

CLIMATE CHANGE

21/2022

Interim report

Carbon Border Adjustment Mechanism

Administrative structure and implementation
challenges

by:

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publisher:

German Environment Agency

CLIMATE CHANGE 21/2022

Ressortforschungsplan of the Federal Ministry for the
Environment, Nature Conservation and Nuclear Safety

Project No. (FKZ) 3720 42 504 0

Report No. FB000825/ENG

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Imprint

Publisher

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 [umweltbundesamt](https://twitter.com/umweltbundesamt)

Report performed by:

adelphi research gGmbH
Alt-Moabit 91
10559 Berlin
Germany

Report completed in:

March 2022

Edited by:

Sections Economic Aspects of Emissions Trading, Monitoring, Evaluation and Emissions
Trading Legal Office
Claudia Gibis, Doris Tharan, Nadine Schumacher

Publication as pdf:

<http://www.umweltbundesamt.de/publikationen>

ISSN 1862-4359

Dessau-Roßlau, May 2022

The responsibility for the content of this publication lies with the author(s).

Abstract: Carbon Border Adjustment Mechanism. Administrative Structure and Implementation Challenges.

The European Commission's (EC) proposed Carbon Border Adjustment Mechanism (CBAM) is meant to mirror the carbon price of the EU Emissions Trading System (EU ETS) for several imported goods. While the CBAM can rely on certain aspects of the EU ETS regarding its costs and compliance obligations, it also requires its own procedures and administrative structure. The EC's proposal outlines a decentralised approach that largely relies on authorities in Member States for essential functions and enforcement, with oversight and coordination at the European level. This report details the EC's proposed administrative structure as well as its implications for Member States and key challenges going forward. The main challenge for the implementation of CBAM is the distribution of responsibilities between importers, third-country installations, verifiers, and authorities to ensure effectiveness of the instrument and a reliable monitoring, reporting and verification system. It is further crucial to find an appropriate balance between centralised and decentralised administrative structures, using existing capacities and providing harmonised and efficient procedures. The timeline for implementation needs to allow for the drafting of clear and robust implementing acts as well as sufficient time for involved firms and authorities to implement CBAM.

Kurzbeschreibung: CO₂-Grenzausgleichsmechanismus. Verwaltungsstrukturen und Herausforderungen in der Umsetzung.

Der von der Europäischen Kommission (EC) vorgeschlagene CO₂-Grenzausgleichsmechanismus (CBAM) soll einige Importgüter mit einem CO₂-Preis belegen, der die Bepreisungswirkung unter dem EU-Emissionshandelssystem (EU ETS) spiegelt. Der CBAM kann dabei zum Teil auf bestehende Elemente des EU ETS bezüglich der Höhe des CO₂-Preises und der Compliance-Anforderungen zurückgreifen. Er benötigt jedoch auch neue Prozesse und Verwaltungsstrukturen. Die EC schlägt einen dezentralen Ansatz vor, der größtenteils auf Behörden der Mitgliedstaaten für die Umsetzung des CBAM zurückgreift. Die EU-Ebene nimmt hier nur eine Aufsichts- und Koordinierungsfunktion wahr. Der Bericht beleuchtet die vorgeschlagenen Verwaltungsstrukturen im Detail sowie ihre Bedeutung für die Mitgliedstaaten und Herausforderungen in der Umsetzung. Die größte Herausforderung in der Umsetzung des CBAM liegt in der Verteilung der Verantwortlichkeiten zwischen Importeuren, Drittstaatenanlagen, Verifizierern und Behörden, um ein effektives CBAM-Instrument und ein verlässliches System für Monitoring, Berichterstattung und Verifizierung zu errichten. Es ist weiterhin wichtig, zentrale und dezentrale Elemente der Verwaltung so auszubalancieren, dass bestehende Kapazitäten genutzt werden und gleichzeitig ein effizienter, harmonisierter Prozess geschaffen wird. Der Zeitplan der Umsetzung sollte gewährleisten, dass die Erarbeitung klarer und robuster Durchführungsrechtsakte ermöglicht wird und betroffene Unternehmen und Behörden ausreichend Zeit für die Umsetzung des CBAM haben.

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List of abbreviations

AVR	Accreditation and Verification Regulation
CBAM	Carbon Border Adjustment Mechanism
CN	Combined Nomenclature
EC	European Commission
EU	European Union
EU ETS	EU Emissions Trading System
FTE	Full-time equivalent
HS	Harmonised System
MRR	Monitoring and Reporting Regulation
MRV	Monitoring, reporting, and verification

1 Introduction

The European Commission's (EC) proposed Carbon Border Adjustment Mechanism (CBAM) is a novel instrument aimed at safeguarding the European Union's (EU) ambitious climate goals without undermining global climate goals. Rising allowance prices in the EU Emissions Trading System (EU ETS) create an increasingly unequal playing field for the EU's emissions-intensive industries that compete in global markets, increasing the risk of carbon leakage over this decade under a more stringent reduction target of at least 55% below 1990 levels. The CBAM is meant to address this risk by mirroring the costs of the EU ETS for imported goods from industrial materials that are most vulnerable to leakage and the electricity sector, which is increasingly connected to neighbouring countries without comparable carbon pricing (Sandbag, 2020). In targeting leakage risks, the CBAM serves as an alternative to the main existing measure of leakage protection, granting allowances for free to the most exposed industries to reduce their costs of compliance with the EU ETS.

While the CBAM mirrors certain aspects of the EU ETS regarding its costs and compliance obligations, it requires its own procedures and administrative structure. In its July 2021 proposal for a CBAM regulation (EC, 2021a), the EC outlines a decentralised approach that largely relies on authorities in Member States for essential functions and enforcement, with oversight and coordination at the European level. At the time of writing this report, the negotiations on the proposed CBAM regulation are still ongoing. The administrative structures and procedures in the legislative text which is adopted finally might differ from the original proposal. This paper details the EC's proposed administrative structure as well as its implications for Member States and key challenges going forward. The second chapter outlines the roles and responsibilities of public authorities and stakeholders, while the third chapter highlights the relationships between these authorities and stakeholders. The paper concludes with the cost implications and administrative demands of the EC's proposal along with key challenges and questions going forward.

2 Roles and responsibilities of authorities and stakeholders

Administration of the CBAM and enforcement of annual compliance obligations involve a number of public authorities and stakeholders both within the EU and in third countries that export the covered products to the EU. According to the EC's proposal, firms would need to register as "**declarants**" that are authorised to import products covered by the CBAM and submit annual declarations to national "**competent authorities**" designated by Member States, from whom they would purchase "**CBAM certificates**" reflecting the embedded emissions of the goods they imported over the previous calendar year. National **customs authorities** act as the first point of enforcement when CBAM-covered goods reach the EU. The **EC** performs oversight of the border and compliance processes and acts as a central administrator, among other functions. Competent authorities, customs authorities, and the EC together constitute the primary public authorities charged with administering and enforcing the CBAM.

Other key actors include:

- ▶ **Operators of installations in third countries** that export their goods to the EU for import by an authorised declarant or provide input goods for complex goods regulated under the CBAM.
- ▶ Independent **verifiers** that verify the embedded emissions of covered goods.
- ▶ **National accreditation bodies**, which play a leading role in the accreditation of emissions verifiers.

The responsibilities of each authority and stakeholder are detailed in this section. During the transitional phase from 2023 to 2025, authorised declarants face no financial obligations under the CBAM but are required to report the volume and embedded (direct and indirect) emissions of the products they import along with any carbon price due in the country of origin quarterly.

2.1 Competent authorities

According to the EC's proposal, each Member State will designate a competent authority to be the main institution responsible for the implementation of the CBAM. This designation is analogous to the EU ETS and other directives or regulations; in the case of EU ETS, this will be typically an agency or ministry focused on environment, energy, or climate. It is likely that the competent authority for many Member States for the CBAM will be the same as the competent authority responsible for the EU ETS, as the tasks require similar capacities.

