



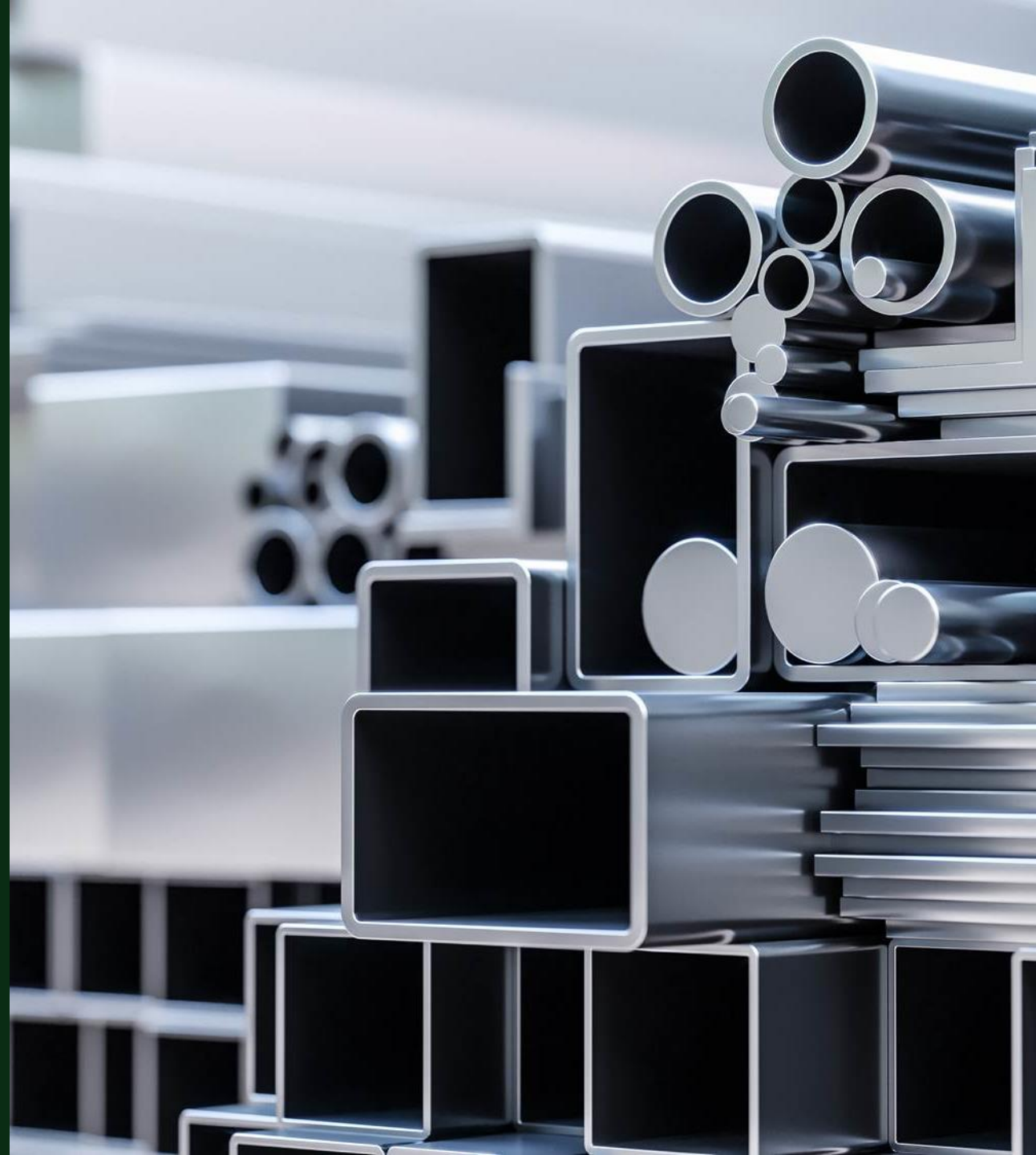
UK CBAM and what it could mean for the Tech Sector

FOR TECH UK, 23RD MAY 2024

DAVID NEILSON – ASSOCIATE TECHNICAL PARTNER, SUSTAINABILITY AND CLIMATE SOLUTIONS, ERM UK

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Verdantix Green Quadrant 2024

