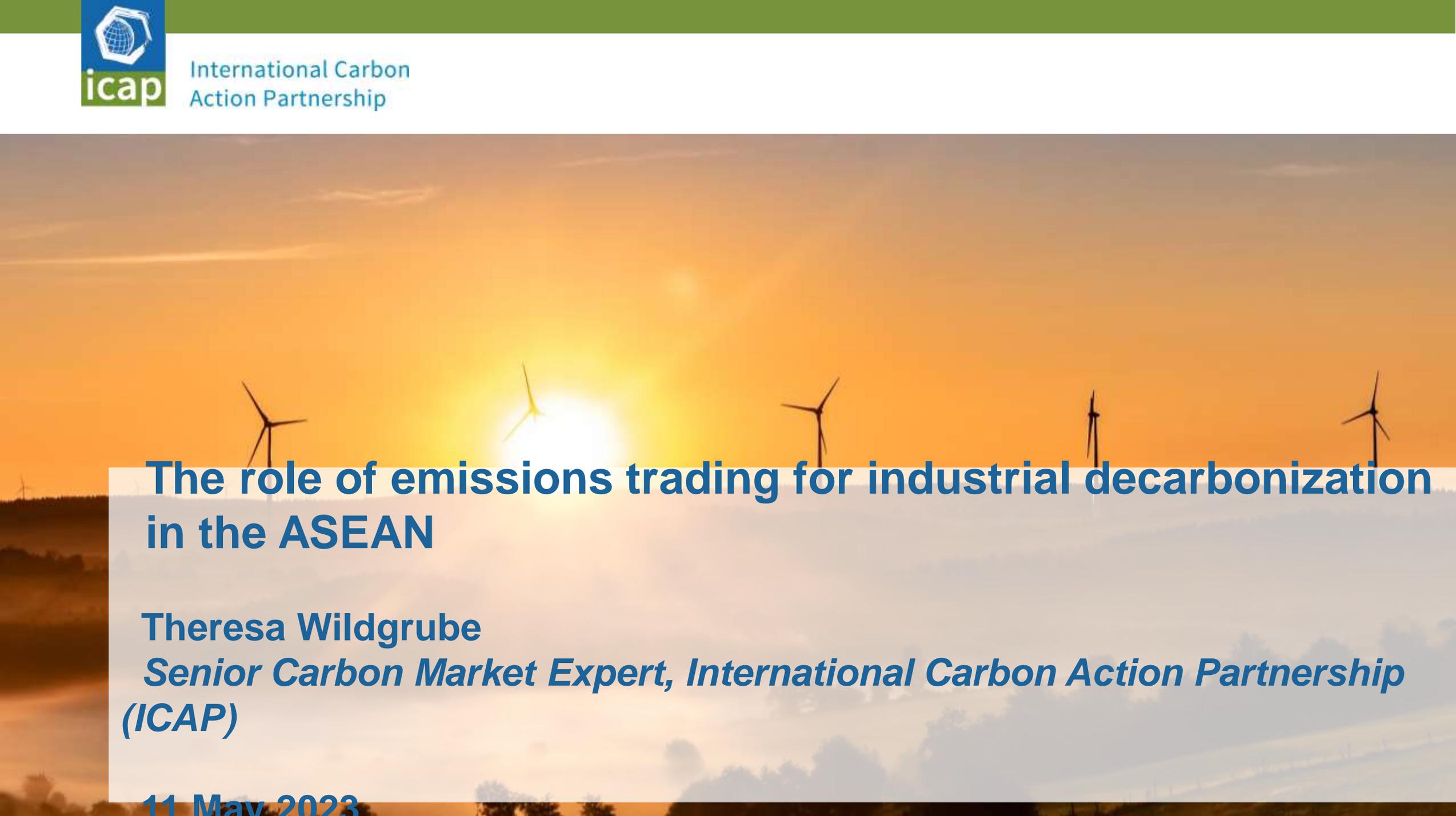




International Carbon
Action Partnership

The background of the slide is a photograph of several wind turbines silhouetted against a bright, orange-hued sunset sky. The sun is positioned centrally behind one of the turbines, creating a lens flare effect. The overall scene is peaceful and represents clean energy.