The EC divides the CBAM-related tasks of the competent authority into different functional areas (5.2.1.9 in the CBAM Impact Assessment. See also Section 4.1 below. The task areas defined in the Impact Assessment may not fully capture the responsibilities of the competent authority as defined by the legal text.):

- ▶ Authorising declarants (Art 17, 25) and account opening (Art 16):
 - Authorising declarants (declarants must be authorised before they can import a good covered by the CBAM into the EU, per Article 17 and 25 (1)).^{1,2}

¹ All references of articles refer to the EC's Proposal for a Regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism, COM/2021/564 final.

² While the EU ETS does not involve similar authorisation procedures, the CBAM authorisation is comparable to the request of an EORI (Economic Operators' Registration and Identification) number that

- Setting up an account for each declarant in the national registry (Art 16).
- ▶ Receiving and reviewing CBAM declarations; calculation and, if necessary, adjustment of CBAM certificates (Article 19); enforcing surrender of CBAM certificates each year (Article 22).
- ▶ Enforcement and handling disputes with declarants:
 - Imposing penalties for non-compliance of declarants (Article 26), including during the transitional phase on those who fail to report their direct and indirect emissions (Article 35, (4)) quarterly.
 - Hearing of declarants, handling of appeals and legal pursuits.
- ▶ Establishing and maintaining an IT system, including four main tasks:
 - Establishing and maintaining a national registry containing all declarants, their CBAM account numbers, and a history of transactions concerning CBAM certificates (Article 14). The information above in the registry should be kept confidential (Article 14 (3)).
 - Selling CBAM certificates (Article 20); repurchasing excess certificates from authorised declarants (Article 23).
 - Ensuring that the number of CBAM certificates on each declarant's account equals at least 80 percent of the embedded emissions in goods that the declarant has imported since the beginning of the calendar year (Article 22 (3)).
 - Cancelling by 30 June CBAM certificates in declarants' accounts that were purchased in the year before the previous calendar year (Article 24).

2.2 Customs authorities

The national customs authorities carry out controls on imported goods in accordance with Article 46 of Regulation No 952/2013 (Article 25 (3)). They are the first point of enforcement of the CBAM regulation and responsible for allowing the importation of CBAM-covered goods. Goods can only enter the single market if a declarant is authorised by a competent authority (Article 25 (1)).

The customs authority is responsible for communicating information on importation to the competent authority of the Member State where the declarant is established and has obtained authorisation, including its identification number (EORI number), CBAM account number, the classification number of the CBAM-covered goods, the country of origin of the goods, and the quantity of goods (Article 25 (2)). The EC may specify further information to be communicated by customs authorities to competent authorities in further implementing acts, as well as the timing and means of the exchange (Article 35 (5)).

importers to the EU need to import goods (see https://www.zoll.de/EN/Businesses/Movement-of-goods/Import/Duties-and-taxes/EORI-number/Requesting-EORI-number-amending-operator-particulars/requesting-eori-number-amending-operator-particulars_node.html).

2.3 Declarants

In the EC's proposed regulation, importers are referred to as "declarants" and are required to apply for authorisation with the competent authority where they are established (Article 5 (1)).³ This is a precondition to import any of the goods covered by the CBAM regulation, which are defined using the EU's classification system at customs, the Combined Nomenclature (CN). The CN is based on the international Harmonised System (HS), which is applied in most countries. Declarants are required by EU customs regulation to be legally established in the EU to lodge a customs declaration, which is often done through brokers acting as customs representatives.

By 31 May each year, declarants are required to submit what is known as a "CBAM declaration" to the competent authority that authorised them (Article 6). The CBAM declaration contains the total quantity of each type of good they imported over the previous calendar year, the total embedded emissions of the goods⁴, and the total number of CBAM certificates they are required to surrender, minus any reduction for a carbon price that was already paid in the country where the goods were produced and an adjustment to account for allowances allocated free of charge to EU installations producing CBAM goods. CBAM certificates must be surrendered by 31 May of each year for goods that were imported the previous calendar year and their corresponding emissions (Article 22). Additionally, at the end of each quarter declarants must ensure that the number of CBAM certificates in their accounts with their respective national registries equals at least 80 percent of the embedded emissions in goods they have imported since the beginning of the calendar year (Article 22 (2)).

Declarants are required to ensure that the total embedded emissions referenced in their annual CBAM declarations were independently verified by a verifier that is accredited by a national accreditation body under existing EU regulations or the CBAM regulation (Articles 8 and 18). If declarants are claiming a reduction in their compliance obligations based on a carbon price that the goods already incurred in the country of origin, they must maintain independently certified records documenting those costs, along with proof of actual payment. This carbon price must not have been subject to an export rebate or any other form of compensation on exportation (Article 9 (2)). It therefore falls to the importer, not the producer in a third country that is exporting the good, to ensure the reported embedded emissions are independently verified and any carbon costs the goods faced in the country of origin are documented. In addition to records on carbon costs incurred in the country of origin, declarants must maintain records on verified emissions of the goods they import. These records must include the identification of the specific installation(s) where the goods were produced. In the case of complex goods, information must also be provided on the installations where the input materials (precursors) consumed in the production process were manufactured, as well as contact information of the operator of the installation (Annex V 2 (k)).

During the transitional phase from 2023-2025, declarants face no obligations to purchase and surrender CBAM certificates, but they do face reporting obligations. For each quarter of each year, they are required to submit a "CBAM report" detailing the quantity of each type of good they imported, the actual total embedded direct emissions, the actual total embedded indirect emissions, and the carbon price due in the country of origin for the goods (Article 35). In contrast to the CBAM declarations of the operational phase, emissions reported in the CBAM

³ Importers of electricity do not necessarily require authorisation by the competent authority but can automatically be authorised by being allocated transmission capacity in the electricity grid (Article 5 (2)).

⁴ Not only direct emissions from the production process but also emissions from input products of complex goods are considered. See section 4.2 for a discussion of the calculation process of embedded emissions.

reports in the transitional phase do not have to be verified according to the draft regulation. While declarants are required to report on indirect emissions of the goods they imported during the transitional phase, the EC's proposed regulation does not currently place compliance obligations on indirect emissions during the operational phase starting in 2026.⁵

2.4 Operators of installations in third countries

Installations operating in third countries and exporting their goods to the EU for import by declarants face no formal obligations under the EC's proposed regulation. However, in order to be able to sell goods to the EU they have to provide the declarant with product-specific information on embedded emissions including detailed records of the information needed for their calculation (Article 7 (4)) and a verification report by an accredited verifier (Annex V (2)).⁶ This holds not only for installations producing final goods regulated under the CBAM proposal but also producers of inputs into regulated complex goods, e.g., crude steel used in finished steel products.

Operators can voluntarily register in a central database to be maintained by the EC that includes their address and contact details, the location of their installations, and the main activities of those installations (Article 10). The process is voluntary as the main point of regulation of the CBAM is the importing firm, i.e., the declarant. Third-country installations cannot be regulated as they are outside the jurisdiction of the EU. Registering in the database requires operators in third countries to have the emissions of the goods produced at their various installations independently verified by an accredited verifier and to keep records of those emission reports, which the operator is allowed to disclose to a declarant.

2.5 European Commission

In the proposed regulation, the EC will act as “central administrator” to maintain an independent transaction log of CBAM certificate transactions. It is also charged with ensuring coordination of the registries that are maintained by competent authorities (Article 15 (1)). The EC further carries out controls on recorded transactions to identify any irregularities (Article 15 (2)). Irregularities could relate to fraudulent behaviour as well as accidental mistakes in the national registries.

In the same vein, the EC is responsible for addressing circumvention of the CBAM (Article 27). Circumvention refers to a change in trade patterns mainly driven by an attempt to avoid CBAM regulation, for instance through the importation of slightly modified products that do not fall under the CBAM regulation. The proposed regulation does not specifically address the potential for resource shuffling, whereby operators in third countries route their most efficient production to the EU to reduce CBAM compliance obligations while dispatching more emissions-intensive production to other markets.

Further CBAM-related tasks of the EC include:

- Maintaining a central database of operators in third countries, parts of which will be publicly available (e.g. contact details and location of operator), though operators can choose to not have this information public (Article 14 (4)).

