



LA MECANIQUE, MOTEUR
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CBAM

ARGE – September 2023



Carbon Border Adjustment Mechanism

Context

European Climate Policy

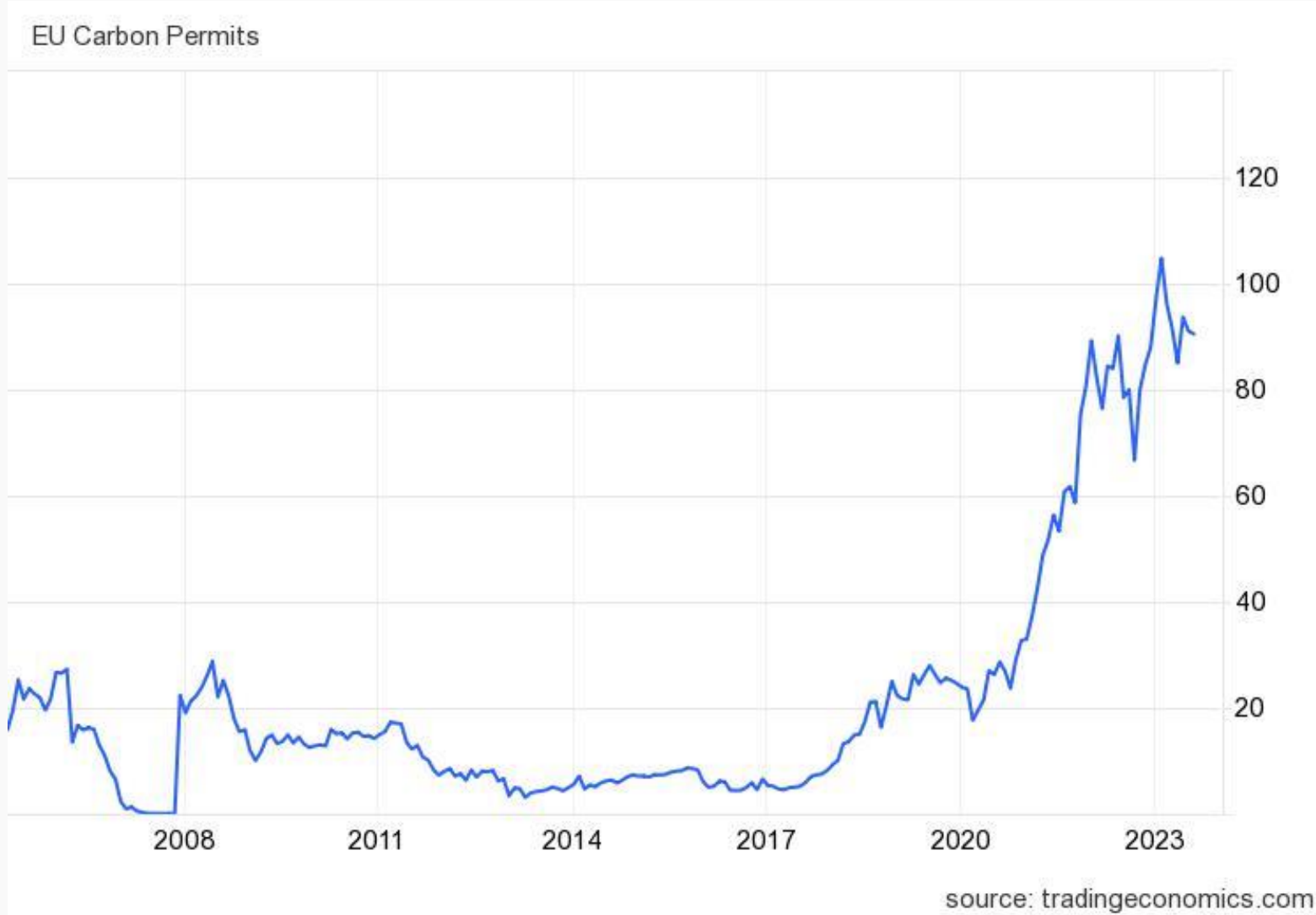
- Commitment to reduce CO₂ emissions, in the context of the Kyoto Protocol (1997)
- Implementation in 2005 of the ETS (Emission Trading Scheme), for emitting industrial sectors (steel, aluminium, cement...)
- Allocation of free quotas to avoid « carbon leakage » (relocations) for sectors exposed to global trade, like steel and aluminium industries

