AIST MENA

Member Chapter Webinar

Steel Industry Transformation: From Carbon to Green

CBAM & MENA Steel Industry:

Navigating Change … Sustaining Competitiveness

Organized by

AIST ASSOCIATION FOR IRON & STEEL TECHNOLOGY MENA

Carbon Changes the Trade Equation

For decades, the **steel competitiveness** was usually determined by **cost**, **quality**, and **logistics**.

The **CBAM** now introduces a new factor for competitiveness: **carbon performance**.

The **CBAM** is not simply a **climate policy**; it is a **new market signal** affecting how steel will compete in the global trade, and how carbon is becoming part of the international steel trade competitiveness.

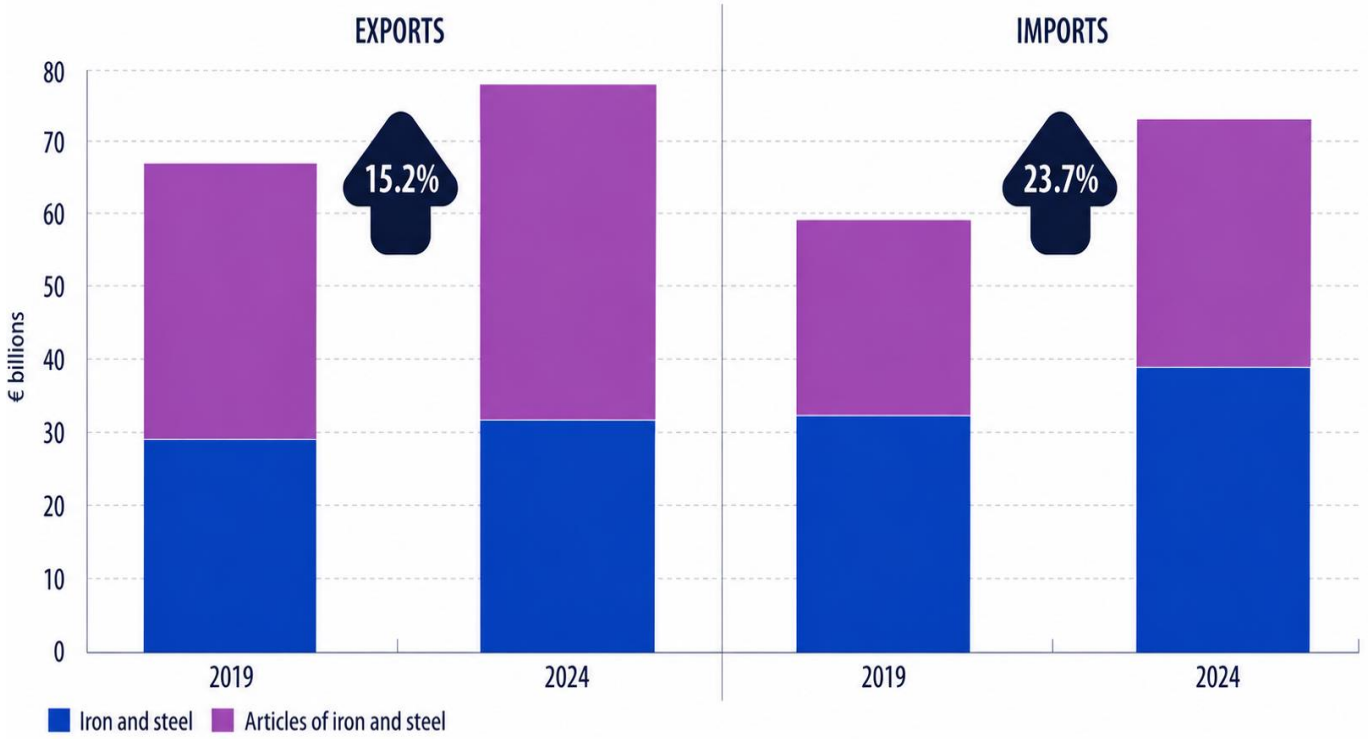
The European Market at Stake

€73.1 Billion

The EU imports of iron and steel products in 2024. (*Eurostat*)

The CBAM matters because it affects access to one of the **world's largest premium steel markets**.

The real issue is about competitiveness in a **€73+ billion** import market.