⁵ Article 30 (2) asks the EC to present a report before the end of the transitional period assessing the possibility to extend the scope of CBAM to indirect emissions.

⁶ Some of these data (e. g. production data) might be confidential.

- ▶ Determining the price of CBAM certificates based on the average closing prices at EU ETS allowance auctions each calendar week and publishing this information (Article 21).
- ▶ Establishing common CBAM-related risk criteria and standards for national customs authorities (Article 25 (3)).

The EC is also charged with adopting a host of implementing acts that become necessary for the establishment and harmonisation of CBAM procedures. This includes key matters such as the methodology for reducing CBAM obligations based on carbon costs in the country of origin (Article 9 (4)), specifying conditions for control and oversight of verifiers accredited through national accreditation bodies (Article 18 (3)), and setting detailed rules for determining the embedded emissions of covered goods (Article 7 (6) and Annex III).

2.6 Emissions verifiers and national accreditation bodies for verifiers

Declarants must ensure that the emissions attributable to the goods reported in their annual CBAM declarations were independently verified by an EU ETS verifier or by a verifier with a CBAM accreditation (Article 18 (1) and (2)). While the compliance obligation to report the number of total embedded emissions falls to the importers (declarants), the emissions that are subject to verification are those that result from production processes at third-country installations. Therefore, much of the work of verification will occur outside the EU. The verification process outlined in Annex V (2) includes two steps. The first is the verification of emissions at the installation level. The second step consists of verifying the calculation of product-level embedded emissions. The calculation includes breaking down installation-level emissions to single products and for complex goods requires product-specific emissions from separate verification reports of input products. The product-specific rationale of the CBAM, hence, requires that the verification process for an installation is more comprehensive than the existing process under the EU ETS for which only installation-specific verified emissions are needed. Challenges of this process are discussed in section 4.2 of this report.

In contrast, if a declarant indicates carbon costs incurred in third countries in the CBAM declaration, these costs will require documentation “certified by an independent person”, but the qualifications of this person are to be specified in future implementing acts and do not necessarily involve an accredited verifier (Article 9 (4)).

Verifiers must be accredited in accordance with the existing regulation on verification of emissions verifiers for the EU ETS, the Accreditation and Verification Regulation (AVR, also known as Implementing Regulation 2018/2067), which sets harmonised standards and procedures for verifiers along with the process of accreditation. The CBAM regulation additionally sets out principles of verification, such as mandatory site visits of third-country installations except under certain conditions, which resemble obligations set out in existing EU regulation on emissions verification. It also includes some specific content requirements of verification reports, including identification of the specific installation where goods were produced and the quantities and types of declared goods (Annex V).

Under the EU ETS, the accreditation of emissions verifiers is carried out through national accreditation bodies of Member States established through EU regulation 765/2008.⁷ The regulation already stipulated in 2008 that each Member State appoints a single national accreditation body that is not-for-profit, independent and performs accreditation of any kind

⁷ Accredited verifiers are legal entities, but Implementing Regulation 2018/2067 also lets Member States allow the certification of natural persons as verifiers through a national authority other than the national accreditation body, but this is rarely practiced (EC, 2016).

with authority derived from the State. To avoid cherry picking or “forum shopping”, verifiers can only submit a request for accreditation in the Member State that they are legally established in, although Member States without specialised EU ETS accreditation services can use the accreditation services of another Member State (EC, 2017). Also, under the AVR, verifiers accredited by a national accreditation body in one Member State are generally recognised and able to carry out their duties in all Member States. National accreditation bodies maintain a database of verifiers they have accredited.

All verifiers in the EU that are already accredited under the existing AVR can act as verifiers under the CBAM regulation (Article 18 (1)). The CBAM regulation also allows national accreditation bodies to accredit additional verifiers by attesting to the capacity of the verifiers to fulfil the verification principles in Annex V and perform the obligations on measuring embedded emissions of covered goods. The proposed regulation does not exclude verifiers of non-EU countries to apply for accreditation.⁸ The EC’s CBAM proposal does not mention the possibility of a declarant’s using an emissions report submitted to fulfil an installation’s obligations under regulation or legislation in the country of origin, unless the report was completed in accordance with the CBAM regulation and related implementing or delegated acts and existing EU regulations on emissions verification.

While it is clear from the proposed CBAM regulation that annual CBAM declarations during the operational phase starting 2026 must include verified data on embedded emissions, the section on reporting obligations during the transitional phase from 2023-2025 does not explicitly mention verification requirements.

⁸ While this is rather an exception, there are already accredited third-country verifiers under the EU ETS, e.g., for emissions from Chinese airlines covered by the EU ETS. See https://www.cenews.com.cn/company/qypic/201708/t20170821_847610.html.

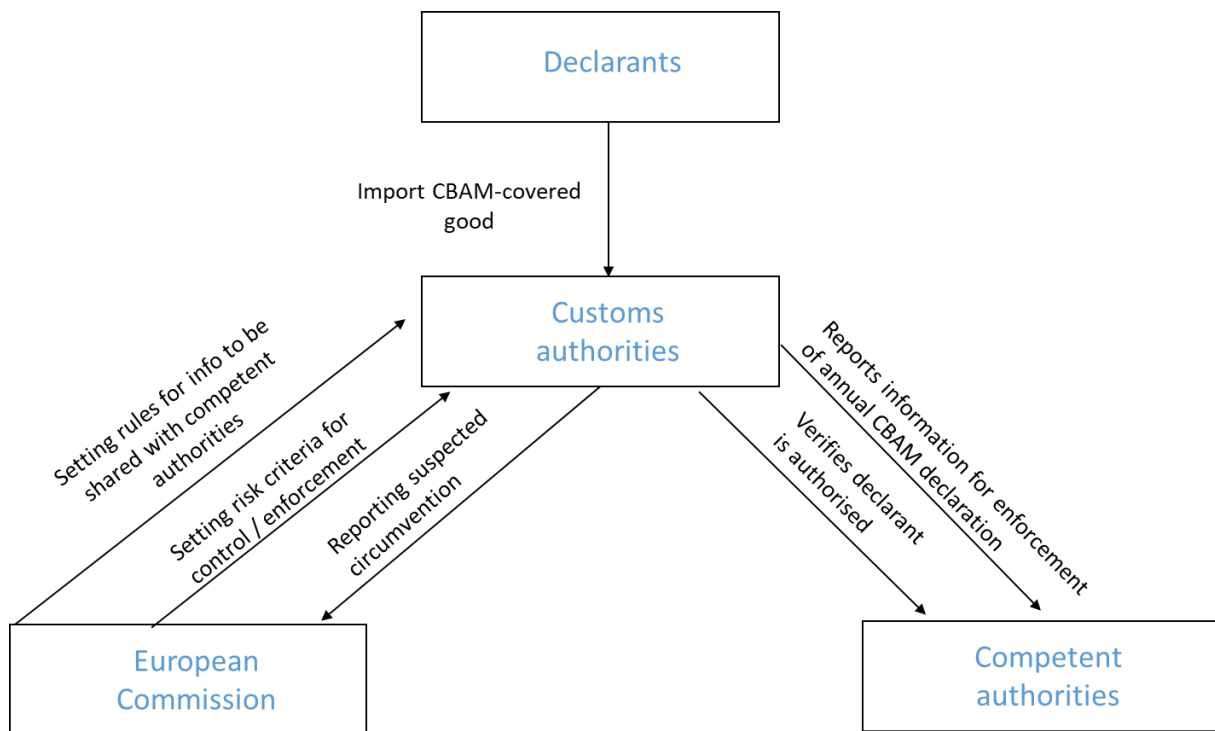
3 Key interactions and relationships between authorities and stakeholders

The successful implementation of the CBAM relies on extensive coordination and interactions between the authorities and stakeholders highlighted in the first chapter. After identifying the major roles and responsibilities of these authorities and stakeholders in the previous chapter, this chapter explores the key interactions and coordination demands between them. The interactions between the three main public authorities involved with CBAM administration – national competent authorities, national customs authorities, and the EC – are depicted in three separate figures in this chapter. While those three figures depict interactions that occur within the EU's borders, a fourth figure in this chapter depicts the key extra-territorial process in CBAM implementation: emissions verification of operators and documentation of carbon costs in third countries.