The role of emissions trading for industrial decarbonization in the ASEAN

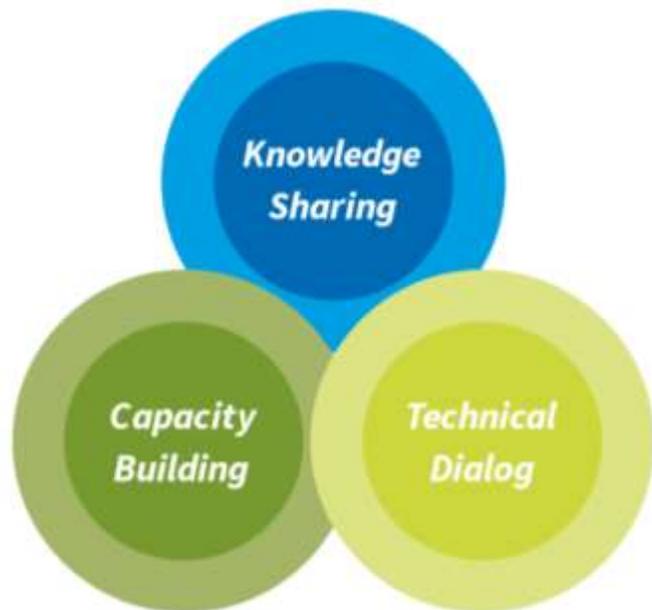
Theresa Wildgrube
*Senior Carbon Market Expert, International Carbon Action Partnership
(ICAP)*

11 May 2023

About the International Carbon Action Partnership

An international **forum** of **40 national & subnational** governments to **exchange** knowledge and experiences on emissions trading systems **(ETS)**

- Share **best practice** & learn from each others' experiences
- Facilitate **development and improvement** of carbon markets
- Explore **opportunities** for **collaboration** in decarbonization



Agenda

- **Role of ETS for industrial decarbonization**
- **ETS worldwide**
- **ETS in ASEAN countries**

Carbon pricing in the climate policy mix

- Carbon pricing should be the **basis to any climate policy** strategy.
- It can provide a **cross-sectoral economic signal** for firms and households to reduce their emissions and invest in low-carbon alternatives.
- Carbon pricing should **be complemented by other sector-specific policies** to overcome barriers to reduce emissions.

Command-and-control regulation:

- Technology standards
- Performance standards
- Prohibition or mandating of certain products or practices
- Reporting requirements

Technology support policies:

- Subsidies for emission reduction activities
- Public and private RD&D funding
- Public procurement
- Feed-in tariffs
- Public investment in clean energy infrastructure

Information and voluntary approaches:

- Rating and labelling programs
- Public information campaigns
- Education and training

Carbon pricing (ETS or carbon tax)

Emissions trading versus carbon taxes



Carbon tax

- Government sets the price of emissions by setting a tax rate
- Firms and households pay the tax for each ton CO₂ emitted
- Provides a **predictable carbon price**, but less certainty about the overall emissions
- Simple design and application
- More suitable for vulnerable sectors (households and small enterprises), large number of regulated entities, and smaller jurisdictions



