

CBAM Crossroads :

Strategic Pathways to Global Compliance and Growth



Executive Summary

The **Carbon Border Adjustment Mechanism (CBAM)**, set for full implementation by January 2026, represents a pivotal evolution in global trade and sustainability practices. By applying a carbon price on imports into the European Union (EU) across key sectors such as cement, steel, aluminum, fertilizers, and electricity, CBAM seeks to align international trade with the EU's ambitious climate goals. For businesses with global supply chains, CBAM is more than a compliance requirement—it is a strategic turning point, presenting both challenges and opportunities in equal measure.

This eBook offers a practical, data-driven roadmap to help organizations navigate the complexities of CBAM with confidence. It distills the regulatory framework into actionable strategies, exploring the financial and operational implications businesses must consider during the transitional phase from 2023 to 2026. By breaking down the scope of CBAM and its targeted sectors, this guide equips businesses with the tools to meet regulatory demands, mitigate risks, and leverage sustainability as a driver of growth.

Key Takeaways

- **Managing Embedded Emissions:** Learn how to calculate and reduce carbon emissions across your supply chain to align with CBAM requirements.
- **Tracking Carbon Across Subsidiaries:** Develop robust systems to monitor and report embedded emissions, ensuring compliance with EU standards.
- **Avoiding Penalties:** Understand the financial risks of non-compliance and the importance of timely preparation to minimize disruptions.

CBAM is not just a regulation; it is a catalyst for transformation. For businesses ready to act, it provides a framework to rethink operational efficiency, innovate processes, and align with global environmental priorities. By proactively addressing CBAM's requirements, companies can enhance their ESG performance, strengthen stakeholder trust, and build resilience in an increasingly carbon-conscious economy.

This guide frames CBAM as an opportunity to achieve more than compliance—it is a chance to lead. By embracing this shift, businesses can position themselves as frontrunners in sustainable trade, driving long-term growth while contributing to a low-carbon future. Whether your organization is already exporting to the EU or exploring opportunities to enter this critical market, this guide provides a comprehensive overview to ensure you are prepared for the challenges ahead. It equips you with the insights and strategies to navigate CBAM effectively, turning regulatory demands into a stepping stone for innovation, growth, and global leadership.

Introduction to CBAM and Its Impact on Global Businesses

The Carbon Border Adjustment Mechanism (CBAM), introduced by the European Union, is a groundbreaking regulatory framework designed to prevent carbon leakage. Its primary goal is to ensure that imported goods are taxed according to the carbon emissions involved in their production, similar to the EU's own carbon pricing under the Emission Trading System (ETS). By placing a price on the embedded carbon of imports, CBAM incentivizes cleaner production processes worldwide while leveling the playing field for EU industries.

Why CBAM is Important for Global Businesses

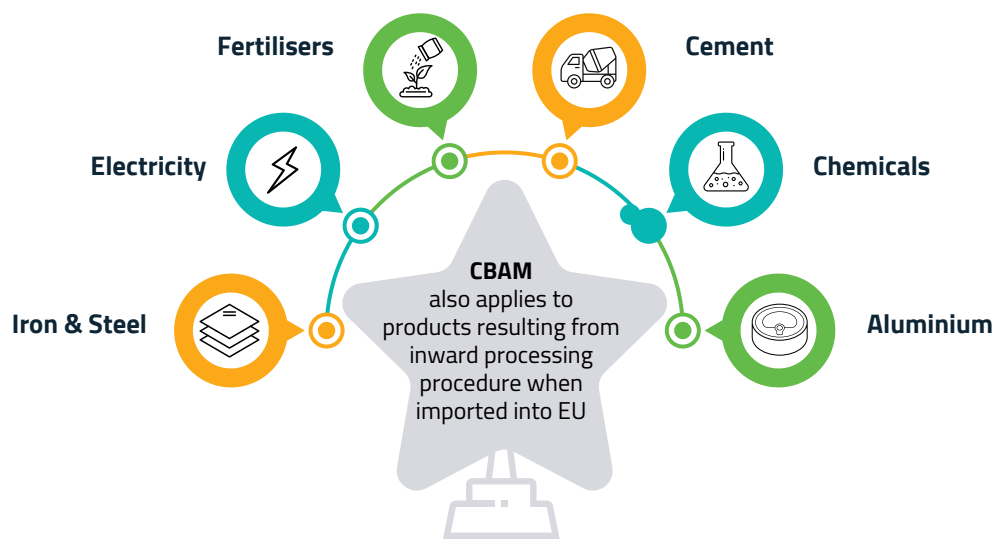
CBAM requires businesses to carefully track the carbon emissions embedded in the products they export to the EU, ensuring all emissions are accurately reported. The sectors affected are some of the most carbon-intensive, making it crucial for companies in these industries to act swiftly. U.S. businesses, in particular, face significant exposure as they often lack a national carbon pricing mechanism, meaning the full cost of CBAM will likely be felt across multiple sectors.