The Global Steel Industry Under Pressure

1.85 Billion Tonnes

Global crude steel production in 2025. (*WSA*)

670 Million Tonnes

Global steel excess capacity in 2025. (*OECD*)

7 – 9%

Steel industry's contribution to the global CO_2 emissions. (*IEA*)

One Regulation, Different Outcomes

CBAM will not create one outcome for MENA region's exporters. It will create **winners** and **losers**.

The CBAM exposure is driven by **two factors**:

1. The dependence on the EU market.
2. The carbon intensity relative to competitors.

One Regulation, Different Outcomes

The CBAM **relative exposure** varies significantly across the MENA region.

MENA countries with strong EU trade links and higher embedded emissions face the greatest challenge.

Other MENA countries may improve their competitive position if they can demonstrate lower-carbon production.

Country	Main Exposure Driver	Exposure
Türkiye	Large steel exports to EU	Very High
Egypt	Strong dependence on EU demand	High
Algeria	Growing steel & DRI exports to EU	Moderate
Morocco	Lower carbon intensity	Low
GCC	Lower direct steel export exposure	Low

Sources: *The World Bank & ESCWA.*

One Regulation, Different Outcomes

Türkiye

Türkiye is the **largest** crude steel producer in Europe and MENA region and the **7th** globally with **38.1 Mt** of crude steel production in 2025. (WSA)

Türkiye's steel industry is **predominantly EAF-based**, with approximately **72%** of crude steel output produced via EAF routes and only **28%** via integrated **BF-BOF** production route. (*TÇÜD*)

The current Turkish steel production structure gives it a significantly lower carbon footprint. However, Türkiye is widely considered the **most CBAM-exposed economy** in the MENA region due to its **deep integration with EU markets**. Turkish steel exports to the EU are estimated at approximately **USD 7.5 billion** annually, making the country one of the most exposed trading partners under the mechanism.

One Regulation, Different Outcomes

Saudi Arabia

Saudi Arabia is the **third-largest** producer in the MENA region and the **18th** globally with approximately **10.8 Mt** of crude steel production in 2025. (WSA)

The Saudi steel industry is **predominantly gas-based DRI-EAF-based**, providing one of the cleanest and lowest-carbon production routes in the MENA region.

Saudi Arabia possesses one of the world's largest concentrations of **gas-based DRI capacity** and is actively positioning itself as a future producer of low-carbon and hydrogen-based steel.

Although direct CBAM exposure is currently **limited** due to **lower dependence on EU steel exports**; but CBAM is expected to become increasingly relevant for Saudi steel producers seeking access to premium European markets. (WBG & OECD)

One Regulation, Different Outcomes

Egypt

Egypt is the **fourth-largest** crude steel producer in MENA region and the **19th** globally with **10.6 Mt** crude steel production in 2025. It is also one of MENA's leading steel exporters to the EU. (WSA)

Egypt's steel industry is **completely EAF-based**, providing one of the cleanest and lowest-carbon production routes in the MENA region. Moreover, Egypt possesses one of the largest Gas-based, DRI-based steel industries. (WBG & MIDREX ®)

Egypt is among the most exposed MENA economies to CBAM, with estimated exposure approaching **0.2%** of its nominal GDP. The Egyptian CBAM-covered exports to the EU are approximately **42%** of Egypt's total CBAM-covered exports, highlighting the strategic importance of CBAM compliance for Egyptian exporters. (WBG & ESCWA)

One Regulation, Different Outcomes

Algeria

The UAE is the **fifth-largest** producer in the MENA region and the **27th** globally with approximately **5.5 Mt** of crude steel production in 2025. (WSA)

The Algeria's steel industry is **predominantly gas-based DRI-EAF-based**, Algeria also possesses abundant natural gas resources that support one of the region's largest and fast-growing DRI industries. (WBG & MIDREX ®)

Although direct CBAM exposure is currently **moderate** due to **growing dependence on EU steel exports**, future competitiveness in European markets will increasingly depend on the ability to demonstrate verified emissions performance and low-carbon production credentials. (WBG & ESCWA)

One Regulation, Different Outcomes

The United Arab Emirates (UAE)

The UAE is the **sixth-largest** producer in the MENA region and the **35th** globally with approximately **3.8 Mt** of crude steel production in 2025. (WSA)

The UAE's steel industry is **predominantly based on DRI-EAF** production route and benefits from **modern production facilities**, making it one of the most carbon-efficient steel industries in the region. (WBG & MIDREX ®)