Return on experience of the European Commission

- The free allocation of quotas is not efficient enough to decarbonise these industries, in the context of the objectives set in the framework of the Green Deal (-55% of emissions in 2030 compared to 1990)
- The carbon price does not provide sufficient incentive (between 5€/t and 20€/t over the period 2005-2018)
- Decision to gradually phase out free quotas → ETS revision
- In return, protection of covered sectors against the risk of carbon leakage → implementation of CBAM (steel, aluminium, fertiliser, cement et electricity)

Carbon Border Adjustment Mechanism

Carbon Price



Carbon Border Adjustment Mechanism

Principles

Principles of CBAM

- Payment of carbon content of imported products, based on direct emissions of steel and aluminium
- Nota bene : equivalent extra cost for steel and aluminium produced in the EU, due to the phasing out of free quotas
- Carbon content (scope 1 + precursors)
 - Steel (BF) : approx. 2 tonnes of CO₂/ton, hence an extra cost of 200 to 400 €/ton
 - Stainless steel (EAF) : from 2 to 10 tons of CO₂/ton, depending on the technology
 - Aluminium : approx. 2,5 tons of CO₂/ton

Carbon Border Adjustment Mechanism

Principles

Examples of products submitted to CBAM

CN code	Greenhouse gas
72 – Iron and steel Except: 7202 2 – Ferro-silicon 7202 30 00 – Ferro-silico-manganese 7202 50 00 – Ferro-silico-chromium 7202 70 00 – Ferro-molybdenum 7202 80 00 – Ferro-tungsten and ferro-silico-tungsten 7202 91 00 – Ferro-titanium and ferro-silico-titanium 7202 92 00 – Ferro-vanadium 7202 93 00 – Ferro-niobium 7202 99 – Other: 7202 99 10 – Ferro-phosphorus 7202 99 30 – Ferro-silico-magnesium 7202 99 80 – Other 7204 – Ferrous waste and scrap; remelting scrap ingots and steel	Carbon dioxide
7301 – Sheet piling of iron or steel, whether or not drilled, punched or made from assembled elements; welded angles, shapes and sections, of iron or steel	Carbon dioxide
7302 – Railway or tramway track construction material of iron or steel, the following: rails, check-rails and rack rails, switch blades, crossing frogs, point rods and other crossing pieces, sleepers (cross-ties), fish-plates, chairs, chair wedges, sole plates (base plates), rail clips, bedplates, ties and other material specialised for jointing or fixing rails	Carbon dioxide