For companies operating with global supply chains, CBAM creates a new layer of complexity. Subsidiaries operating in countries without carbon pricing mechanisms must now account for and report embedded emissions. This introduces challenges in:

- **Data collection** from various production sites.
- **Supply chain coordination**, especially when goods are produced in multiple locations.
- **Compliance costs**, including the purchase of CBAM certificates starting in 2026.

Sector Focus and Carbon Intensity

CBAM primarily targets sectors that are high in carbon intensity and at risk of carbon leakage. These sectors account for more than 50% of the emissions in industries covered by the EU's Emission Trading System (ETS).



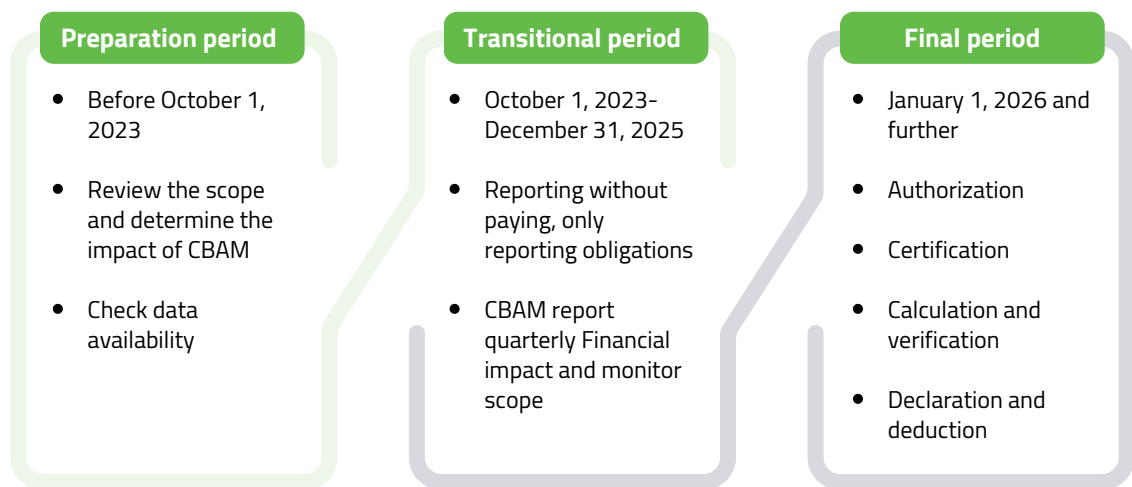
Sector	Global CO2 Emissions (%)	CBAM Coverage
Cement	7%	Embedded carbon in imports
Aluminum	2%	Direct and indirect emissions
Iron and Steel	8%	Production and processing
Fertilizers	1.5%	Nitrogenous fertilizers only
Electricity	5%	Indirect emissions only
Hydrogen	0.5%	Covered for embedded carbon

The inclusion of these sectors under CBAM reflects their significant contribution to global emissions, making them critical targets for decarbonization. The EU has justified their inclusion based on the high risk of carbon leakage, where production may shift to countries with less stringent carbon regulations.

Key Timelines and Phases of CBAM Implementation

As businesses prepare for the Carbon Border Adjustment Mechanism (CBAM), understanding the timeline of its implementation is essential to ensure compliance and avoid costly penalties. CBAM will be rolled out in phases, starting with reporting requirements and culminating in the full enforcement of carbon pricing in 2026. This chapter outlines the critical deadlines, and the actions businesses need to take during each phase.

Impact Timeline



The Transitional Phase (2023–2025)

The transitional phase began on October 1, 2023, and will continue until the end of 2025. During this phase, businesses exporting to the European Union are required to report their embedded carbon emissions on a quarterly basis. However, it is important to note that no financial obligations, such as purchasing CBAM certificates, are imposed during this period. This phase is intended to help businesses adapt to the new reporting standards and prepare for the full rollout in 2026.

Key Requirements in the Transitional Phase:

- **Quarterly Reporting:** Companies must report embedded carbon emissions for all products covered by CBAM, with the first report due by January 31, 2024 for the October–December 2023 period.
- **Reporting Methods:** Emissions can be calculated using EU-approved methods or, in some cases, through default values until the transition period ends.
- **Data Accuracy:** While financial penalties aren't enforced in this phase, accurate data reporting is crucial as errors may lead to compliance issues when the system fully launches.

The Definitive Phase (January 2026 Onwards)

The definitive phase begins on January 1, 2026, marking the point at which CBAM will be fully operational. During this phase, businesses will be required to purchase CBAM certificates to cover the embedded carbon emissions of their imports. The certificates will reflect the price that would have been paid if the goods had been produced within the EU under its Emission Trading System (ETS).

Key Requirements in the Definitive Phase:

- **CBAM Certificates:** Importers must purchase these certificates to cover the embedded carbon in their products. The price of the certificates will be based on the weekly average auction price of EU ETS allowances, measured in EUR/tonne of CO₂.
- **Third-Country Carbon Pricing:** If a non-EU producer has already paid a carbon price in their home country, that amount can be deducted from the CBAM obligation, provided that the EU recognizes the carbon pricing mechanism.
- **Financial Penalties:** For inaccurate or incomplete reporting, penalties of up to EUR 50 per tonne of unreported emissions will be imposed starting in 2026.