Emissions trading

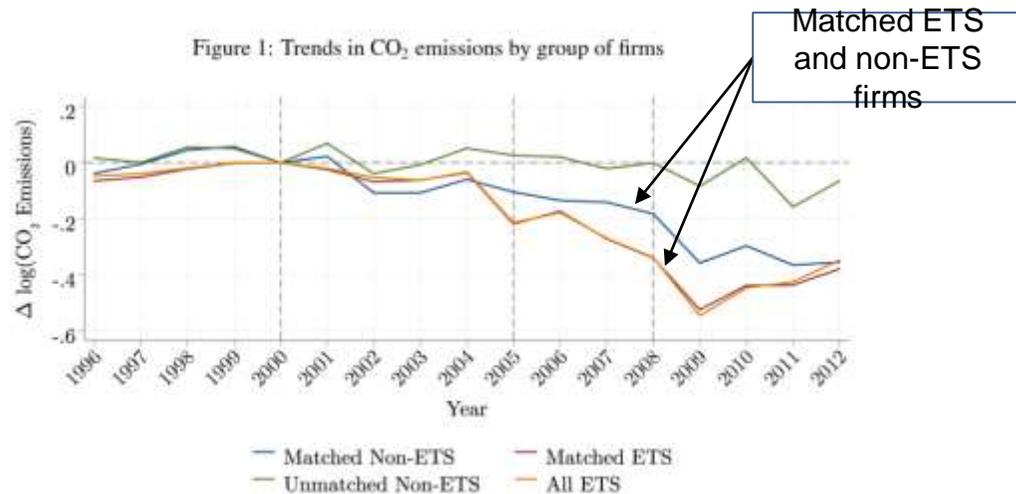
- Government sets a cap that limits the total emissions allowed
- Provides **certainty to meet a mitigation target**, but less certainty about the price
- Regulated entities need to buy emissions allowances in auctions or on the secondary market or receive them for free from the regulator
- ETS design can be complex with e.g. sophisticated trading products or price stabilization mechanisms

→ Any type of carbon pricing is good because 1) it forces firms to internalize the cost of and track their emissions and 2) emissions reduction takes place where costs are lowest → Carbon pricing is fair and efficient.

Effectiveness of emissions trading

Evidence from the French manufacturing sector

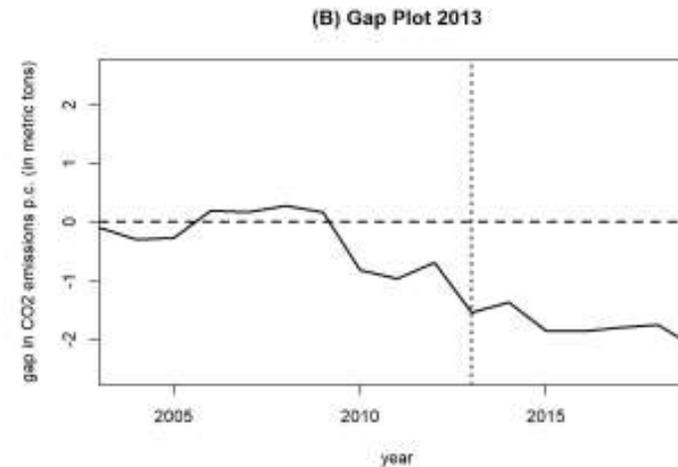
- Firms regulated by the EU ETS reduced emissions significantly compared to their matches outside the EU ETS



Source: Colmer et al. (2022), <https://ssrn.com/abstract=4026889>

Evidence from the California Cap & Trade System

- Emissions decreased by 0.9 % per year compared to the counterfactual
- 6.2% in electricity sector, 1.4% in buildings.

