

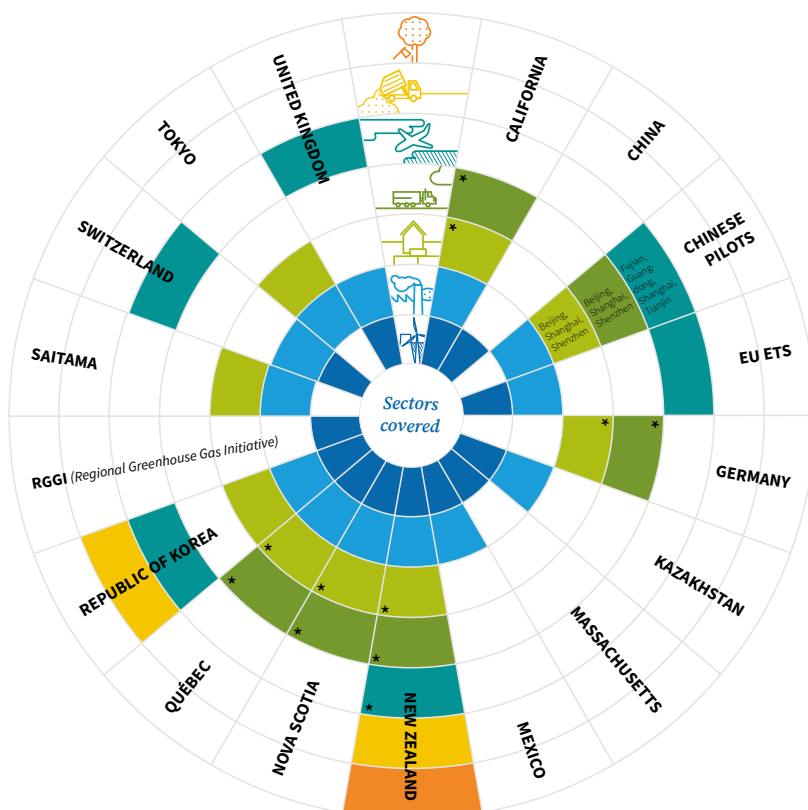
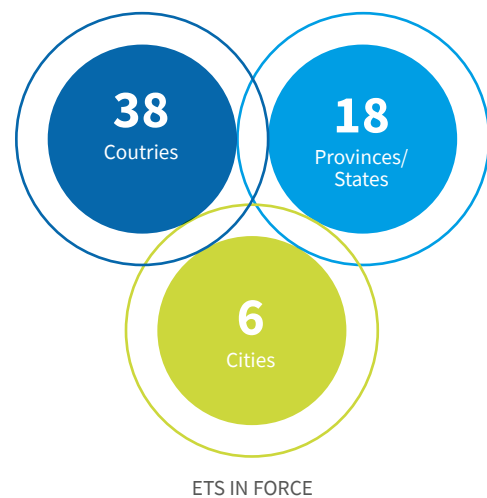
EMISSIONS TRADING AT A GLANCE

An emissions trading system (ETS) is a market-based instrument that can be used to reduce greenhouse gas (GHG) emissions. It works on the principle of ‘cap and trade’. The government imposes a limit (cap) on total emissions in one or more sectors of the economy. Companies in these sectors need to hold one permit for every ton of emissions they release. They may either receive or buy permits, and can trade them with other companies.



Emissions trading spreads worldwide

The first major emissions trading system (ETS) for greenhouse gases – the European Emissions Trading System (EU ETS) – was established in 2005. To date, there are 24 ETSs in place across five continents which produce almost 54 % of global wealth (GDP). With over a dozen more governments considering or having already scheduled an ETS, emissions trading has emerged as a key instrument to cost effectively decarbonize our economies.



Each system is unique

Governments can tailor their ETS to suit local conditions, so each system presents its own unique approach to emissions trading. Currently, systems operate at a range of administrative levels, from megacities such as Tokyo, to U.S. and Canadian provinces, as well as at the supranational level like the EU. Design features differ between systems, as do the greenhouse gases and economic sectors they cover. While most systems currently include the industrial and power sectors, an ETS can also be designed to reduce emissions in other sectors of the economy (see graphic).



For further explanation and details see ICAP Status Report 2021.
* indicates which sector represents upstream coverage