3.1 Coordination between customs authorities and competent authorities (within and between Member States)

Coordination between customs authorities and competent authorities is vital for the CBAM compliance process from the first step and represents a new relationship between what is likely to be largely environmental ministries or agencies in Member States and national customs authorities. Competent authorities will need to communicate to customs authorities whether a declarant is authorised to import CBAM-covered goods. This will need to be coordinated across Member States when a declarant imports goods through the customs authority of a Member State outside of where the declarant is registered. All customs authorities will therefore need access to the registries of all competent authorities to check whether a declarant is authorised and where, unless this is centralised through a single master registry. No single, EU-wide registry is envisioned under the EC's proposed CBAM regulation, though the EC is tasked with coordinating national registries. In turn, customs authorities will need the means to report information that is vital for CBAM compliance – specified in section 2.2 – to competent authorities to ensure CBAM declarations are consistent with declarations at the border. In particular, customs authorities might help control that the physically imported good coincides with the good described in the CBAM declaration. This process is further discussed in section 4.2. Figure 1 below highlights these interactions between customs authorities and competent authorities, along with interactions between customs authorities and other key actors.

Since declarants are registered with only one competent authority, the need for structured coordination and exchange between national competent authorities in different Member States is less clear under the proposed approach to CBAM compliance. The same is true for coordination and exchange between national customs authorities in different Member States, since their role in the compliance process exclusively concerns information exchange with competent authorities. If a declarant imports goods through multiple customs authorities this should be communicated by each customs authority to the competent authority where the declarant is authorised.

Figure 1: Coordination between customs authorities and other authorities and stakeholders

Source: authors' own elaboration based on EC (2021a). Only those interactions that are formalised in the proposed CBAM regulation are included in the figure.

3.2 Relationship between competent authorities and declarants

The relationship between competent authorities and declarants is likely to be new for many Member States, assuming they select a competent authority for CBAM that is similar to the one charged with EU ETS enforcement. Competent authorities and declarants are connected by four processes: the authorisation of the declarant to import goods regulated under the CBAM, the management of the declarant's certificates account, sale/repurchase of certificates and the annual CBAM declaration. The four processes are prone to disputes, which is why conflict management provisions in the CBAM regulation centre around the relationship between competent authorities and declarants. Figure 2 below highlights these interactions between competent authorities and declarants, along with interactions between competent authorities and other key actors.

Authorisation is a one-time procedure in which the national competent authority allows the declarant to import CBAM-regulated goods. From that point on, the declarant is not required to seek authorisation again to import goods covered by the CBAM. The lack of authorisation blocks any imports of CBAM-regulated goods by the declarant. For this reason, the proposal for the CBAM regulation carefully outlines under which circumstances an authorisation can be denied, e.g., if the applying declarant was involved in serious customs infringements or other criminal offences relating to its economic activity (Article 5 (3)e and Article 17 (1)). Nevertheless, the process might cause conflicts between the competent authority and the declarant. If a declarant's application for authorisation with a competent authority is denied, they can first

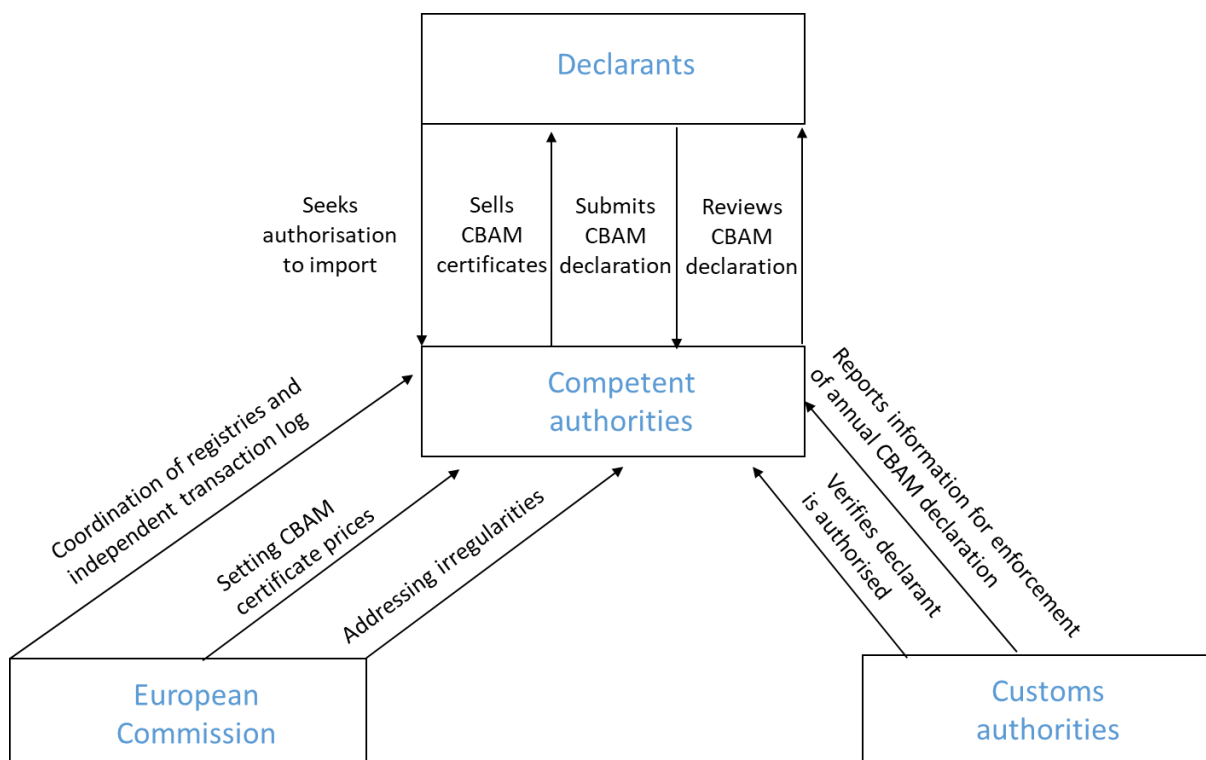
object to the relevant authority under national law of the EU Member State in which it is established. If the refusal is upheld, they have a right to appeal, but nothing further is specified. Competent authorities can revoke authorisation under certain conditions, including infringements of customs legislation, criminal offences, or failure to fulfil the obligations of the CBAM regulation (Article 17 (9)).

The competent authority manages the declarant's certificates account. The declarant can buy certificates from its respective competent authority at any point in time (Article 20 (1)), and the competent authority registers the purchase in the declarant's account (Article 21 (2)). They are valid until 30 June of the year that follows two years after the year of purchase (Article 24).

The declarant must submit its CBAM declaration each year to the competent authority (Article 6 (1)). The proposed regulation does not speak to extraordinary cases, such as where a declarant becomes insolvent between the importation of goods and submission of a CBAM declaration. With the CBAM declaration, the declarant surrenders the number of certificates corresponding to the verified emissions of the previous year's imports (Article 22 (1)). If the declarant's account does not cover the certificates that need to be surrendered, the declarant has to purchase and surrender additional certificates within a month (Article 22 (3)). The declarant has the right to lodge an appeal against the notification that it has to surrender additional certificates (Article 22 (4)). Conflict could arise, e.g., if the information regarding the embedded emissions in the CBAM declaration is deemed insufficient by the competent authority and it decides to use the default value instead.

The declarant can request the competent authority to re-purchase excess certificates after the required certificates have been surrendered (Article 23 (1)). The re-purchase amount is limited to one third of the previous year's purchase amount (Article 23 (2)) to limit hedging by the declarants against increasing certificates prices. The re-purchase shall be at the original purchase price (Article 23 (3)). Article 23 does not require specific reasons for re-selling certificates, meaning it covers a broad range of potentialities, including a declarant's importing less than anticipated or the closure of an installation in a third country that served as a supplier.