Preparing for CBAM Compliance: Key Actions

To ensure compliance with CBAM, businesses must take the following steps during the transitional phase to be prepared for the definitive phase:

- **Data Collection Systems:** Companies must put systems in place to accurately track the carbon emissions embedded in their products. This includes collecting data from across the supply chain and ensuring all relevant carbon data is available for reporting.
- **Engage with EU Importers:** It is essential for companies to work closely with EU importers to ensure that the necessary data is being collected and reported in line with CBAM requirements. Miscommunication or incomplete data could lead to higher carbon costs when CBAM certificates are required.
- **Invest in Carbon Tracking Technologies:** To simplify reporting and ensure accuracy, many companies are turning to carbon tracking platforms such as Lythouse. These platforms automate the data collection process, allowing businesses to seamlessly report emissions and prepare for the certificate purchasing phase in 2026.
- **Evaluate Supply Chain Emissions:** Businesses should assess the carbon footprint of their entire supply chain and look for opportunities to reduce emissions. By doing so, they can minimize their future CBAM certificate costs while improving overall sustainability.

The transitional phase of CBAM offers a crucial window for businesses to prepare for full compliance. By understanding the key timelines and taking the necessary steps now, companies can ensure they are well-positioned for success in the definitive phase, avoiding penalties and optimizing their carbon strategies. In the next chapter, we will explore the key steps that multinational corporations (MNCs) and global subsidiaries must take to ensure compliance, focusing on how to strategically assess CBAM's impact on your operations and develop an actionable plan to mitigate risks and costs.

Initial Considerations and Key Steps for CBAM Compliance



What needs to be done By Exporters

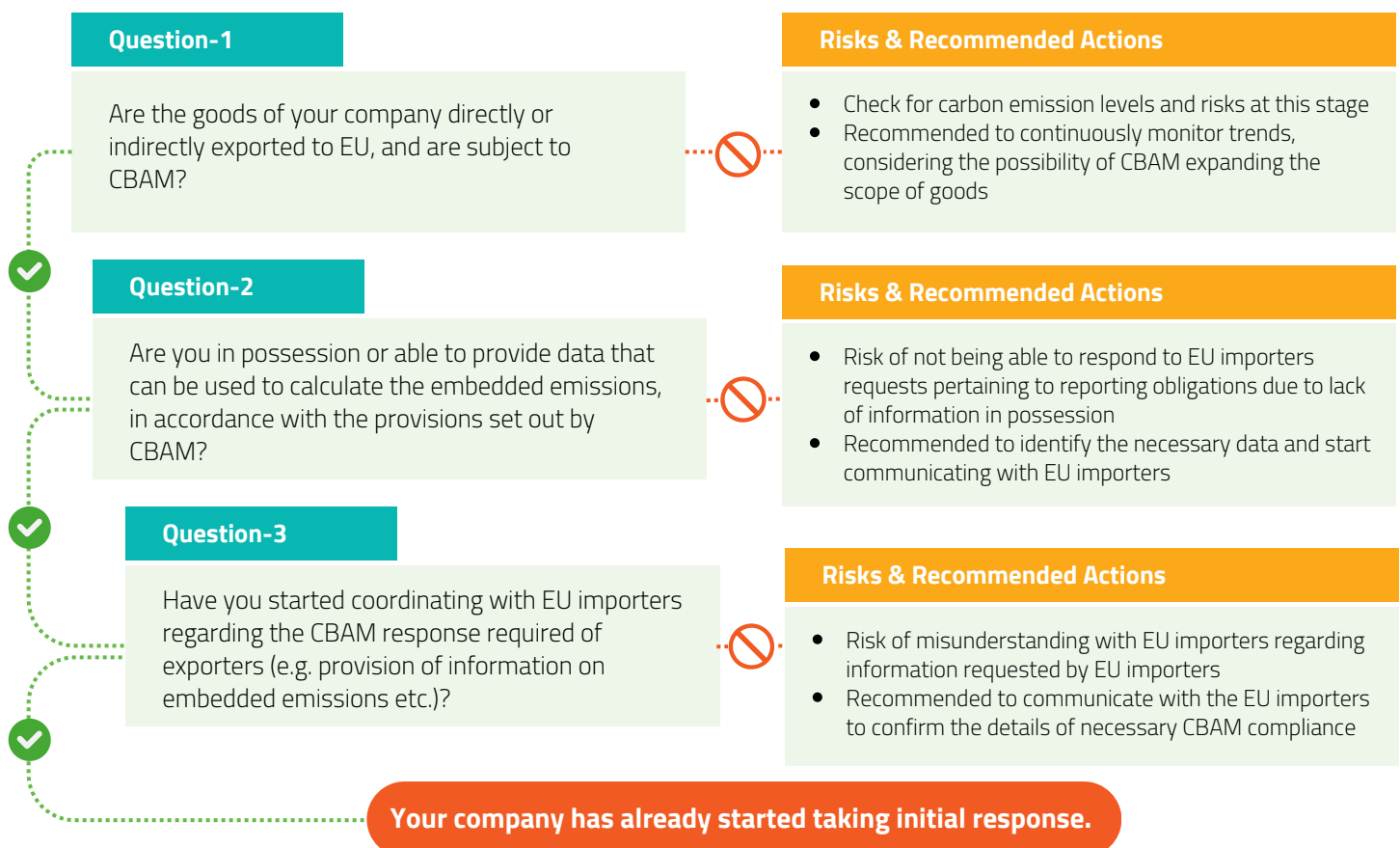
Identification of products – are they covered under the CBAM regulation?