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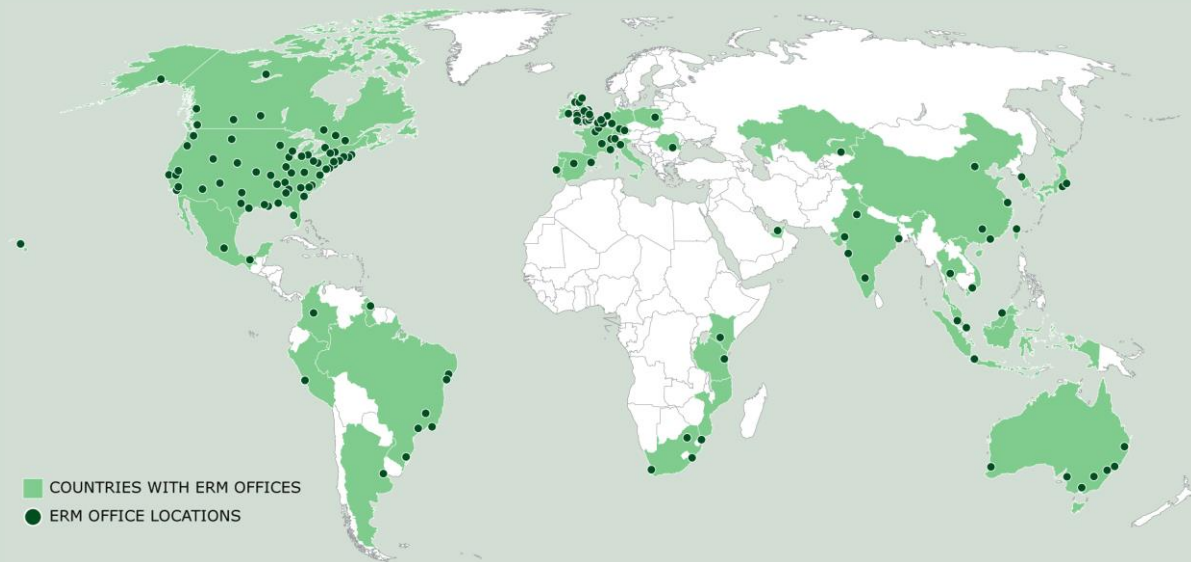
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#1

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CBAMs and Carbon Pricing

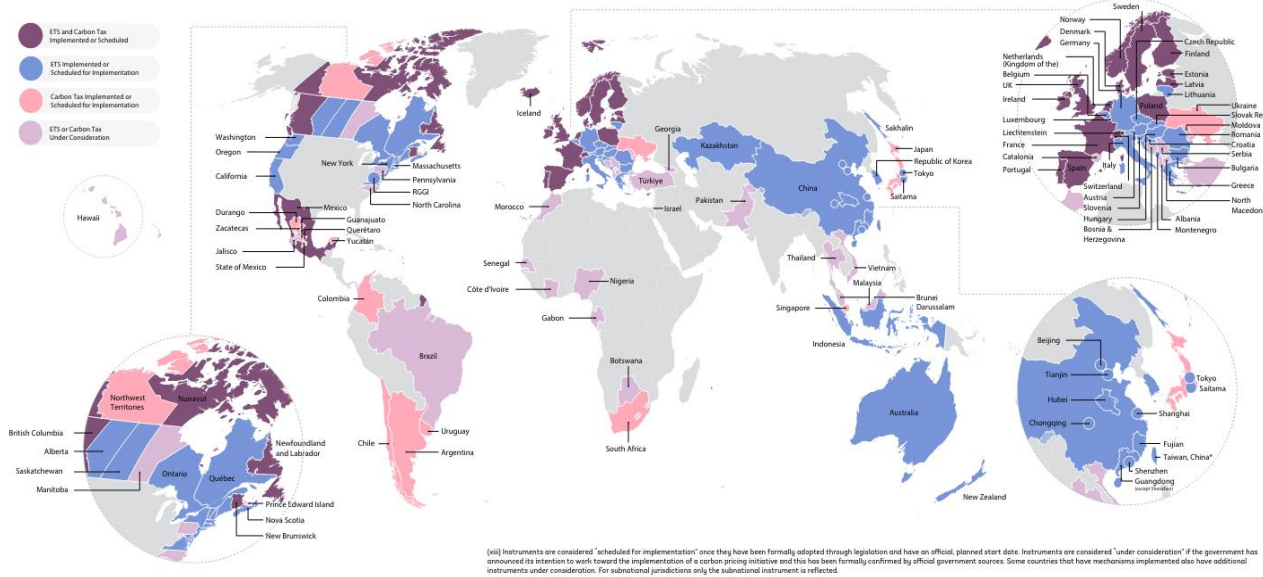
KEY CONCEPTS

Global carbon pricing is becoming the norm, but is it still too cheap?