Another source of conflict is that the competent authority can review a declaration up to four years after submission (Article 19 (1)). A late review may lead to several conflicts. If the declarant has to surrender additional certificates, their purchase price is likely to be higher than the price it would have paid under an early or more timely review. The case of the declarant would be more severe if it beforehand re-sold excess certificates to the competent authority at a lower price which were meant to serve as a cushion for additional claims from the CBAM declaration.

Figure 2: Coordination between competent authorities and other authorities and stakeholders

Source: authors' own elaboration based on EC (2021a). Only those interactions that are formalised in the proposed CBAM regulation are included in the figure.

3.3 Coordination between declarants, operators of installations in third countries, and verifiers

The relationship between declarants and operators in third countries is critical for the success of the CBAM, which relies on actual emissions data in the case of industrial goods, but as stated in the previous chapter, there are no formal obligations placed on installations in third countries. Even the registry of operators in third countries is voluntary, though doing so would significantly ease compliance for declarants, since it would make verified emissions data more readily available.

In the absence of verified emissions data through a voluntary registry, declarants will need to coordinate more directly with the installations supplying their imports to obtain the information necessary for their annual CBAM declarations and with verifiers to ensure emissions are verified by an accredited verifier, though some degree of communication between declarants, operators in third countries, and verifiers is likely regardless of whether the operator participates in the EC's database.

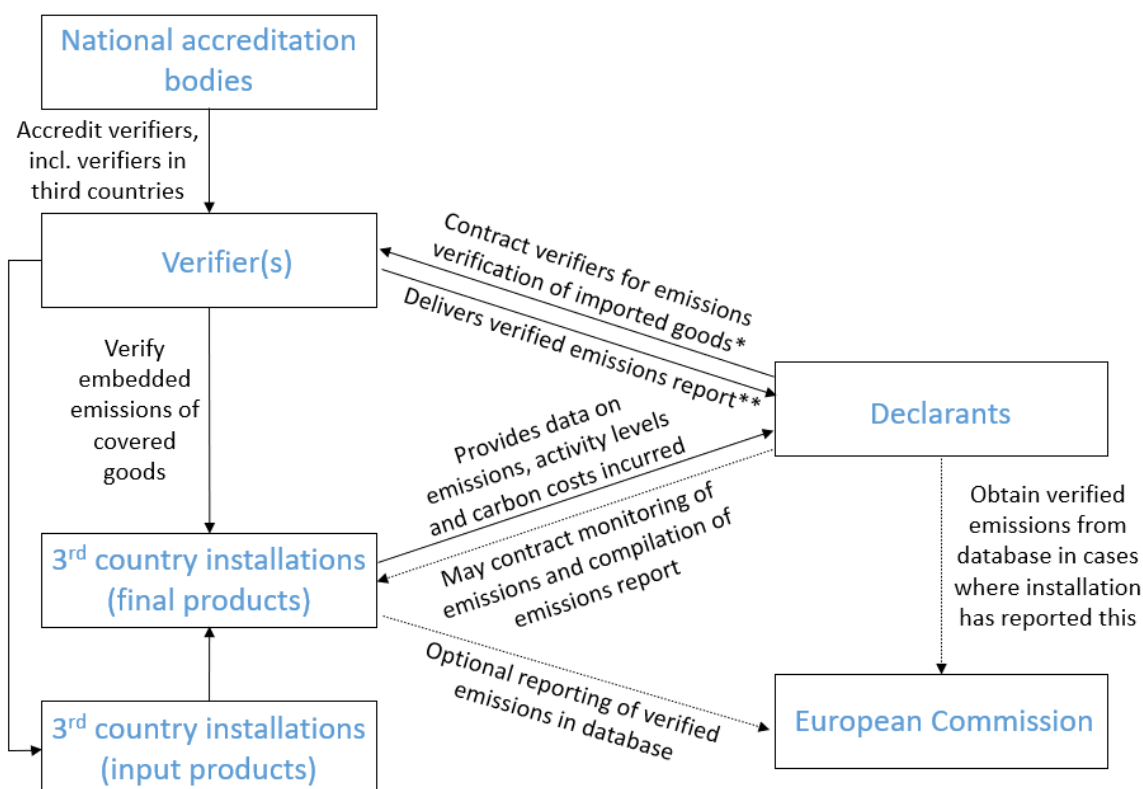
To state the amount of embedded emissions in the CBAM declaration, the declarant requires an emissions report from the third-country operator of the installation including information on product-specific emissions. For complex goods, the emissions reports should include verified product-level emissions levels from input materials. This involves a coordination between the installation operators of final and input products as well as the accredited verifiers of the emissions of the input product.

The impact assessment accompanying the CBAM regulation assumes that the costs related to compliance, including emissions reporting, generally arise for declarants rather than operators in third countries, given that the compliance obligation falls to the declarants (EC, 2021b). In

practice, however, this may vary based on the relationship between the declarant and the installation operator in a third country. For instance, there could be an agreement between declarant and operator on reimbursing costs for collecting data and compiling the emissions report. The compilation of the report could also be contracted to a third company, other than the accredited verifier. Figure 3 below illustrates these interactions and the involvement of other actors in emissions verification and other activities that occur in third countries.

In addition to reporting on verified emissions and related information (e.g. identifying the specific installations), declarants will need to obtain information on carbon costs that the operator incurred in the country of origin, again requiring exchange without an existing or foreseen official channel.

Figure 3: Interactions between key actors involved with activities that occur in third countries



Source: authors' own elaboration based on EC (2021a).

* It is possible that the operator of an installation contracts the emissions verifier, though it is assumed this will typically be the declarant.

**It is possible that a verified emissions report could be delivered by the third-country installation, depending on the relationship between the installation and the declarant.

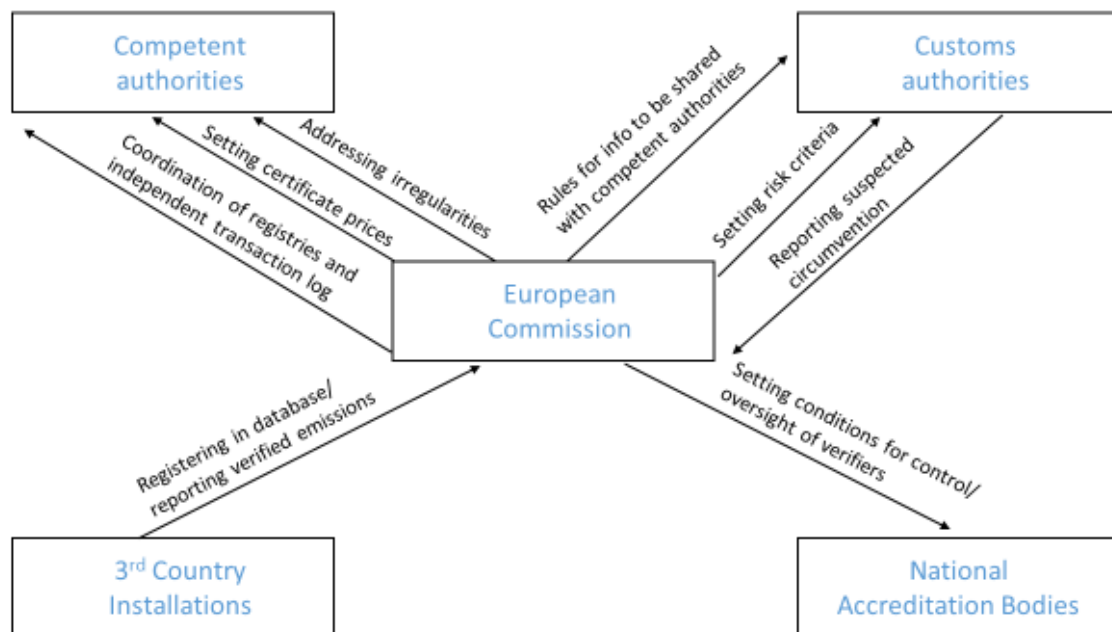
3.4 Coordination between the Commission and other stakeholders and authorities

While the EC in the proposed draft regulation is largely limited to acting as a central administrator and providing oversight, its role in the administration of the CBAM requires coordination with a range of stakeholders and public authorities. First, the EC has the only formalised interactions with operators of installations in third countries in its assigned role of

establishing a database where operators can voluntarily register and provide basic information, contact details, and emissions reports. Secondly, the EC is tasked with ensuring coordination of national registries, which will be critical for the flow of information between national competent authorities and national customs authorities, who will need to report information on the imports of declarants to various Member States depending on where the declarant is registered and to verify that a declarant is authorised by a national competent authority to import CBAM-covered goods. This coordination of national registries will also be critical to maintaining an independent transaction log of CBAM certificate transactions, to which the EC is assigned.