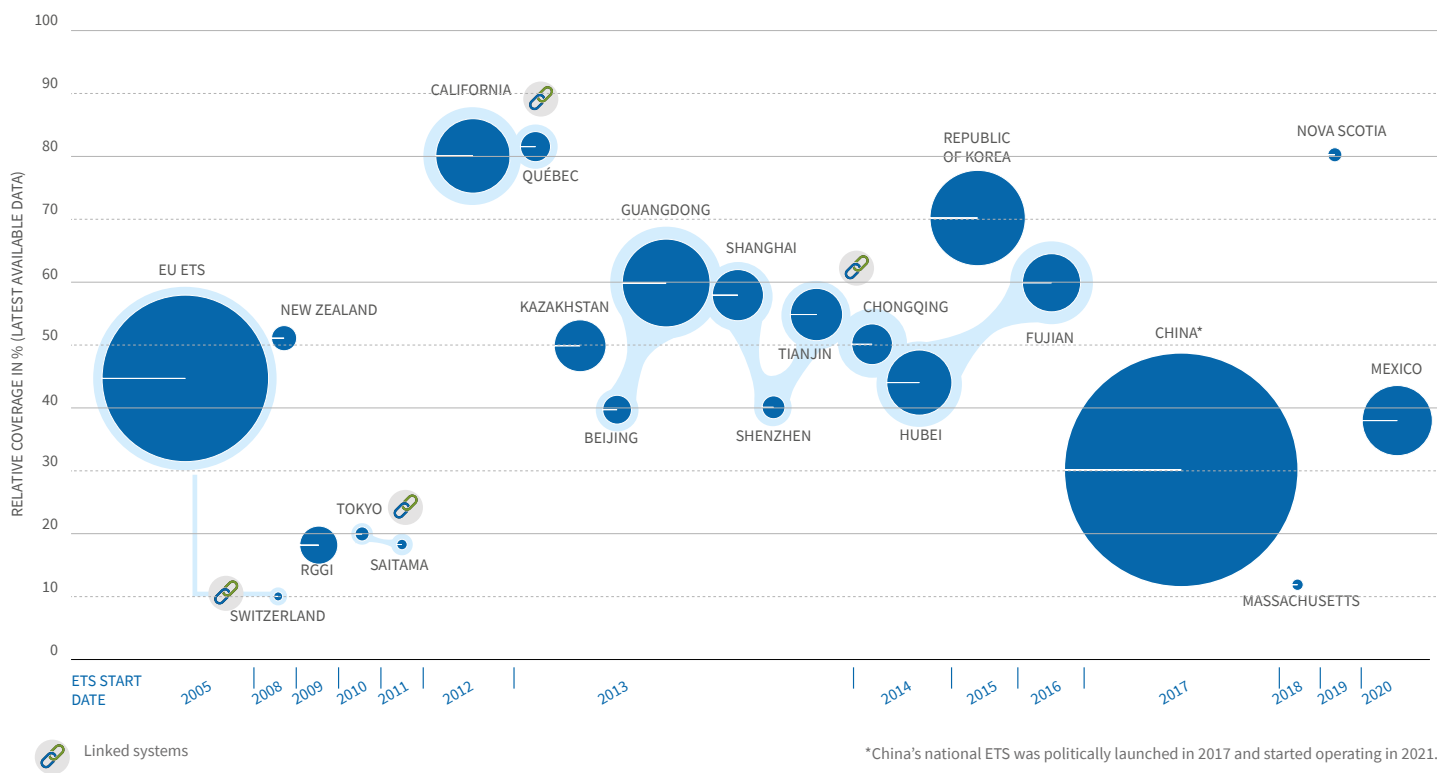
Existing systems are maturing and linking

The first generation of pioneer ETSs have been improved and refined based upon earlier lessons learned. The European Emissions Trading system has undergone a major reform over the past few years, including the introduction of a new Market Stability Reserve (MSR) and a more steeply declining emissions cap. The goal of the new reserve is to address the allowance surplus resulting from the downturn of emissions during the financial crisis in 2008 and to better protect the system against major shocks. Northeastern and Mid-Atlantic States participating in the Regional Greenhouse Gas Initiative (RGGI) succeeded with several review processes, and have agreed on ambitious downward adjustments of their emission cap. In the Southern Hemisphere, New Zealand introduced new measures to its ETS in 2018 as part of the second review of its system.

From 2020, it will start with selling emissions allowances through auctioning schemes, with a view to ensuring overall price stability in the system.

Another trend in maturing ETS is linking, whereby two or more jurisdictions connect their carbon markets, allowing permits to be bought and sold across systems. In 2014, California and Québec successfully linked their systems. In 2015, transport fuels were included in the joint system and their carbon market doubled in volume; it now covers almost 80% of their total emissions. Furthermore, Tokyo, which established the world's first city-level ETS, connected their system with the ETS of the province of Saitama. Finally, the EU and Switzerland linked their systems in 2020.

THE SIZE OF THE BUBBLES GIVES A ROUGH ESTIMATE OF THE SIZE OF THE SYSTEM BASED ON THE AMOUNT OF EMISSIONS COVERED. THE BUBBLE IS CENTERED AT THE PROPORTION OF THE JURISDICTION'S EMISSIONS THAT ARE REGULATED.



New systems are emerging

Meanwhile, Asia has recently become a hotspot for the development of new ETS. In 2015, the Republic of Korea became the second country after Kazakhstan to launch a national ETS in Asia. The Korean system is now the second largest in the world after the EU-ETS. At the same time, China is using its experience from the seven pilot ETSs to prepare for its national carbon market. When fully operational, China will be home to the world's largest ETS.

Elsewhere, in the United States, interest in emissions trading has continued on state level, with New Jersey, Virginia and potentially other states set to join the RGGI market and others, like Oregon, considering their own systems. In Canada, Nova Scotia launched its ETS in January 2019 after final cap-and-trade program regulation was passed in 2018.

ABOUT THE INTERNATIONAL CARBON ACTION PARTNERSHIP: ICAP is an international forum for national and subnational governments focusing on best practices in emissions trading. Its work centers on three main pillars: technical dialog, knowledge sharing and capacity building. For more information see the [ICAP website](#) and its [ETS map](#) and [Allowance Price Explorer](#) or follow us on [Twitter @ICAPSecretariat](#).