Carbon Border Adjustment Mechanism

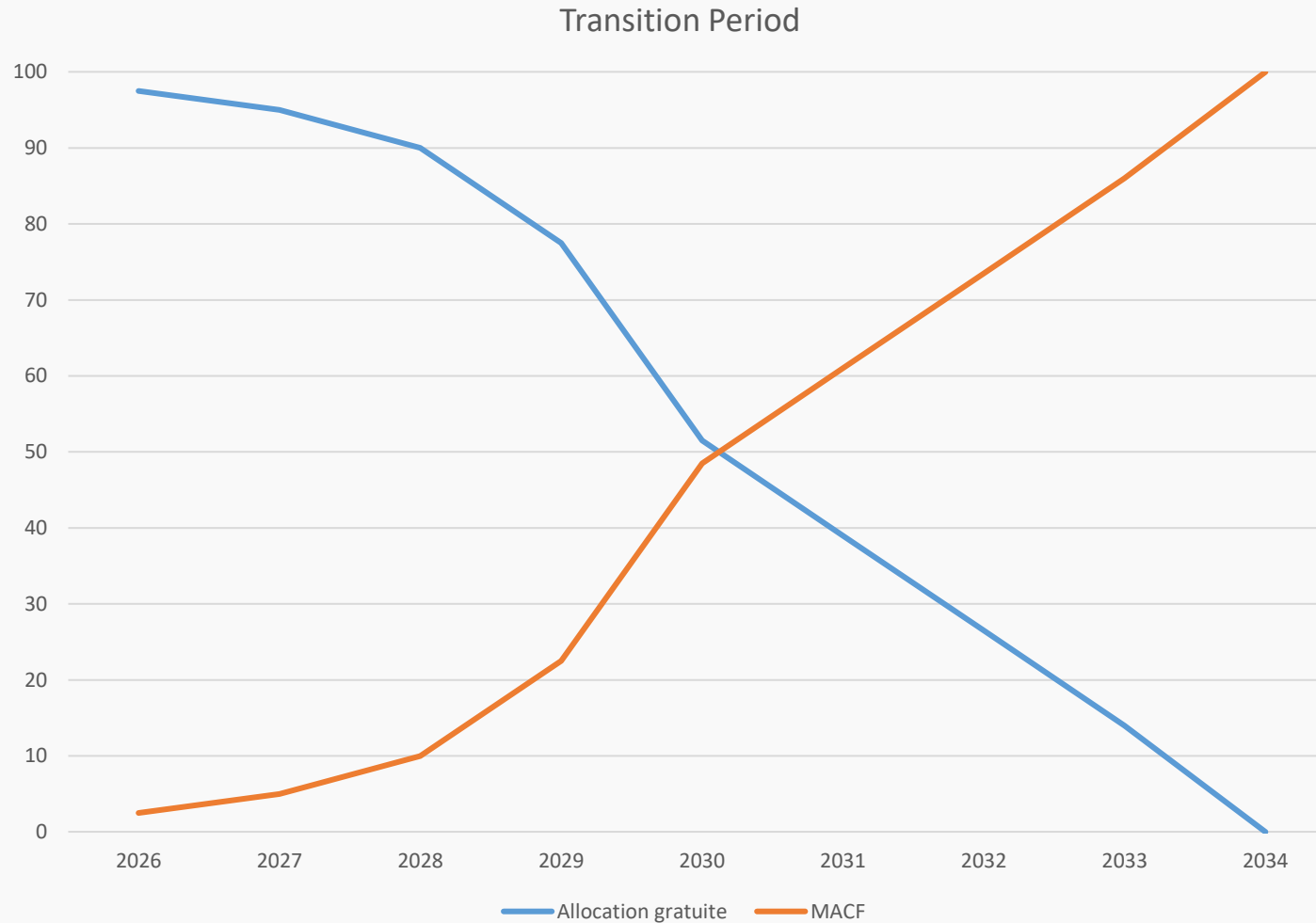
Principles

Examples of products submitted to CBAM

Aluminium	
CN code	Greenhouse gas
7601 – Unwrought aluminium	Carbon dioxide and perfluorocarbons
7603 – Aluminium powders and flakes	Carbon dioxide and perfluorocarbons
7604 – Aluminium bars, rods and profiles	Carbon dioxide and perfluorocarbons
7605 – Aluminium wire	Carbon dioxide and perfluorocarbons
7606 – Aluminium plates, sheets and strip, of a thickness exceeding 0,2 mm	Carbon dioxide and perfluorocarbons
7607 – Aluminium foil (whether or not printed or backed with paper, paper-board, plastics or similar backing materials) of a thickness (excluding any backing) not exceeding 0,2 mm	Carbon dioxide and perfluorocarbons
7608 – Aluminium tubes and pipes	Carbon dioxide and perfluorocarbons
7609 00 00 – Aluminium tube or pipe fittings (for example, couplings, elbows, sleeves)	Carbon dioxide and perfluorocarbons
7610 – Aluminium structures (excluding prefabricated buildings of heading 9406) and parts of structures (for example, bridges and bridge-sections, towers, lattice masts, roofs, roofing frameworks, doors and windows and their frames and thresholds for doors, balustrades, pillars and columns); aluminium plates, rods, profiles, tubes and the like, prepared for use in structures	Carbon dioxide and perfluorocarbons
7611 00 00 – Aluminium reservoirs, tanks, vats and similar containers, for any material (other than compressed or liquefied gas), of a capacity exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	Carbon dioxide and perfluorocarbons