Lastly, the EC's oversight capacities will require significant exchange and coordination with public authorities in Member States, including national competent authorities and national customs authorities. This includes working with Member States where irregularities concerning CBAM transactions and suspected acts of circumvention occur. Given the many interactions and responsibilities outlined here and in the previous chapter, Figure 4 below offers a summary.

Figure 4: Coordination and oversight between the EC and other authorities/stakeholders



Source: authors' own elaboration based on EC (2021a). Only those interactions that are formalised in the proposed CBAM regulation are included in the figure.

4 Administrative demands of EC proposal and key questions and challenges going forward

The administrative structure and policy design of the EC's proposed CBAM regulation presents new demands for Member States in the implementation of the instrument and a number of challenges for consideration during the legislative process and for the EC's further implementing acts. This chapter explores the implications of the proposed structure and design of the CBAM along with key questions and challenges for consideration.

4.1 Higher resource needs under the proposed decentralised approach and increased demands for national competent authorities

Analysis of administrative demands and costs of the CBAM are found in the impact assessment accompanying the EC's proposal (EC, 2021b) in three different sections. Section 5.2.1.9 establishes core functional areas of work for authorities expressed in terms of full-time equivalent (FTE) positions needed as well as the institutional differences between centralised and decentralised approaches. Section 6.6.2, part of the main body of analysis, includes estimates resource needs in euros of different CBAM design options in terms of per-unit and overall costs of administrative functions. The estimations are based on previous studies of administrative costs in the EU ETS and customs instruments as well as EU data on wage costs.⁹ It can be assumed that the costs in 6.6.2 are derived from the staffing requirements identified in 5.2.1.9, including lump-sum material and other overhead costs.¹⁰ Lastly, Annex 6 includes detail on assumptions that underpinned sections 5.2.1.9 and 6.6.2 as well as IT infrastructure costs, which are considered additional to the costs outlined in section 6.6.2. The following section summarizes the estimations of the impact assessment but stops short of thoroughly reviewing the calculations of the EC.

The impact assessment estimates in Section 5.2.1.9 that 510 third-country installations produce CBAM-covered goods in its initial phase, with 1,000 importers to the EU and 239,000 individual import transactions per year, though it notes that these estimates have potentially significant margins of error, and the estimates are based on a slightly different sectoral scope than what appears in the EC's proposed regulation.¹¹ Based on these estimates, section 6.6.2 provides a breakdown of overall costs across key elements in a centralised system, displayed in Table 1.

⁹ See Amec Foster Wheeler Environment, 2016. Evaluation of EU ETS Monitoring, Reporting and Verification Administration Costs. http://publications.europa.eu/resource/cellar/f6a49ec5-c35c-11e6-a6db-01aa75ed71a1.0001.01/DOC_1 and impact assessment of EU customs and tax instruments, the implementation of EU legislation in Germany, and of taxation initiatives in the UK.

¹⁰ The impact assessment relies on estimations from the German administration applying an hourly rate of administrative costs of 62.61 to 109.79 Euros (See Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit (BMU) (2018): Entwurf eines Gesetzes zur Anpassung der Rechtsgrundlagen für die Fortentwicklung des Europäischen Emissionshandels. https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Glaeserne_Gesetze/19_Lp/tehg_novelle/entwurf/tehg-novelle_180801_rege_bf.pdf). This range covers the 75 FTE or 10 to 15 million Euros administrative costs calculated in the CBAM impact assessment.

¹¹ See Annex 6 of the CBAM Impact Assessment, Table 6-1. Estimates are based on the sectors steel, cement, aluminium, polymers, fertilisers, and petrochemicals, drawing largely on data from industry associations, the US International Trade Administration, and Eurostat. The number of installations in third countries is based on the number of EU installations in those sectors and the relation between EU production and imports. Only basic material imports were considered in the impact assessment's analysis. The estimation of importers is based on the number of Authorised Economic Operators and the share of CBAM-related goods in total imports to the EU.

Table 1: Overall costs per year for centralised CBAM administration and enforcement

Costs [in EUR] for different elements under reporting of default and actual emissions.

Cost element	Default emissions	Actual emissions
Processing of customs declarations	1,380,000	2,070,000
Assessment of monitoring and reporting action		3,442,500
Administration of CBAM accounts and payments	400,000	800,000
Customs controls	8,500,000	8,500,000
Site inspections	0	179,010
Sum	10,280,000	14,991,510

Source: CBAM impact assessment (EC, 2021b).

Administrative costs overall, which also include customs and site inspections of third-country installations, are estimated to be higher under a system relying on actual emissions, as is the case for the EC's proposal, totalling EUR 15.0 million per year compared to EUR 10.3 million for a system based on default values.

Fundamentally the choice of administrative approaches differs between a centralised system with a CBAM authority under the EC and a decentralised approach where the core functions are maintained by Member States. A centralised approach would require a new institutional structure within the EC, potentially necessitating more lead time for implementation, but would likely reduce the demands of coordination and harmonisation (EC, 2021b, p. 28). A decentralised approach, on the other hand, could – according to the EC – allow for faster implementation given that it could build on existing structures and competencies in Member States (ibid). However, a decentralised approach would also require new structures and staff in Member States. The impact assessment states that administration and enforcement costs are likely higher under a decentralised approach, especially for monitoring, reporting and verification (MRV, ibid, p. 78). Moreover, a decentralised approach requires a high degree of coordination between the Member States and the EC, the adoption of common communication standards and the definition of the technologies used by involved authorities and stakeholders.

Section 5.2.1.9 considers three core functional areas¹² resource needs expressed in terms of additional FTE. The additional FTE would apply to both centralised and decentralised models, but the latter would require additional FTE beyond the 75 overall additional FTE that is estimated for CBAM administration and enforcement. The first core functional area includes reviewing, assessing, and approving¹³ approximately 1,000 CBAM declarations per year. Assuming a maximum of 10 working days per CBAM declaration, this would require an estimated 50 FTE positions for all competent authorities in sum. This functional area of the competent authority also includes the authorisation of declarants and the imposition of penalties for non-compliance. It is not clear whether these tasks are considered in the estimation of the resource needs.

¹² These three functional areas are not defined within the proposed CBAM regulation and do not fully reflect the tasks described in the legal text.

¹³ The legal text of the draft CBAM regulation, however, does not require neither an assessment nor an approval of each CBAM declaration, but the competent authority “may review” the CBAM declaration (Article 19 (1)). In consequence, the cost estimates for the handling of CBAM declarations may be too high.

The second core functional area is handling disputes arising from declarants during the compliance process. Assuming one-third of declarations would lead to disputes, with a maximum of five working days needed for each, an additional 7.5 FTE positions would be needed¹⁴. The total 57.5 FTE positions across the first two core functional areas would not be distributed equally among Member States, given that some may have higher numbers of declarants registered with national competent authorities (EC, 2021b).

The third core functional area concerns the maintenance of the IT infrastructure, including maintaining registries and processing and recording transactions of CBAM certificates. The impact assessment estimates this would require 18 full-time equivalent positions, with a decentralised approach implying higher overall resource needs. IT costs under the decentralised approach, outlined in greater detail in Annex 6 of the impact assessment, differ sharply from a centralised approach given the need to communicate information between competent authorities and customs authorities in different Member States. Under a centralised approach, the CBAM could be implemented under the EU's recently launched Single Window Environment for Customs, which allows for automatic assessment and sharing of import data and is applied in some similar applications, such as imports of goods containing ozone depleting substances (EC, 2021b). However, based on costs of individual Member States in launching EU VAT rules for e-commerce, which is used as a comparison for a decentralised approach, IT costs to Member States in sum are estimated at EUR 2.2 million on average for initial setup.