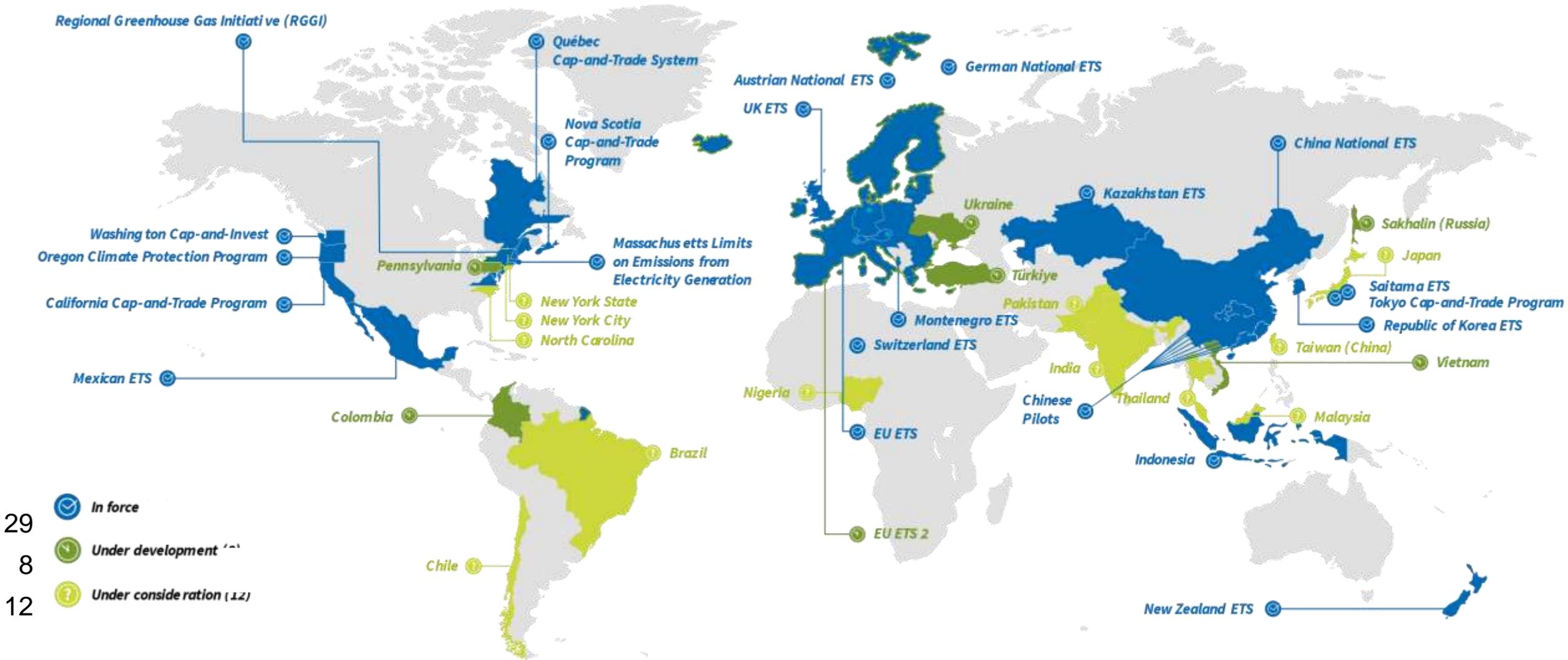


Source: Kramer/Leßmann (2023), https://mpra.ub.uni-muenchen.de/116796/1/MPRA_paper_116796.pdf

Agenda

- **Role of ETS for industrial decarbonization**
- **ETS worldwide**
- **ETS in ASEAN countries**