Carbon Border Adjustment Mechanism

Phasing out of quotas vs CBAM implementation



Carbon Border Adjustment Mechanism

Impacts

Impacts of ETS revision and CBAM implementation

- Increase of the cost of aluminium and steel purchased in the EU
- Downstream products
 - Increase of the cost of products manufactured in the EU and containing steel and aluminium
 - Transfer of the risk of carbon leakage from upstream to downstream activities due to lower competitiveness in global markets

Carbon Border Adjustment Mechanism

Impact of the extra cost on added value

Example of a mechanical component (data at NACE level, 4 digit)

- Value of the metal vs. turn over : 43 %
- Added value : 27 %
- Cost of steel : 1 500 € / ton
- Extra cost : 200 € / ton
- Extra cost : + 13% [200 / 1 500]
- Extra cost vs. turn over : 5,6 % [13 / 43]
- Extra cost vs. added value : 20% [5,6 / 27]

ETS criteria (ETS 3)

- Risk of carbon leakage if :
 - Extra cost > 5% and
 - Trade intensity > 10%

Carbon Border Adjustment Mechanism

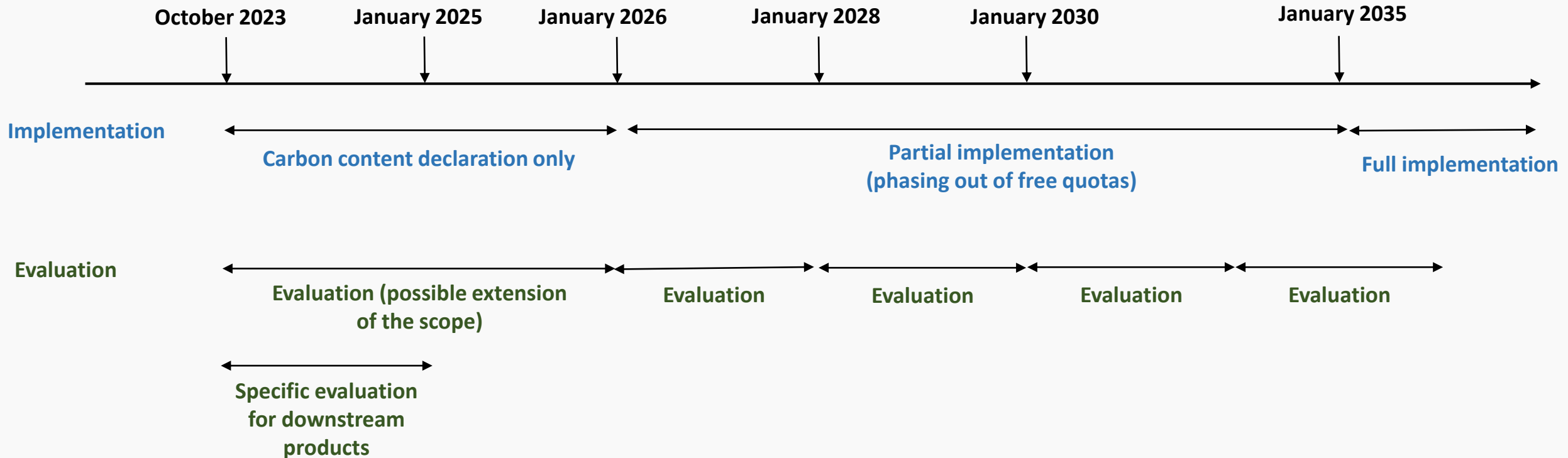
Impacts

How to protect downstream industries ?