- Processed goods check – assessing the extent of applicability of CBAM (processed goods from covered goods resulting from inward processing are also covered)
- Information collation and computation concerning embedded emissions
- Potentially establishing a CBAM organisation for the efficient management of information relevant to CBAM reporting
- Ensuring that the relevant, format-based information is passed on to the EU importer

- Priority for the transitional phase – ensuring a high level of accuracy in sharing information concerning CBAM with the EU importer
- Priority post the transitional phase – attempting to minimise the carbon levy incidence (if any), along with following the above-mentioned steps

Initial Consideration of CBAM Impact

For companies that export CBAM goods to EU, the following questions would be relevant



1

Identifying the Impact of CBAM on Your Business

Before diving into detailed compliance measures, businesses must assess whether their goods are directly or indirectly exported to the EU and are subject to CBAM.

Key Questions for Businesses:

Are your goods directly or indirectly exported to the EU and subject to CBAM?

- The first step is determining whether the goods your company exports are covered under CBAM. The sectors initially affected include cement, iron and steel, aluminum, fertilizers, electricity, and hydrogen.

Action Point:

- **Yes:** Proceed to assess your data readiness and start planning for compliance.
- **No:** Begin monitoring for changes, as the scope of CBAM may expand in the future.

Risks & Recommended Actions:

- **Risk:** Companies may fail to anticipate future CBAM expansion if no action is taken.
- **Action:** Start assessing the carbon emissions of your exported goods now, even if they are not currently covered by CBAM, to prepare for possible future inclusion.

2

Assessing Data Availability and Readiness

Once it's established that your goods are subject to CBAM, the next step is ensuring that your company can provide the necessary data to calculate embedded carbon emissions according to CBAM provisions.

Key Steps:

Information Collation and Embedded Emissions Calculation:

- Companies must calculate the embedded carbon emissions associated with each product. This requires collecting carbon data from across the entire supply chain and using EU-approved methods for emissions calculation.

Action Point:

- Set up systems for collating emissions data from various production sites and suppliers.
- Use EU-recognized calculation methods to ensure accuracy and compliance with CBAM standards

Risks & Recommended Actions:

- **Risk:** Failing to provide data to EU importers may result in non-compliance and penalties.
- **Action:** Engage with internal teams and external partners to ensure accurate data collection across your supply chain. Identify carbon hotspots and ensure your systems can report emissions in line with CBAM standards.

Coordination with EU Importers

Effective communication with EU importers is critical for ensuring compliance. Importers are responsible for reporting the embedded emissions of the goods they import, and they will rely on you to provide accurate emissions data.

Key Considerations:

Have you started coordinating with EU importers regarding the required CBAM information?

- Coordination ensures that the correct, format-based information is passed to EU importers, which is essential for avoiding misunderstandings that could lead to non-compliance.

Action Point:

- Develop a standardized reporting process that ensures accurate and timely information sharing with EU importers.
- Establish regular communication protocols with importers to confirm reporting timelines and requirements.

Risks & Recommended Actions:

- **Risk:** Miscommunication between exporters and importers could lead to misunderstandings, increasing the risk of financial penalties.
- **Action:** Establish regular communication with EU importers to confirm all the necessary details, timelines, and data-sharing protocols to ensure smooth CBAM reporting.

Establishing a CBAM Compliance Organization

To efficiently manage CBAM-related activities, it is recommended that global companies establish a dedicated CBAM organization within their structure.

Key Steps:

- Create an internal CBAM compliance team: This team should be responsible for overseeing all aspects of CBAM compliance, from data collection to reporting and communication with EU importers.

Action Point:

- This team should liaise with EU importers and ensure that all emissions data is communicated accurately and on time.

Risks & Recommended Actions:

- **Risk:** Without a dedicated team, there may be gaps in compliance, leading to potential penalties.
- **Action:** Centralize reporting processes within a specialized CBAM compliance team to streamline operations and ensure consistent communication with EU partners.

5

Prioritizing the Transitional Phase (2023–2025)

During the transitional phase, which runs from 2023 to 2025, the priority for global subsidiaries is to ensure a high level of accuracy in their emissions data. This period allows companies to adapt to CBAM's reporting requirements without financial penalties.