Although direct CBAM exposure is currently **limited** due to **lower dependence on EU steel exports**; but CBAM is expected to become increasingly relevant for UAE steel producers seeking access to premium European markets. (WBG & OECD)

One Regulation, Different Outcomes

Morocco

Morocco is the **tenth-largest** crude steel producer in MENA region and the **50th** globally with **1.5 Mt** crude steel production in 2025. (WSA)

Morocco's steel industry is **predominantly EAF-based** and benefits from one of the **lowest-carbon electricity systems** in the MENA region, supported by the **large-scale renewable energy investments**. (IEA & Research Square)

The current Moroccan steel production structure gives it a potential competitive advantage under CBAM. Although Morocco's direct exposure to CBAM is currently **low** due to **smaller export volumes**, the country is well positioned to attract future green steel investments targeting the European market. (WBG & Research Square)

Carbon Becomes Cost

Starting from **2026**, the EU importers of steel products will be required to purchase CBAM certificates reflecting the embedded emissions of the imported products. The value of these CBAM certificates will be linked to the EU Emissions Trading System (EU ETS).

EU ETS carbon prices have generally ranged between **€60** and **€100/tCO_2** during recent years, creating a tangible financial impact for carbon-intensive production routes. At an indicative carbon price of **€75/tCO_2**:

Steel Production Route	Embedded Emissions (WSA)	Estimated CBAM Cost
BF-BOF	2.2 tCO_2/t	€165/t steel
DRI-EAF	1.2 tCO_2/t	€90/t steel
Scrap-EAF	0.4 tCO_2/t	€30/t steel

Note: *Illustrative values assuming full CBAM exposure and zero free allocation.*

MENA's Structural Advantage

Unlike many steel-producing regions, MENA region enters the CBAM era from a position of relative strength, as more than **95%** of MENA region's crude steel production is EAF-based.

Production Route	Global	Middle East
BF-BOF	~70%	~5%
EAF	~30%	~95%

MENA starts the decarbonization race ahead of many competitors, as the carbon transition challenge facing it is fundamentally different from Europe, China, or India.

The region does not need to replace blast furnaces. It needs to optimize and decarbonize an already low-carbon steelmaking platform.

The Data Challenge

Low-carbon steel is not enough. It must be **measurable**, **reportable**, and **verifiable**, as the European Commission's CBAM regulations require:

- Installation-level monitoring.
- Product-level emissions calculations.
- Third-party verification.

Even producers with low emissions may face the following if the **actual emissions data** are **unavailable** or **unverifiable**:

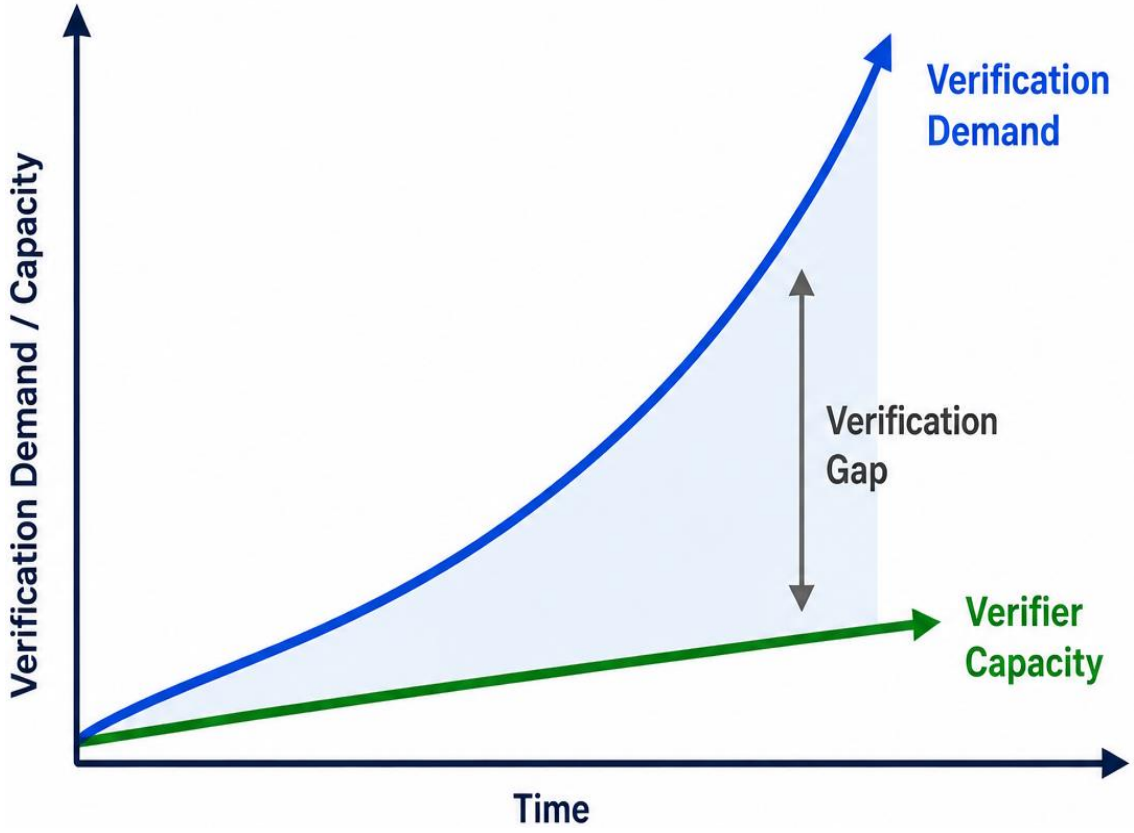
- Reporting risks.
- Verification delays.
- Customer acceptance issues.
- Potential application of punitive **default values** with annual **mark-ups**.

