

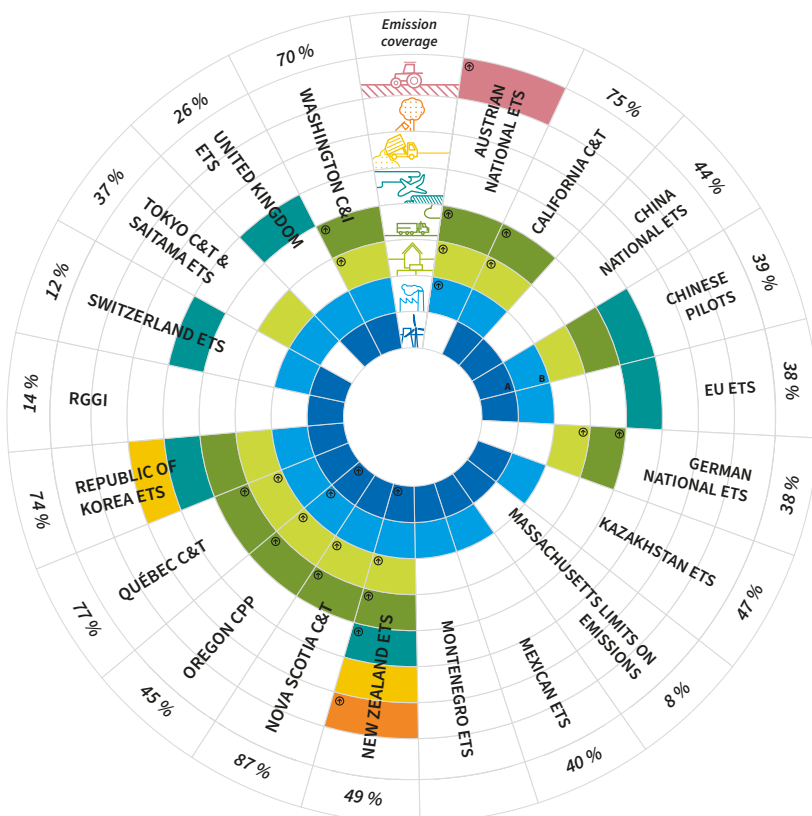
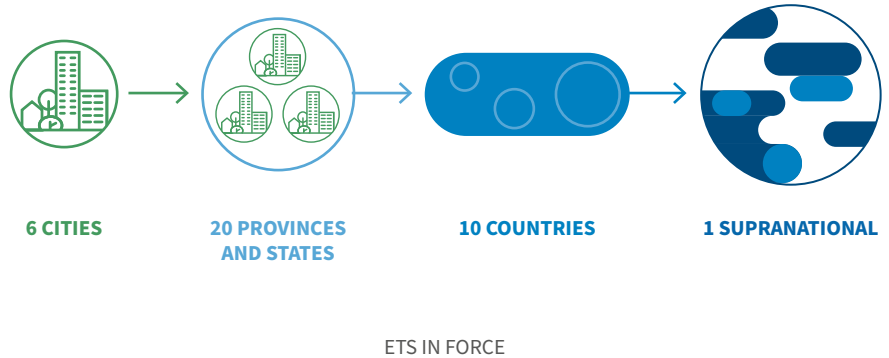
## EMISSIONS TRADING AROUND THE WORLD

An emissions trading system (ETS) is a market-based instrument that can be used to reduce greenhouse gas (GHG) emissions. The government determines a limit (cap) on total emissions in one or more sectors of the economy and issues allowances according to this limit. Companies in these sectors need to hold one allowance for every tonne of emissions they release. They may receive these allowances for free from the government or buy them in auctions organized by the government. Emissions trading is spreading around the world as a key instrument to cost effectively decarbonize economies.



### Emissions trading is spreading around the world

The first major ETS for GHGs – the European Emissions Trading System (EU ETS) – was established in 2005. To date, there are 29 ETSs in force at the supranational, national, and subnational levels, with 20 more under development or consideration. Jurisdictions making up 55% of global GDP are using emissions trading. Emissions trading has emerged as a key instrument to cost effectively decarbonize economies.



### Sectors covered by ETS across systems

Design features differ between systems, as do the GHGs and economic sectors they cover. While most systems typically cover the industrial and power sectors, an ETS can also be designed to reduce emissions in other sectors of the economy. Emission coverage, i.e., the share of the jurisdiction’s GHG emissions covered under the ETS, will also vary between systems.

- Agriculture 
- Domestic Aviation 
- Industry 
- Forestry 
- Transport 
- Power 
- Waste 
- Buildings 

For further explanation and details, see the ICAP Status Report 2023. © indicates which sector represents upstream coverage.