Key Actions:

- **Use the transitional phase to test and refine emissions reporting processes:**
- Ensure data accuracy before 2026 by identifying any gaps in the data collection process and implementing solutions.

Risks & Recommended Actions:

- **Risk:** Inaccuracies during this phase can lead to higher compliance costs in the future.
- **Action:** Leverage the transitional phase to perfect data management systems and refine internal workflows.

6

Post-Transitional Phase (2026 Onwards)

Once the transitional phase ends in 2026, global subsidiaries will be required to purchase CBAM certificates for the carbon emissions embedded in their goods. The priority for this phase is to minimize the impact of carbon levies by reducing embedded emissions and ensuring compliance with reporting standards.

Key Actions:

- **Implement strategies to reduce embedded emissions:**
- Continue refining data management processes to ensure smooth compliance with CBAM regulations.

Risks & Recommended Actions:

- **Risk:** Failing to reduce emissions could lead to higher costs associated with purchasing CBAM certificates.
- **Action:** Focus on sustainable practices and emission reduction strategies to lower the financial burden of CBAM compliance.

Navigating CBAM compliance requires careful planning and execution across several critical areas, including product identification, emissions calculation, and communication with EU importers. By following these key steps, companies can ensure they remain compliant, avoid penalties, and effectively manage their carbon costs under CBAM.

The Financial Implications of CBAM for Global Companies

As the Carbon Border Adjustment Mechanism (CBAM) rolls out, understanding the financial implications is crucial for companies exporting to the European Union. This chapter will focus on the key cost considerations associated with CBAM, including the potential financial impact of CBAM certificates and penalties, and will illustrate these costs through a real-world scenario.

Key Cost Considerations

CBAM Certificates: Starting in January 2026, companies exporting goods covered under CBAM will be required to purchase CBAM certificates. These certificates will be priced based on the weekly average auction price of EU Emission Trading System (ETS) allowances, expressed in EUR per tonne of CO₂ emitted. The number of certificates a company must purchase corresponds to the embedded carbon emissions in their exported goods.

- **Cost Calculation:** The cost for CBAM certificates depends on the carbon intensity of the goods and the market price of carbon allowances. The more carbon-intensive the product, the higher the cost for certificates.

Penalties for Non-Compliance: Failure to comply with CBAM regulations, whether through incorrect reporting or failure to purchase the necessary certificates, can result in significant financial penalties. Companies may face fines of up to EUR 50 per tonne of unreported or under-reported carbon emissions. These penalties can accumulate quickly, particularly for companies dealing with large volumes of exports to the EU.

- **Risk Management:** Companies need to ensure accurate data collection and reporting to avoid these penalties. Implementing robust data management systems and working closely with EU importers can mitigate the risk of non-compliance.

Preparing for Financial Implications

Given the significant financial stakes involved, companies must prepare for the full implementation of CBAM by:

- **Investing in Carbon Management:** Implementing systems that accurately track and report carbon emissions is crucial. This will not only ensure compliance but also help in minimizing the number of certificates needed.
- **Engaging in Strategic Planning:** Companies should assess their entire supply chain to identify opportunities for reducing carbon intensity. This could involve adopting cleaner production technologies or sourcing materials with lower embedded carbon.
- **Budgeting for Compliance Costs:** Companies should start budgeting for the purchase of CBAM certificates and any associated compliance costs to avoid unexpected financial burdens when the system fully rolls out in 2026.

The financial implications of CBAM for global companies, particularly those in carbon-intensive sectors like aluminum, are significant. By understanding the potential costs and taking proactive steps to manage emissions, companies can mitigate the financial impact and ensure compliance with CBAM regulations. The next chapter will explore strategies for reducing carbon emissions across the supply chain, helping companies to not only comply with CBAM but also to position themselves as leaders in sustainability.

Data Management Strategies for CBAM Compliance - Leveraging Lythouse's Capabilities

As the Carbon Border Adjustment Mechanism (CBAM) becomes a critical regulatory requirement for companies exporting goods to the European Union, robust data management is essential for compliance. This chapter explores how Lythouse, a comprehensive ESG and carbon management platform, can help companies streamline their data management processes and ensure accurate, timely reporting under CBAM.

1

The Central Role of Lythouse in Data Management

Lythouse is engineered to meet the complex data management needs of global enterprises dealing with CBAM compliance. The platform integrates seamlessly with existing enterprise systems, offering an efficient way to manage carbon data across diverse supply chains and geographies.

Key Features:

- **Automated Data Collection:** Lythouse automates emissions data collection from various sources, minimizing manual efforts and errors.
- **Real-Time Emissions Tracking:** Provides real-time insights into carbon emissions, allowing for continuous monitoring and proactive decision-making.
- **Advanced Analytics and Reporting:** The analytics engine processes extensive data sets to generate ready to use reports, ready for various regulatory submission to EU authorities.

2

Automating Data Collection Across the Supply Chain

Accurate data collection from all relevant sources, including suppliers, is critical for CBAM compliance. Lythouse's automated data collection capabilities streamline this process.