- Add downstream products in the scope of CBAM
- Nota bene : there is still a gap in terms of competitiveness on global markets (outside EU)

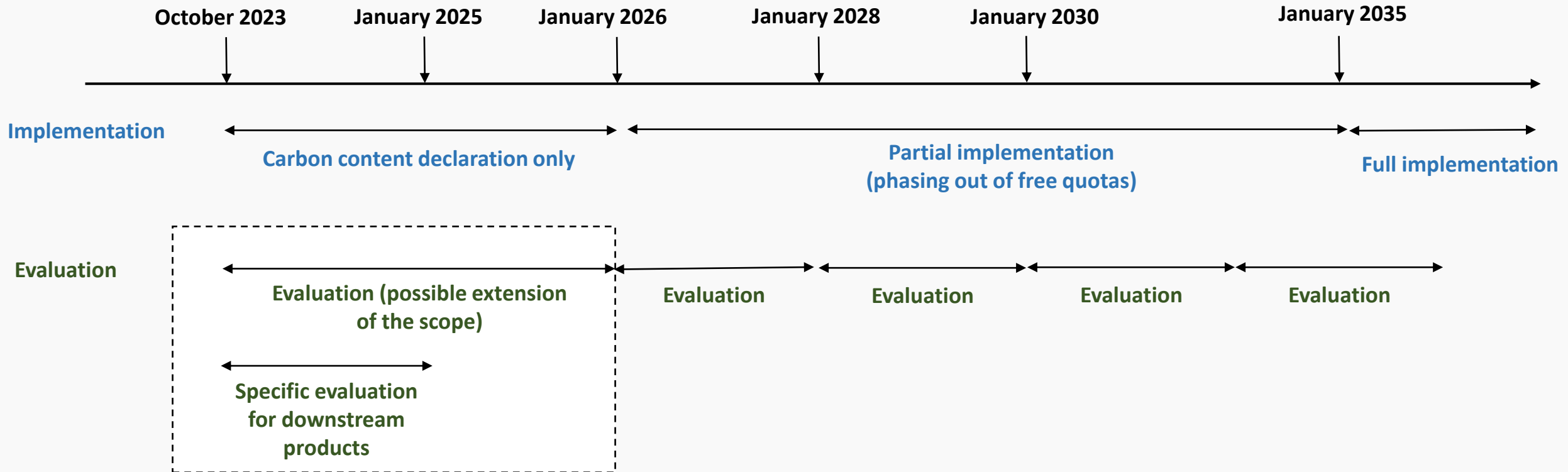
Carbon Border Adjustment Mechanism

Implementation



Carbon Border Adjustment Mechanism

Implementation



Carbon Border Adjustment Mechanism

Implementation

Specific evaluation for downstream products

- Article 30.3 of CBAM Regulation

« At least one year before the end of the transitional period, the Commission shall present a report to the European Parliament and to the Council that identifies products further down the value chain of the goods listed in Annex I that it recommends to be considered for inclusion within the scope of this Regulation. To that end, the Commission shall develop, in a timely manner, a methodology that should be based on relevance in terms of cumulated greenhouse gas emissions and risk of carbon leakage »

- Methodology [ETS 4]

$$\left(\frac{\text{Exports+Imports}}{\text{EU market size+imports}} \right) \times \frac{\text{Emissions intensity (kg CO}_2\text{)}}{\text{Gross value added (€)}} \geq 0,2$$

Carbon Border Adjustment Mechanism



Key messages

- CBAM has an adverse effect on downstream industries, with a risk of carbon leakage (relocation)
- There is an open window between now and the end of 2024 to add downstream products in CBAM
- Necessity to convince :
 - Downstream sectors (components / machinery) of the adverse effects of CBAM
 - Member States and the Commission regarding downstream products
- No obvious solution for markets outside the EU