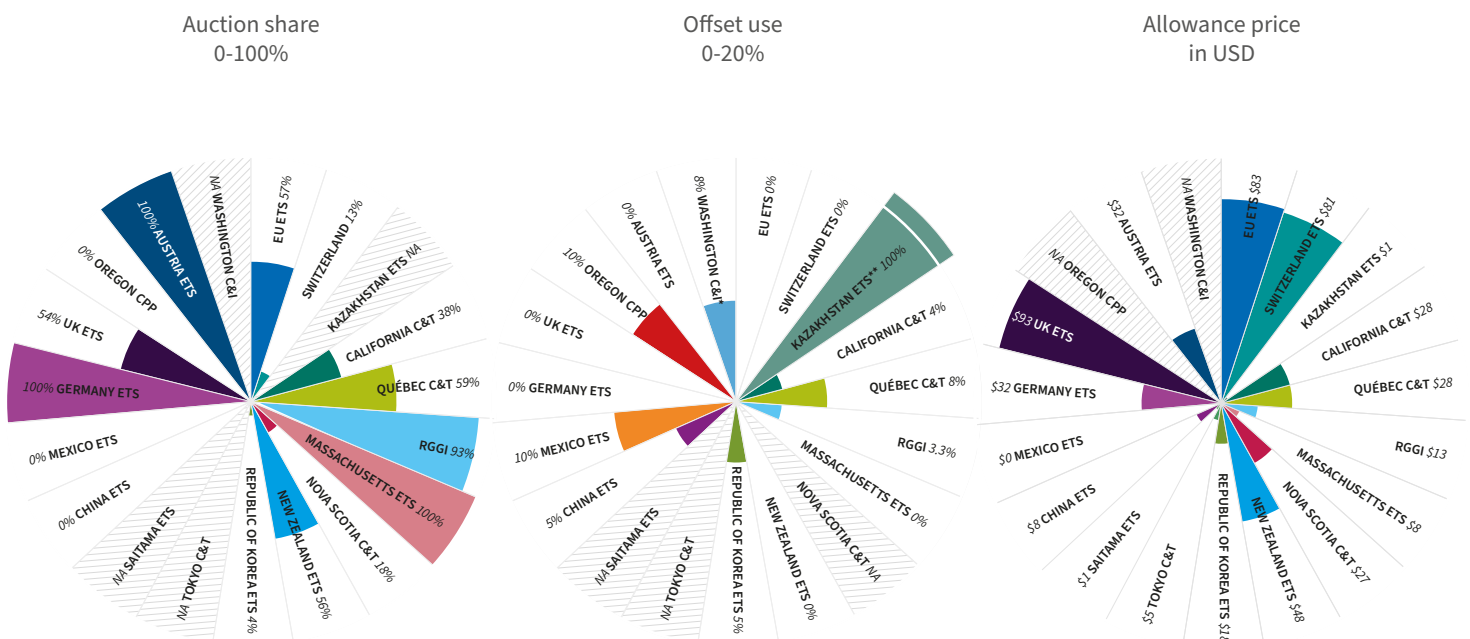
## Different shapes of ETS

Governments can tailor ETS design to suit local conditions, so that each system presents its own unique approach to emissions trading.

In an ETS, the government can distribute emissions allowances for free, auction them, or combine both approaches. In the figure below, the auction share is expressed as a share of the 2022 cap and denotes the share of allowances that were auctioned and generated revenues for the jurisdiction's government. See ICAP ETS Brief #5 for further details on auctioning as a way of allocating allowances.

Allowance prices also vary between different ETSs, and the price level will affect the overall incentive to reduce GHG emissions in the covered sectors. In the figure below, allowance price is measured in USD per metric tCO<sub>2</sub>e and averaged over 2022.

Some governments make use of measures that provide flexibility to the covered entities, such as the use of offset credits. Offset credits represent emissions reductions from activities outside the scope of an ETS. If the use of offset credits is allowed in an ETS, covered entities can use these credits to meet (in most cases a part of) their compliance obligations. In the figure below, offset use indicates the share of a compliance entity's obligations that can be met using approved offset credits. See ICAP ETS Brief #7 for further detail.



\* Up to 5% from projects not located on federally recognized tribal land, plus an additional 3% from projects located on federally recognized tribal land.  
 \*\* The Kazakhstan ETS is represented out of scale in this infographic.

<p><b>Coverage</b> Percentage of jurisdiction's emissions covered under the system (in %).</p> <p><b>Allowance price</b> The weighted average price for allowances across 2022, for one metric tonne of CO<sub>2</sub>e emissions (in USD).</p>	<p><b>Auction share</b> Proportion of allowances that is not allocated for free, but must be acquired either at auction or otherwise (in %).</p> <p><b>Offset use</b> Share of compliance obligation that can be met using approved offset credits.</p>
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## Systems mature and gain resilience with time

The first generation of ETSs have been improved and refined based upon earlier lessons learned. The EU ETS has since its inception undergone major reform, including a tighter cap, a phase-out of free allocation, and the phase-in of a carbon border adjustment mechanism from 2026 for some sectors. Moreover, the EU has decided to introduce a new ETS for buildings, road transport, and process heat in industry, to come into force in 2027. Other systems around the world, from California to New Zealand, have also adopted reforms to strengthen their climate ambitions, provide market stability, and address distributional impacts. These measures were put to the test during the COVID-19 pandemic and the global energy crisis. Despite these challenging circumstances, existing systems have showcased maturity and proved to be resilient to external shocks.

In addition, emissions trading has shown to be a valuable source of revenue, with more than USD 63 billion in auctioning proceeds collected in 2022, thanks to higher allowance prices and an increasing share of allowance allocation from auctioning. Many governments channel these resources into further climate action, subsidizing energy technologies, or supporting low-income households.

### ETS IN PERSPECTIVE

The size of the bubbles gives an estimate of the size of the ETS based on the amount of emissions covered. The bubble is centered at the proportion of the jurisdiction's emissions that are regulated.