How It Works:

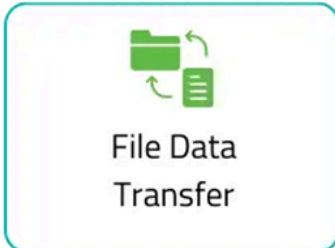
- **Integration with Enterprise Systems:** Lythouse integrates with ERP, CRM, and supply chain management systems, facilitating seamless data flow from various departments.
- **Supplier Collaboration:** The platform's Collaboration Hub enables effective supplier engagement, ensuring comprehensive emissions data collection.

Benefits:

- **Reduced Manual Effort:** Automation cuts down on time and resources needed for data collection and processing.
- **Improved Data Accuracy:** Automated processes minimize human error, ensuring reliable CBAM reporting.



Account

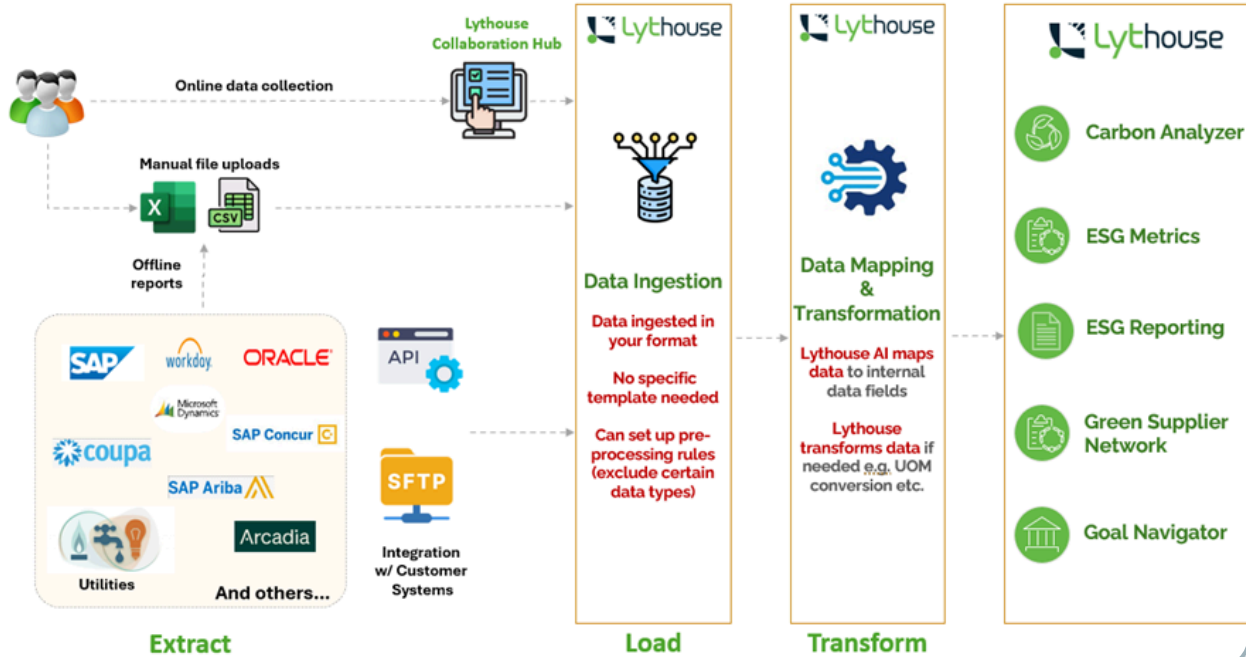


Comply



Transform

Lythouse – Data management simplified



Real-Time Emissions Tracking for Proactive Compliance

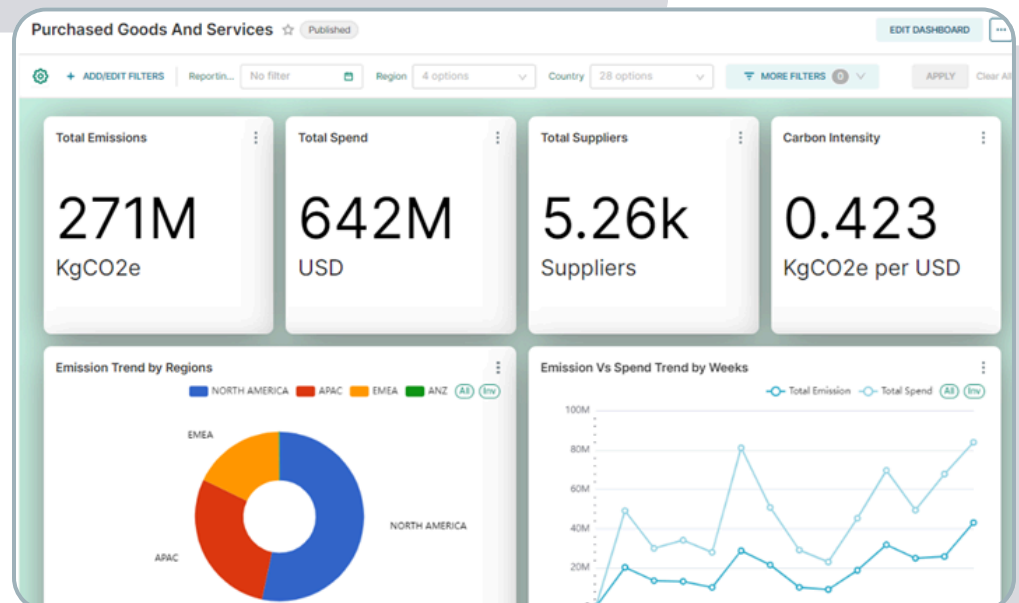