4.2 Review process of the CBAM declaration

One key element for success of the CBAM system is that the competent authority is enabled to effectively review the CBAM declarations. The main challenge in this process is to derive and verify the emissions embedded in a product. For this purpose, it is necessary that the declaration, on the one hand, contains all necessary information and, on the other hand, the competent authority is enabled to review the truthfulness of this information. A number of challenges arises regarding the effectiveness of the review process.

One major challenge, that is not addressed in the current draft regulation, is to decide who is responsible for the calculation of product-specific emissions: the declarant or the installation producing the final product. While the installation can directly determine emissions generated at its site, it may have no or little access to information on emissions related to the productions process of input products also covered by the CBAM regulation. This suggests that the declarant should calculate the emissions embedded in the imported products or contract monitoring of emissions and the compilation of emissions reports, as outlined in section 3.3. Either way, the envisaged verification process in Annex V (2) points to an installation-level process for verification and therefore likely also for monitoring.

Independent of who is responsible for it, the calculation of product-specific emissions is challenging as it involves attributing installation-level emissions to the specific product in installations that produce more than one product. Likewise, it requires emission reports of installations producing basic materials serving as inputs to the production of complex goods as well as the input shares of these basic materials. The accredited verifier is responsible for verifying both aspects of the calculation as outlined in Annex V (2). Consequently, the CBAM verification process is more complex than the existing EU ETS verification that focusses on installation-level emissions.

¹⁴ Similar to the review process for CBAM declarations, the Impact Assessment might overestimate the cost for handling disputes, as not every CBAM declaration will be assessed by the competent authorities. The number of disputes might therefore be smaller.

The CBAM declaration provided by the declarant should transparently outline the calculation of the embedded emissions of the imported goods. For this purpose, Article 7 (4) states that the declarant shall keep records of the information used to calculate embedded emissions sufficiently detailed to enable the competent authority to review the CBAM declaration. It would be desirable for the regulation to be more precise in stating that these records as well as the verification report(s) should be included in the CBAM declaration as annex. The verification report(s) could serve as basis for the competent authority to decide whether an in-depth review of the CBAM declaration might be necessary.

Another challenge for the competent authority to review the truthfulness of reported emissions is to establish a clear and verifiable link between the imported product and the installation at and production process by which it is produced. Otherwise, a declarant importing products from three different installations could state that all products come from the installation with the lowest emissions per product unit. At a minimum, a system could be established that ensures that the products labelled as originating from one specific installation do not exceed the production capacity of this installation. If a sort of certification system is developed for the purpose of linking products to installations, customs authorities could help control these certificates, thus, providing valuable input for the review process of the CBAM declaration.

4.3 Challenges of conducting MRV on facilities outside of the EU

CBAM implementation represents a significant expansion of MRV demands and new challenges, given that the emission sources are located outside the EU while responsibility for reporting emissions and surrendering CBAM certificates falls to the declarant importing the goods in the EU and not to the producing installation. Challenges occur with respect to monitoring and reporting by the declarant, the possible accreditation of verifiers based in third countries, and oversight of accredited verifiers in third countries.

The annual MRV process will face new challenges relative to annual compliance in the EU ETS. Under the EU ETS, emissions are monitored based on monitoring plans that are specific to each installation, outlining their activities, source streams and emission sources, procedures, and responsibilities for monitoring, and other key pieces of information for compliance. Monitoring plans are approved by national competent authorities designated by each Member State for EU ETS compliance based on the EU's Monitoring and Reporting Regulation (MRR). There is no equivalent monitoring plan envisioned under the draft CBAM regulation for competent authorities to approve and for verifiers to base on their verification. Without monitoring plans, there is no reliable basis for verification and robust enforcement. It is therefore desirable that the CBAM regulation includes the development and approval of monitoring plans as part of the MRV requirements for third-country installations.

There is also no direct regulatory relationship between the emitter – in this case the third-country installation – and the competent authority, which may complicate enforcement. For instance, the declarant is limited in its ability to provide any additional information or documentation about the imported goods that a competent authority may need to enforce compliance obligations. As third-country installations are outside the jurisdiction of the EU and Member States, competent authorities may also be limited in their legal remedies against third-country installations in cases of provable misreporting or other violations of the CBAM regulation. This would place added legal burdens on declarants based in the EU in the event inaccuracies emerge in CBAM declarations at the fault of a third-country installation. Declarants are ultimately relying on verifiers, who in turn are relying on the cooperation of third-country installations, which creates considerable distance between potential infractions and the party that can be held liable. The chief incentive for declarants to ensure accurate CBAM declarations

is the revocation of their authorisation to import CBAM-covered goods. In contrast the incentives for third-country installations to accurately report emissions are less direct, centring on potential damage to business relationships with declarants.

As declarants may have little experience with emissions compliance systems like the EU ETS, there is likely a need for guidance and capacity building to fulfil their obligations, initiate emissions verification of third-country installations from which they are purchasing goods, and maintain all necessary documentation.

Challenges may also arise with emissions verification. The pool of accredited verifiers is limited to those operating in the EU by the AVR, but emissions from hundreds of installations in third countries will require verification. This includes site visits, which are mandatory under the AVR in all first instances of emissions verification. Waiving site visit requirements under existing EU regulation can only be done in narrow circumstances, such as facilities with only natural gas emissions sources or a limited number of emission sources below a certain threshold as defined under the MRR. In order to deal with this congestion, the proposed CBAM regulation empowers the EC to adopt further provisions in implementing acts concerning the possibility to waive the obligation for the verifier to visit the installation where relevant goods are produced.

Accredited verifiers will therefore face new demands in carrying out expanded work outside the EU, including language and technical barriers, which may necessitate accreditation of verifiers outside the EU. Article 18 of the proposed CBAM regulation allows for national accreditation bodies in the EU to accredit verifiers outside of the AVR. However, this likely presents further challenges for the control and oversight of verifiers, with the EC playing a role in setting guidelines and conditions to allow for proper supervision by the national accreditation body. Provisions that adapt the AVR or refer to relevant passages of the AVR would be desirable, since they have been successfully tested. Significant capacity building may be required, both for verifiers and for installations in third countries. CBAM revenues could serve as a source of funding for capacity building, but the instrument will not generate revenue until it is operational in 2026, while emissions reporting will be required during the transition from 2023-2025.

Lastly, while the EC's CBAM proposal explicitly states that confidential data acquired by competent authorities will be covered by obligations of professional secrecy (Article 13), confidentiality concerns from operators of installations in third countries may still arise and may require further consideration during the legislative process ahead. For one, such data does not exclusively go to competent authorities, but also declarants, who will typically be private firms, not public authorities, and who are expected to maintain documentation on installations in third countries, including on the level of production and their emissions intensity of production. Declarants may also import from multiple, potentially competing companies, raising further concerns from operators in third countries. The implications of widespread refusal of third-country operators to report their verified emissions are significant. The methodology for calculating embedded emissions relies on actual emissions data, but even setting default values for exporting countries in the absence of reliable installation-level data will be challenging without the cooperation of third-country operators.

The database of operators in third countries maintained by the EC likely poses fewer concerns, given that registration is voluntary, operators in third countries can choose to not to have their contact details accessible to the public, and emissions data would not be disclosed publicly through the database.

4.4 Harmonisation and potential for further centralisation

As the CBAM in its proposed form relies on a decentralised approach for its implementation, harmonisation of enforcement is critical to its success. Harmonisation of the implementation of CBAM across Member States is needed to ensure efficiency, fair treatment of declarants, and more clarity for the implementing bodies.