ETS worldwide



29
8
12

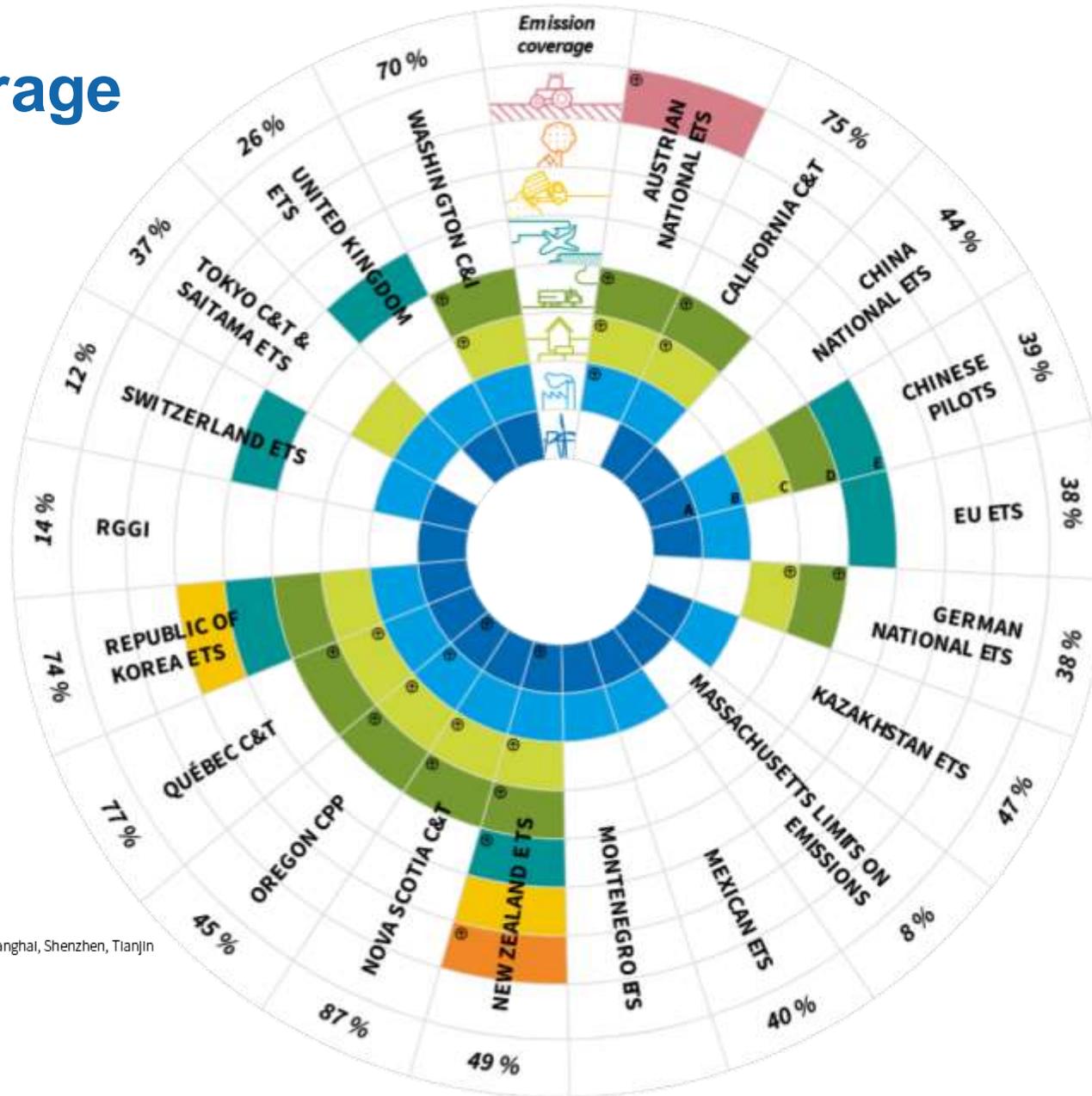
Source: ICAP Status Report 2023.

Sectoral coverage



- A** The Fujian ETS covers the electricity grid
- B** Beijing, Chongqing, Fujian, Guangdong, Hubei, Shanghai, Shenzhen, Tianjin
- C** Beijing, Shanghai
- D** Beijing, Shanghai, Shenzhen
- E** Fujian, Guangdong, Shanghai

↑ Indicates which sector is covered upstream



Most systems cover emissions from power and industry

The sectoral coverage of several ETSs expands to other sectors as well

The share of emissions covered and the point of regulation varies across systems

Agenda

- **Role of ETS for industrial decarbonization**
- **ETS worldwide**
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ETS in ASEAN member states



- ✓ **Regional cooperation** could help establishing necessary **trading and MRV infrastructure** for emissions trading.
- ✓ ASEAN countries could set up a **joint ETS** (like the EU ETS) or **link their systems** (like California and Québec).

Indonesia – ETS in force

- Mandatory, intensity-based emissions trading system launched in February 2023
- Covers 99 coal-fired electricity plants (81.4% of installed capacity in IDN), plans for expanding to other electricity plants from 2025
- Preceded by a voluntary pilot from 2021

Thailand – ETS under consideration

- Thailand runs a voluntary ETS (T-VETS) pilot project, building capacity for emissions MRV and allowance trading

Malaysia – ETS under consideration

- Plans to develop a domestic ETS, after successfully establishing a voluntary carbon market (trading platform launched in December 2022).

Vietnam – ETS under development

- “Law of Environmental Protection” (2021) establishes a mandate for a domestic ETS; sectors initially covered: steel, cement, and electricity
- Roadmap in Decree 06/2022/ND-CP: voluntary pilot ETS from 2026, fully operational ETS by 2028

Both **Indonesia and Vietnam will receive support** for the ETS development under the World Bank’s **Partnership for Market Implementation (PMI)**.