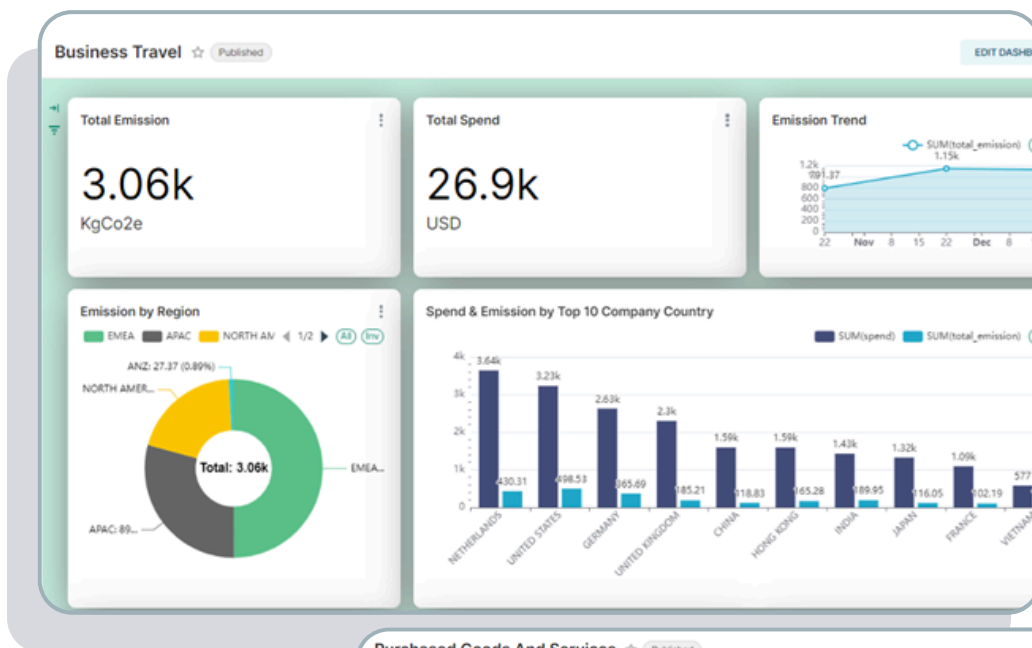
Real-time emissions tracking is vital given the detailed quarterly reports required during CBAM's transitional phase and full compliance by 2026. Lythouse ensures companies stay ahead of these reporting obligations.

Key Capabilities:

- **Dynamic Dashboards:** Customizable dashboards offer real-time visibility into emissions across all operational units.
- **Alerts and Notifications:** The platform alerts users if emissions data is missing or significantly deviates from expected levels, enabling timely interventions.

Benefits:

- **Proactive Management:** Immediate action can be taken if emissions rise unexpectedly, helping maintain CBAM compliance.
- **Enhanced Transparency:** Real-time tracking fosters organizational transparency and better decision-making.