World Bank estimates a need for carbon pricing >\$120 to limit global warming to 2°C, and \$170-290 to meet 1.5°C

Others have estimated that prices will exceed €150 in 2034 within the EU ETS

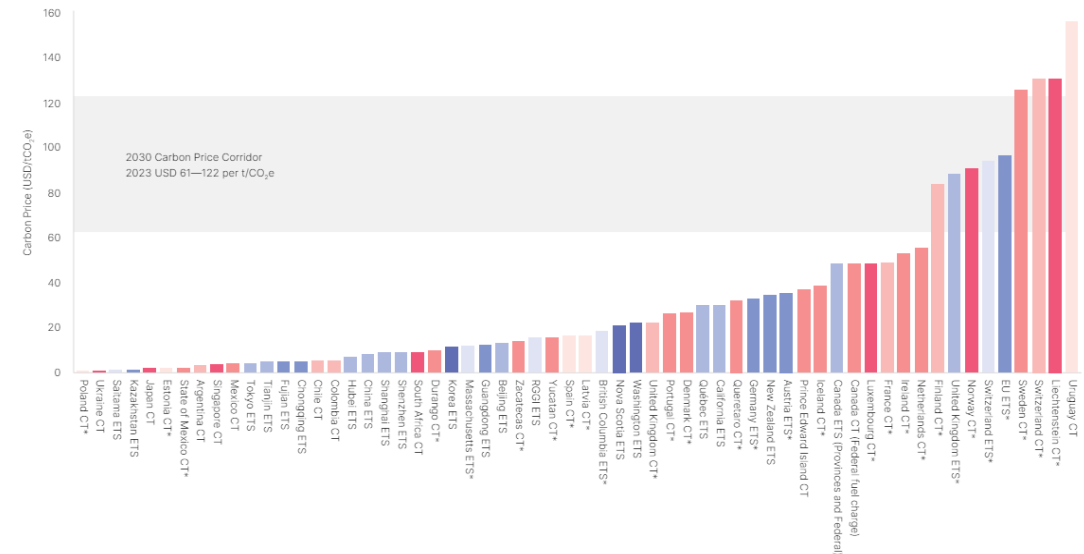
FIGURE 5
MAP OF CARBON TAXES AND ETSs^(vi)



Compliance mechanisms now cover 23% of global emissions, with a range of prices from \$0.07 to >\$150. 2023 revenue estimated at \$95 billion <1% of these are priced at a <2°C scenario

In the last few years EU ETS has peaked at €100, now back to ~ €70
UK ETS has fallen back to ~£40

FIGURE 3
PRICES AND COVERAGE ACROSS ETSs AND CARBON TAXES



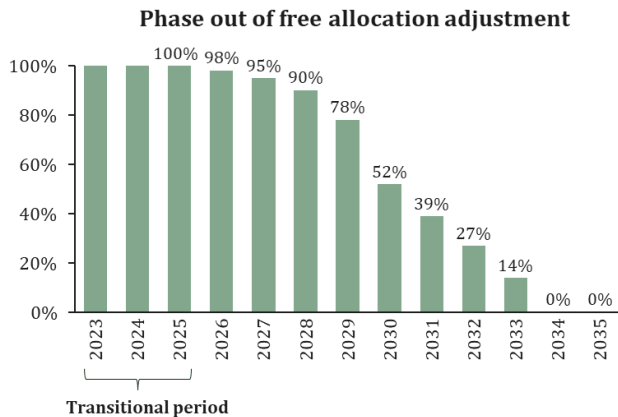
<https://carbonpricingdashboard.worldbank.org/>
World Bank – State and Trends of Carbon Pricing 2023 /Ember-Climate.org

What is a CBAM anyway?

A carbon adjustment price on imported goods based on a reference carbon price

Concept

- The CBAM introduces a “carbon adjustment” on **imports of certain goods to prevent carbon leakage**
- The CBAM adjustment corresponds to the **ETS carbon price** but considers **third country carbon pricing** to ensure a level playing field
- This adjustment will be **phased-in** at the same rate as the **free allocation is phased-out** (EU CBAM phase out by 2034 – UK not yet stated)



Coverage

- High emissions intensity sectors at risk of carbon leakage
- Based on combination of ease of implementation, emissions, carbon leakage potential, existing carbon price coverage
- Eventual growth (both UK and EU) to cover all ETS sectors
- **Does not include** downstream products, e.g., white goods and vehicles (yet!)