The Verifier Race

As CBAM moves from the **transitional phase** to **full implementation**, verification is becoming a **strategic issue** rather than an **administrative requirement**.

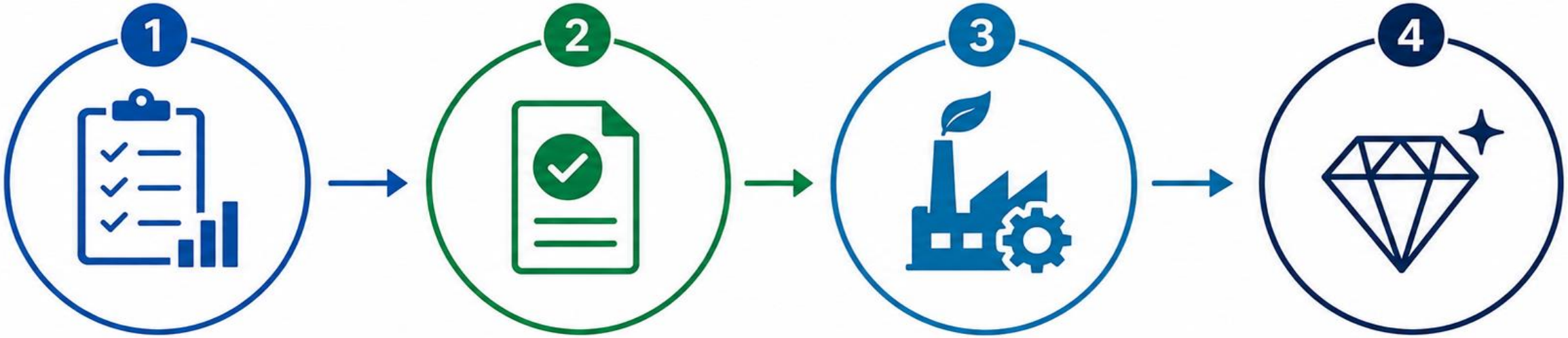
In the CBAM era, companies will **compete** not only for customers and market share, but also for **access to verification capacity**, which may become a **bottleneck**, as **tens of thousands of installations** preparing for CBAM:

- Demand for accredited verifiers is increasing.
- Availability remains limited.
- Early movers will secure priority access.



Strategic Response

Leading steel companies are focusing on:



Emerging Opportunity

CBAM creates **challenges**, but it also creates some market **opportunities** as lower-carbon producers may benefit from:

- Improved carbon-based competitiveness.
- Green steel demand growth.
- Premium market access.

The European steel consumers increasingly require **product carbon footprints**, **verified emissions data**, and **decarbonization roadmaps**.

Future competitiveness will depend on **cost**, **quality**, **logistics**, and increasingly **carbon performance**. CBAM succeeded in introducing carbon into trade economics.

The question is no longer whether CBAM will affect our industry.

The question is how effectively we convert compliance into competitive advantage.