Advanced Analytics and CBAM-Compliant Reporting

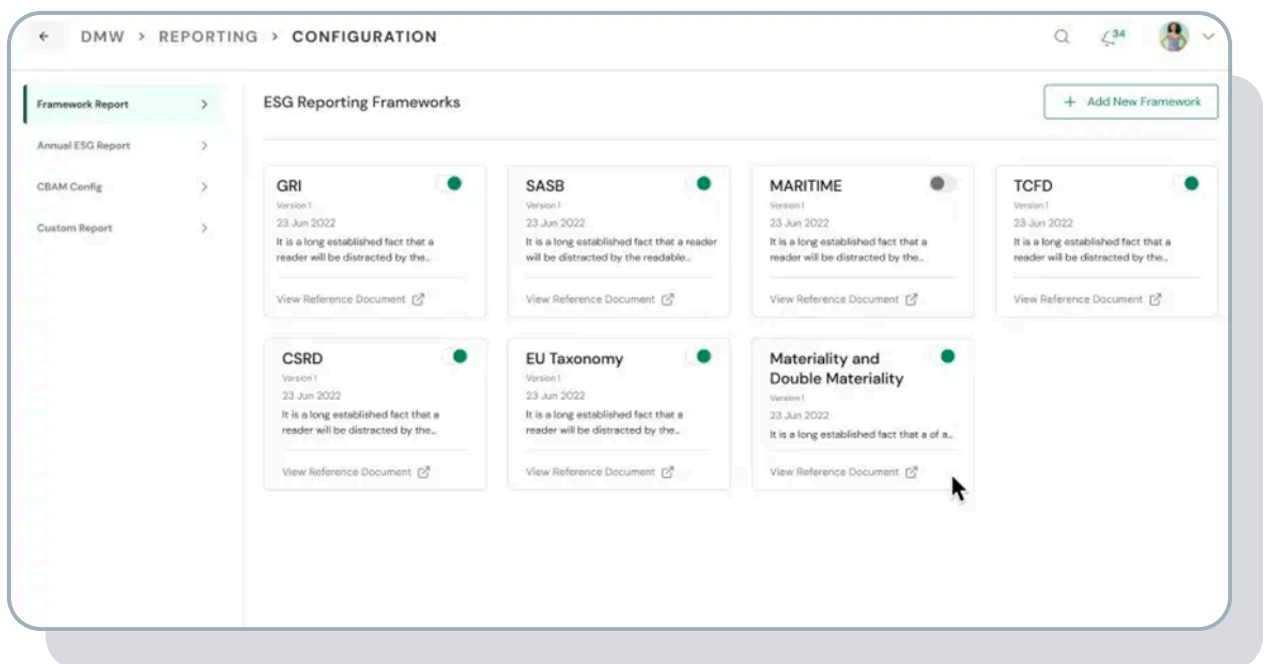
CBAM compliance requires precise and detailed reporting, which Lythouse's advanced analytics capabilities simplify.

How It Works:

- **Data Processing:** Lythouse processes emissions data using industry standards, ensuring that calculations align with CBAM requirements.
- **Automated Reporting:** Generates quarterly and annual reports that can be leveraged for submissions.

Benefits:

- **Time Savings:** Automated reporting eliminates manual data compilation, saving significant time.
- **Compliance Assurance:** Lythouse ensures that reports meet all CBAM requirements, reducing the risk of penalties.



5

Overcoming Data Management Challenges with Lythouse

Lythouse is equipped to handle data management challenges, such as data gaps, inconsistencies, and integration issues, which are common in CBAM compliance.

Addressing Key Challenges:

- **Filling Data Gaps:** The analytics engine identifies missing data and provides solutions to fill these gaps, ensuring complete reporting.
- **Ensuring Consistency:** Data standardization across various sources ensures reliability.
- **Seamless Integration:** Lythouse integrates with multiple data sources and formats, simplifying the consolidation of supply chain information.

Benefits:

- **Complete Compliance:** Lythouse's capabilities ensure fully compliant reports, mitigating the risk of penalties.
- **Streamlined Processes:** Simplified data management leads to more efficient compliance processes.

6

Preparing for Future Compliance Needs with Lythouse

As CBAM regulations evolve, companies must be prepared for potential changes in reporting requirements. Lythouse's adaptable platform ensures long-term compliance.

Future-Proofing Compliance:

- **Scalable Platform:** The architecture supports increasing data volumes and more complex reporting needs as CBAM expands.
- **Regular Updates:** Lythouse is updated regularly to reflect regulatory changes, ensuring ongoing compliance.

Benefits:

- **Long-Term Compliance:** Lythouse helps companies meet current and future CBAM requirements.
- **Adaptability:** The platform scales with your company's operations, accommodating growth and evolving regulations.

Lythouse offers a comprehensive solution for managing the complexities of CBAM compliance. From automated data collection and real-time tracking to advanced analytics and reporting, Lythouse streamlines every aspect of the compliance process, ensuring that companies meet their regulatory obligations efficiently and effectively. Integrating Lythouse into your operations not only achieves CBAM compliance but also enhances overall sustainability efforts.

Embracing the Future with CBAM Compliance and Sustainability

As the Carbon Border Adjustment Mechanism (CBAM) becomes a reality, businesses with global supply chains face both challenges and opportunities. This eBook has provided a comprehensive roadmap for navigating the complexities of CBAM, from understanding its sectoral impacts to implementing effective data management and reducing carbon emissions across supply chains.

CBAM is more than a regulatory requirement; it represents a pivotal shift toward global carbon accountability. By embracing CBAM, companies can not only ensure compliance but also position themselves as sustainability leaders in their industries. Taking proactive steps today to reduce carbon emissions, optimize supply chains, and adopt advanced data management solutions will lead to tangible benefits: reduced operational costs, improved brand reputation, and enhanced long-term competitiveness.

Lythouse stands ready to support your journey toward CBAM compliance and sustainability. Our platform streamlines carbon management, automates emissions reporting, and helps businesses achieve CBAM compliance with ease. Whether you're looking to simplify your emissions tracking, optimize your carbon reporting, or future-proof your supply chain, Lythouse offers the tools and insights you need.

Contact Us Today:

Schedule a consultation or request a product demonstration to discover how Lythouse can support your sustainability goals. Visit our website for more resources and insights into effective emissions management and compliance strategies.