Takeaways

- Carbon pricing is an **effective and efficient way to reduce emissions**, especially in the industrial sector.
- Many jurisdictions have a carbon pricing instrument in place: **29 ETSs and 36 carbon taxes**.
- The announcement of the **EU CBAM created momentum for more carbon pricing** instruments being considered worldwide. Domestic carbon pricing allows countries to redirect payments for CBAM to domestic revenues.
- Introducing domestic carbon pricing is not only a way to deal with CBAM but to put emission-intensive industries on a **path towards climate neutrality**.
- The forum of ASEAN could help member states to achieve **regional cooperation on introducing a joint or linked ETS**.

Thank you



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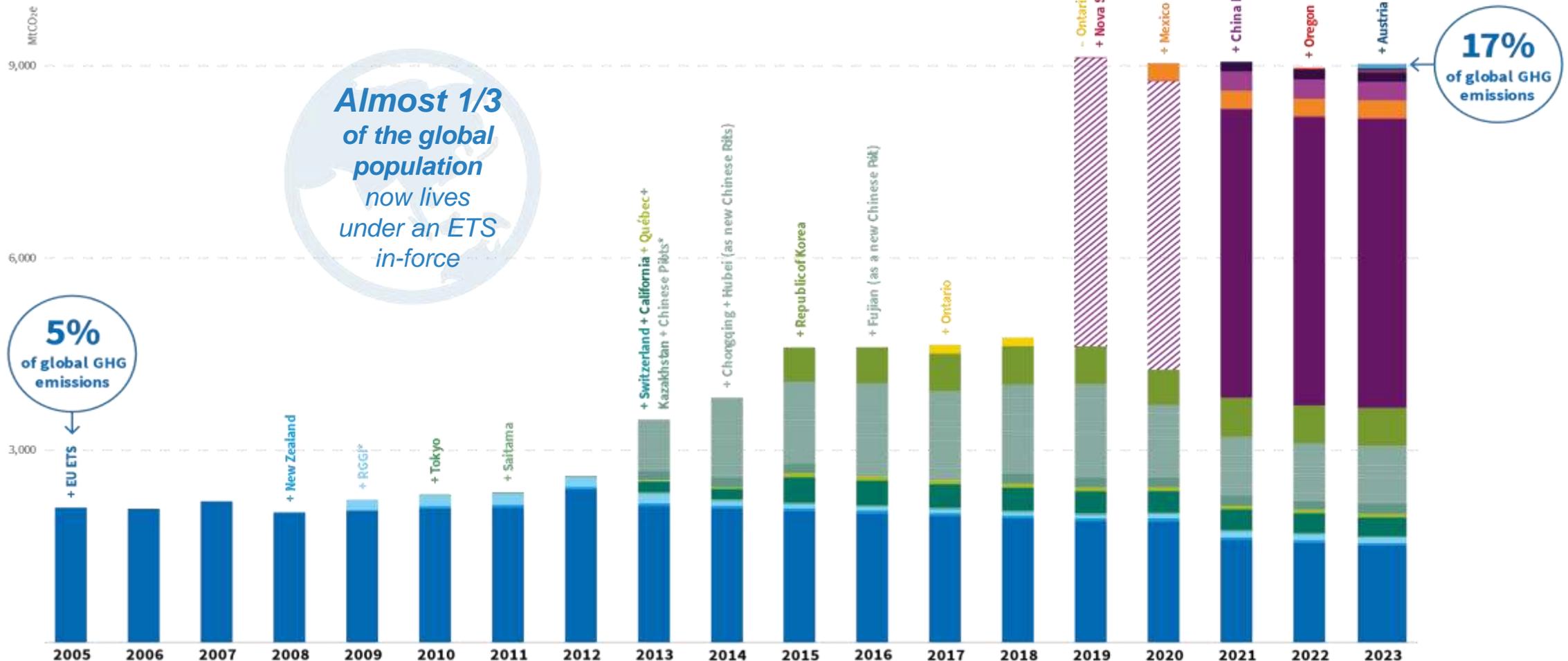
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Global expansion of ETS

The number of ETS systems in force grew from 25 to 28

Jurisdictions making up 55 % of global GDP are using emissions trading



Allowance price developments

Allowances prices in most systems ended 2022 largely unchanged

This follows significant price gains and record levels over the last 3+ years