A lack of harmonisation might lead to different problems. For instance, if an operator of an installation delivers a product to various authorised declarants in different Member States, Member States would have to coordinate to make sure that reported embedded emissions of this product from this installation are the same EU-wide. Further, harmonisation will help to avoid situations in which declarants cherry pick or “forum shop” the competent authorities with the least stringent CBAM enforcement e.g. due to a lack of capacities, for instance in CAs of small Member States. Harmonisation in certain areas, such as the authorisation of declarations and the review of CBAM declarations and penalties, is key to ensure that CBAM enforcement is equally stringent across Member States. At first sight, cherry picking might be limited because the declarants have to register at the competent authority in the Member State where they are established. However, a declarant might establish subsidiaries to evade stringent enforcement. In any case, the declarant would then consider other factors besides CBAM stringency, e.g. tax regulation, when choosing its Member State of establishment.

The EC plays the leading role in ensuring harmonisation across Member States and is empowered to adopt implementing acts that can further this aim, including:

- Format of application for authorising declarants and procedures to follow (Article 5 (6)).
- Format and procedure for submitting CBAM declarations (Article 6 (6)).
- Methodology for calculating reductions in obligations based on carbon costs already incurred in the country of origin (Article 9 (4)). A decentralised approach would need to ensure that the same level of carbon costs is recognized.
- Ensuring consistency across national CBAM registries similar to the approach of the EU ETS Union Registry.
- Accreditation and inspection of verifiers through national accreditation bodies. This could take a similar format as under the EU ETS, which requires regular audits and peer reviews of verifiers.
- Defining information to be given by customs authorities to competent authorities as well as the timing and means of communication (Article 25 (5)). As this is a key area of additional IT costs, centralisation of this process could lower overall administrative costs.

The EC’s proposed CBAM regulation also foresees further implementing acts on the methodology for calculating the embedded emissions of imported goods, but there may be a need for additional harmonisation of the MRV process carried out by third-country installations. In the case of the EU ETS, the MRV requirements are harmonised through the MRR in addition to methodologies for calculating emissions. CBAM implementing acts may similarly require a harmonisation of procedures for competent authorities supervising MRV activities of the declarant and third-country installations when reviewing CBAM declarations.

While Article 26 (5) of the proposed CBAM regulation sees the responsibility for sanctions for non-compliance of declarants reside with the Member State, harmonisation of this process across national authorities would be beneficial for an efficient implementation of CBAM. The

same applies for a harmonisation of the regulation of conflict management for which Member States are responsible.

Further areas for potential centralization are the operation of the registry including the sale and repurchase of CBAM certificates and the IT infrastructure. This could potentially increase efficiency and reduce the coordination needs between Member States and the EC.

4.5 Timeline for implementation

The CBAM proposal outlines that it should enter into force in 2023 (Article 36 (2)) with a transitional period from 2023 to 2025 (Articles 32 to 35) in which there is no obligation to surrender allowances for the declarant but only a reporting obligation. Full operation of the CBAM starts in January 2026. During the transitional period, declarants submit a quarterly “CBAM report” as a simplified precursor of the CBAM declaration (Article 35). Embedded emissions declared under the CBAM report do not require verification. Customs authorities shall inform importers of CBAM-regulated goods of their reporting obligation and communicate required information to the competent authorities. Declarants need to apply for authorisation and competent authorities grant authorisation as described in Articles 5 and 17 from September 2025 onwards.

To start the transitional period in January 2023, several challenges must first be overcome. In particular, the approval of all necessary implementing acts needs substantive preparation time. Several required provisions are without precedent, e.g., those related to product-specific MRV and crediting of carbon costs already incurred. They have no existing blueprint they can use and hence are complex to draft and approve. While the provisions related to the surrender of CBAM certificates do not enter into force before 2026, guidelines on monitoring and reporting as well as the provisions for penalisation in case the declarant fails to comply with its reporting obligation should be adopted as implementing act before January 2023. Likewise, the necessary communication channels between competent authorities and customs authorities and appropriate IT solutions must be established before 2023.

With surrender obligations starting in 2026 or 2027, compilation and verification of 2025/26 data will be necessary.¹⁵ Detailed rules for emissions monitoring, product-specific emissions reporting, and verification as well as for how to adjust the surrender obligation to account for carbon prices paid in the country of origin and for the extent allowances are allocated for free to EU installations producing CBAM goods need to be available ahead of time. In general, implementing acts should be adopted sufficiently before the operational phase in order to provide time for competent authorities, declarants, installation operators and verifiers to familiarise themselves with the rules, to build capacities and to provide trainings. In light of these considerations, the EC’s proposal to start CBAM in January 2023 appears ambitious.

¹⁵ The CBAM proposal seems to be inconsistent regarding the starting dates of the CBAM obligations. Article 36 explicitly states that the authorisation process for declarants starts by September 2025. The other obligations take effect in January 2026, including the control of goods imported by authorised declarants (Article (4) and (25)) as well as the sale of CBAM certificates (Article (20)). This suggests that a surrender obligation for goods imported in 2025 is not intended. However, Articles (6) and (22) indicate that a CBAM declaration needs to be turned in by May 2026 and there is a surrender obligation for this year for goods imported in 2025.

5 Conclusion

As the CBAM seeks to mirror the costs of the EU ETS, parts of its planned administrative infrastructure are built upon it, most notably the proposed high degree of decentralised enforcement by competent authorities reviewing CBAM declarations and ensuring other aspects of compliance obligations. Similarly, the CBAM relies on existing customs procedures and authorities but with augmented reporting requirements and new points of coordination, namely with national competent authorities that enforce CBAM compliance obligations after goods are imported. The CBAM therefore draws on key aspects of EU and Member State institutional structures while expanding the duties of key authorities and creating new interactions between them.

This presents new challenges and demands, both in terms of human resources and IT. The decentralised approach of the EC's proposal entails greater costs than an instrument that leaves more duties and competences to the EC, as well as greater potential for divergences across Member States and thus a greater need for harmonisation through guidance and further implementing acts from the EC. Some tasks might be better addressed at EU level in order to avoid “cherry picking” (“forum shopping”) by the declarants and double work at national authorities, e.g., the provision of the registry or IT infrastructure. The degree of centralisation is currently still discussed as the European Parliament's Environment Committee's CBAM report from December 2021 shows (EP, 2021). Finding an appropriate balance between centralised and decentralised administrative processes will be crucial to the success of the CBAM.

Perhaps the greatest challenge will be conducting the crucial work of MRV in third countries and the related administrative work, which is instrumental not only to the integrity of annual compliance obligations but also key features of design, such as setting default values of embedded emissions in the absence of independently verified emissions data. Verifiers and the national accreditation bodies that accredit them will face new demands as the work of verification shifts to facilities outside of the EU, which face no compliance obligations for their emissions but are critical to the ability of declarants in the EU to fulfil theirs. Particularly, establishing processes to attributing installation-specific emissions to individual products as well as calculating emissions from input products will be challenging for all involved entities as there is no comparable existing process in the EU ETS. While this is not envisioned in the current CBAM proposal, provisions to establish monitoring plans and to include verification reports in the CBAM declaration would be important to ensure a robust MRV system.

Establishing CBAM administrative structures entails carefully balancing the trade-off between a high bureaucratic burden and administrative costs and the reliability of the MRV system. This involves balancing responsibilities borne by the competent authorities and by verifiers. Further, to ensure equal treatment, it would be desirable that the European and third-country installations would bear comparable MRV costs.

Another challenge is to optimally resolve potential conflicts arising from the fact that the regulated entity under the CBAM is the declarant, but MRV has to take place at the producing installation. This means that the declarant is responsible and can be sanctioned for information provided by a third party.

The timeline for establishing the EU CBAM needs to take into account the aforementioned challenges. The EU requires sufficient time to draft and approve appropriate implementing regulations. Competent authorities, declarants, installation operators and verifiers should have enough time to familiarise themselves with the rules, to build capacities and to provide trainings related to the CBAM. As the first attempt ever by a jurisdiction to establish a border carbon

adjustment at this scale, the EU is certain to face challenges with implementation and setting the right administrative structure. Fortunately, it has gained significant experiences with pricing GHG emissions and operating the world's largest trading bloc. The test will be finding a way to bring both together.

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