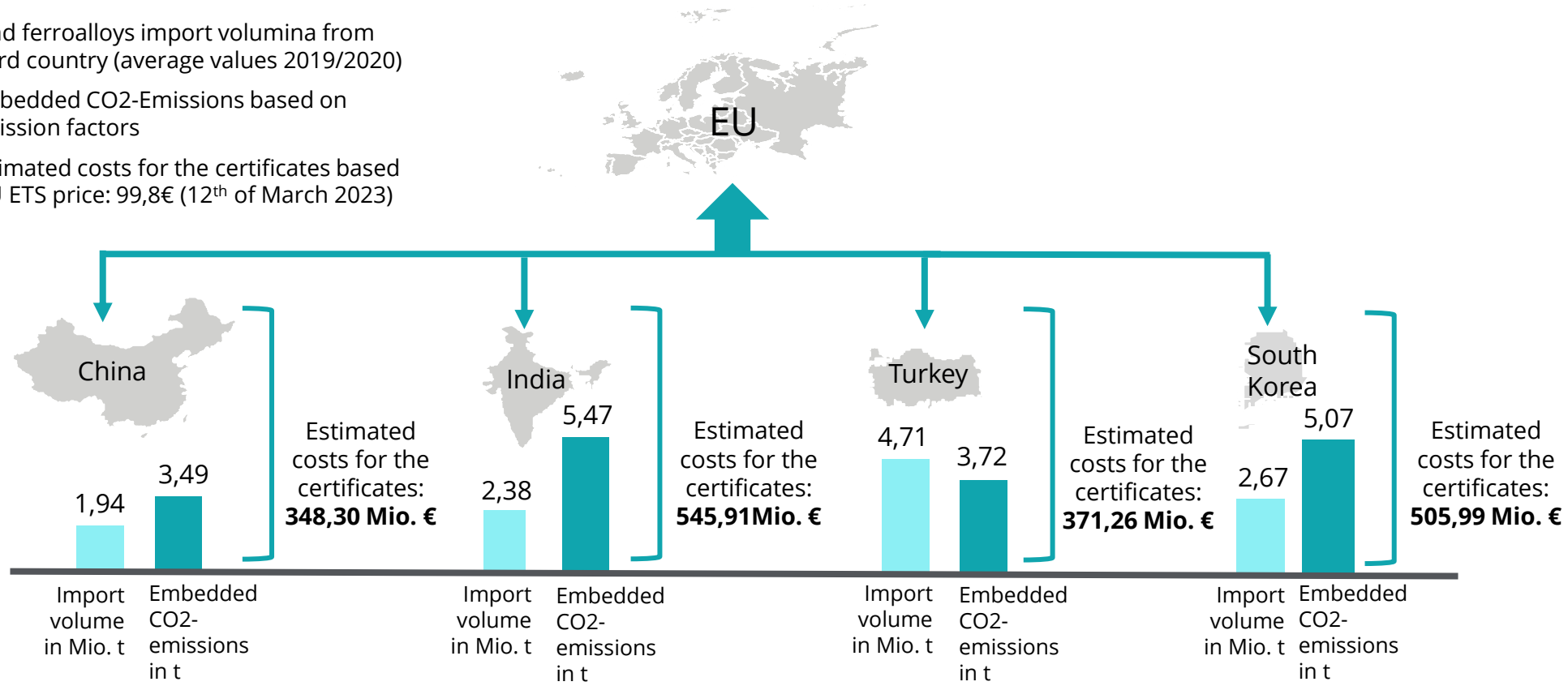
- Continuously monitor emissions to track the success of your carbon reduction strategy, as well as identify areas where additional action may be needed.
- Reporting (in) direct emissions generated by imported products on a quarterly and annual basis.

Case study

The potential impact of CBAM on the steel industry

Assumptions:

- Raw iron, steel and ferroalloys import volumina from the respective third country (average values 2019/2020)
- Calculation of embedded CO2-Emissions based on national CO2- emission factors
- Calculation of estimated costs for the certificates based on the current EU ETS price: 99,8€ (12th of March 2023)



Takeaways

- From the main steel exporters to the EU, **China and Turkey provide steel with the lowest carbon footprint**
- In a baseline scenario where no abatement measures are taken to reduce the carbon intensity of imported steel, **imports will come at a significant additional cost**
- Due to the long project-investment cycle of steel production assets, **you have to act now to mitigate the impact of the CBAM levy in 2026**

An industry perspective on the impact of CBAM[1]

Steel industry

CBAM stands very high on our agenda. As a result, we are currently actively looking into the effect of CBAM on our cost structure and how we can mitigate its impact.

Mining industry

The carbon footprint of raw materials (sourced outside of the EU) that relate to batteries is substantial, we must work towards GHG reduction through innovation and partnerships. This way we can limit the impact of CBAM once the scope will be expanded to these material .

Petrochemical industry

The embedded carbon footprint will become an additional product differentiator and will become a driver of our value proposition towards our clients.

Aluminum industry

The Carbon Border Adjustment Mechanism underscores the need for accurate emissions reporting. However, the complexity of our supply chain and lack of standardized methodologies have made it challenging to accurately measure our carbon footprint.

[1]Testimonials are based on client conversations, and do not exhaustively summarize industry sentiments related to CBAM

Next steps | We have the capabilities to support you along the way

October 2023
Start of transition period

2026
Start of full scope

Execute Internal impact assessment

- Monitor recent **CBAM policy developments**
- Identify imports of **products in scope**
- Map **origin and carbon footprints** at a product procurement and company level to assess potential financial exposure
- Assess **transformation** (organisation, systems, etc.) needs

Ensure reporting compliance

- Define **data gathering methodology and process** to develop streamlined data asks to suppliers
  - Structured supplier onboarding methodology
  - Monitoring for existing suppliers methodology

Develop GHG reduction strategies and sustainable product offerings

- Develop **sustainability and GHG reduction strategies**
- **Position your company strategically** within ecosystem and value chain
- Set-out **strategic decarbonization roadmap** with interim milestones
- Define **data strategy** for new sustainable business models
- Refine **commercial strategy** to develop and price new product offerings

Optimize supplier landscape

- Incorporate key drivers of **supply chain partnerships** in supply chain policy to facilitate supplier interaction
- Coordinate **data requirements** from suppliers on CBAM with existing requirements (anti-corruption, anti-bribery, GDPR, etc.) and train procurement to deal with this
- Develop **supply risk profiles** and corresponding risk mitigating strategies

Report and monitor CBAM requirements

- Support in **emission calculations and submitting CBAM reports**
- **Develop and adjust existing ERP-systems** to:
  1. Automate calculations;
  2. Pre-fill CBAM reports;
  3. Ensure high-quality flow of data insights to relevant decision makers

Next steps | Deloitte contacts

October 2023
Start of transition period

2026
Start of full scope

Execute Internal impact assessment

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