Carbon leakage = tendency for production to move to countries with lower emissions constraints, resulting in an overall increase in emissions

The CBAM adjustment paid will depend on the effective UK carbon pricing, the carbon price in the third country and any free allocation

$$\begin{array}{c} \text{Embodied Emissions} \\ \left(\begin{array}{l} \text{Actual embodied} \\ \text{emissions of the} \\ \text{imported product} \\ \text{(tCO}_2\text{e/tonne of product)} \end{array} \times \begin{array}{l} \text{Tonnes of} \\ \text{imported} \\ \text{products} \end{array} \right) \times \left(\begin{array}{l} \text{Effective UK} \\ \text{Carbon price} \end{array} - \begin{array}{l} \text{Obligation paid} \\ \text{in exporting} \\ \text{country} \end{array} \right) = \text{CBAM} \\ \text{adjustment} \end{array}$$

After accounting for emissions covered by
free allocation or other support

Key concept is the “level playing field”
Requires effective carbon pricing concept (net of UK ETS support)

UK Vs EU CBAMs

SIMILAR IN CONCEPT WITH DIVERGENCE IN APPLICATION

UK CBAM essentials – Coverage and quantification

Although UK and EU CBAM have similar aims they differ in application

Coverage

- Aluminium, cement, iron & steel, fertiliser, hydrogen, **ceramics, glass**
- Electricity is **NOT** included **as a CBAM good** (within EU CBAM Scope)

Boundaries & Emissions

- Precursors (e.g. unwrought aluminium) and Complex Goods (e.g. aluminium door frame)
- NOT – scrap, raw materials (bauxite), fuels
- Emissions coverage as per UK ETS – partial PCF or LCA
- Direct emissions and electricity

Emissions quantification

- Preference for actual, verified data
 - Accredited verifiers, UK ETS principles
- Defaults will be available based on global averages
 - likely to be conservative (**EU is deliberately punitive**)



UK CBAM essentials – Coverage and quantification

Although UK and EU CBAM have similar aims they differ in application

Declarations and charging

- Weight of imported goods, and intensity (tonne CO₂e / tonne)
- Free circulation or UK arrival as a CBAM good (even if later transformed)
- Liable person concept
 - Person on whose behalf the goods are imported (or a tax agent)
 - EU – the importer or their customs representative

Phase-in – no transition phase, but 15 months to learn

- 2027 start, first accounting period 1/Jan – 31/Dec
 - Declaration and payment – End May 2028
- 2028-onwards move to quarterly accounting, +1month declaration and payment
 - April – July – October - January

Thresholds

- **£10,000** over a 12-month rolling period
 - Forward expectation or backward looking
 - Total of **all CBAM goods**
 - EU threshold €150 per consignment

Pricing

- Rates per sector (vs EU use of EU-wide ETS price)
- Set at the beginning of the quarter (vs EU weekly price)
- Based on UK ETS price net of any free allocation

$$\frac{\text{Indirect Emissions Price}^* + \text{Direct Emissions Price}^*}{\text{Sector Emissions (direct + indirect)}} = \text{CBAM Rate}$$

Implications for the Tech Sector

Direct and indirect implications

Bluntly put - what will it cost us?

Example Scenario – aluminium cable tray

- Aluminium production in Turkey, imported into the UK by a component producer who then sells in the UK
- CBAM liability will therefore occur on import of the primary aluminium to the UK
- Simplified example
 - Using current EU benchmarks as illustrative examples, without accounting for benchmark decline
 - Assuming 100% cost of electricity-related emissions
 - Current price of aluminium ~£2000 / t

As carbon prices rise and free allocation reduces there is a clear risk of price pass-through to consumers

“greening” the supply chain therefore becomes a transition imperative

Emissions impact – values are all as tCO₂e,

- Benchmark value = 1.464
- Average emissions = 1.681
- Default (direct emissions) = 2.31
- Default (indirect emissions) = 7.5

100% allocation of free allowances, current carbon cost

- Gap (default to benchmark) = $0.846 + 7.5 = 7.717$
- At £40 / t = £333.8/t Aluminium

Zero allocation of free allowances, high carbon cost

- Gap (average to benchmark) = $2.31 + 7.5 = 9.8$
- At £100 / t = £980/t Aluminium

Thank you

For further information, please
contact:

David Neilson
Associate Technical Partner
david.neilson@erm.com