



Carbon Pricing - Global context

The South Africa Business and Carbon Pricing Dialogue

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Presentation Overview

Carbon Pricing: Accelerating momentum

Who is leading the agenda?

What is needed to scale up ambition?

Carbon Pricing Leadership Coalition

Context: the Paris Agreement

“Unlike treaties of the past, the Paris agreement needs to speak as loudly of economic transformation as it does of pollution or carbon emissions targets.”

Jim Yong Kim, World Bank Group President

Legally Binding Text

Binding language that should reinforce collective ambition and provide a clear pathway to zero net emissions before 2100.

Intended Nationally Determined Contributions

Individual country contributions (INDCs) with policy packages that comprehensively address how to use all available fiscal and macroeconomic policy levers to get prices right, increase efficiency, incentivize de-carbonization, and address resilience.

Finance Package

A financial package that recognizes that public development funds and climate finance should be used to catalyze innovative financing for adaptation and mitigation.

Working Coalitions

Working coalitions of private enterprises, countries, cities and civil society organizations moving forward where their interests are aligned.

Leaders call for action on carbon pricing

**CLIMATE
SUMMIT 2014**
CATALYZING ACTION

Let's partner on
climate action.
Now.

WORLD
ECONOMIC
FORUM



September 2014: at UN Climate Summit, **+1000** companies & investors and **74** national governments signed a statement calling for a price on carbon

December 2014: Convened by the World Economic Forum, the Climate Leadership Group - a coalition of **43 CEOs** - calls for pricing carbon

June 2015: Letter from the CEOs of six of the world's largest oil and gas companies to the UNFCCC and COP President, calling for governments to price carbon

September 2015: Joint declaration by **major US banks** on climate change states that policy frameworks must recognize the cost of carbon

October 2015: Letter calling for carbon markets in the Paris Agreement from 20 progressive business groups

October 2015: The World Bank Group/IMF/OECD launch a Carbon Pricing Panel consisting of heads of state and government and supported by CEOs



“

Our companies are already taking a number of actions to help limit emissions ... For us to do more, we need governments across the world to provide us with clear, stable, long-term, ambitious policy frameworks. We believe that a **price on carbon** should be a key element of these frameworks. ”

Open Letter to UN and Governments from 6 oil and gas companies

In support of prosperity and growth: Financial sector statement on climate change

Scientific research finds that an increasing concentration of greenhouse gases in our atmosphere is threatening the prosperity and growth of the world's institutions, working with clients to help them understand the business opportunity to build a sustainable future and the ability to help manage risk.

Our institutions are committing to climate solutions. These actions include global climate challenges. Expanding clear, stable and long-term policies to further scale investments.

We call for leadership and cooperation, commitments leading to a strong framework that recognize the costs of climate change. These actions include investment, drive innovation in low carbon technologies, an estimated \$90 billion infrastructure and energy. The right incremental public and private capital is sustainable and resilient.

While we may compete in the market, the importance of policies to address the needs of our clients and customers, we will create the vision necessary for generations to come.

Bank of America
JPMorgan Chase **Morgan**

Industrial Goods

Companies accelerate use of carbon pricing

Plata Clark in London

September 20, 2015 9:47 pm



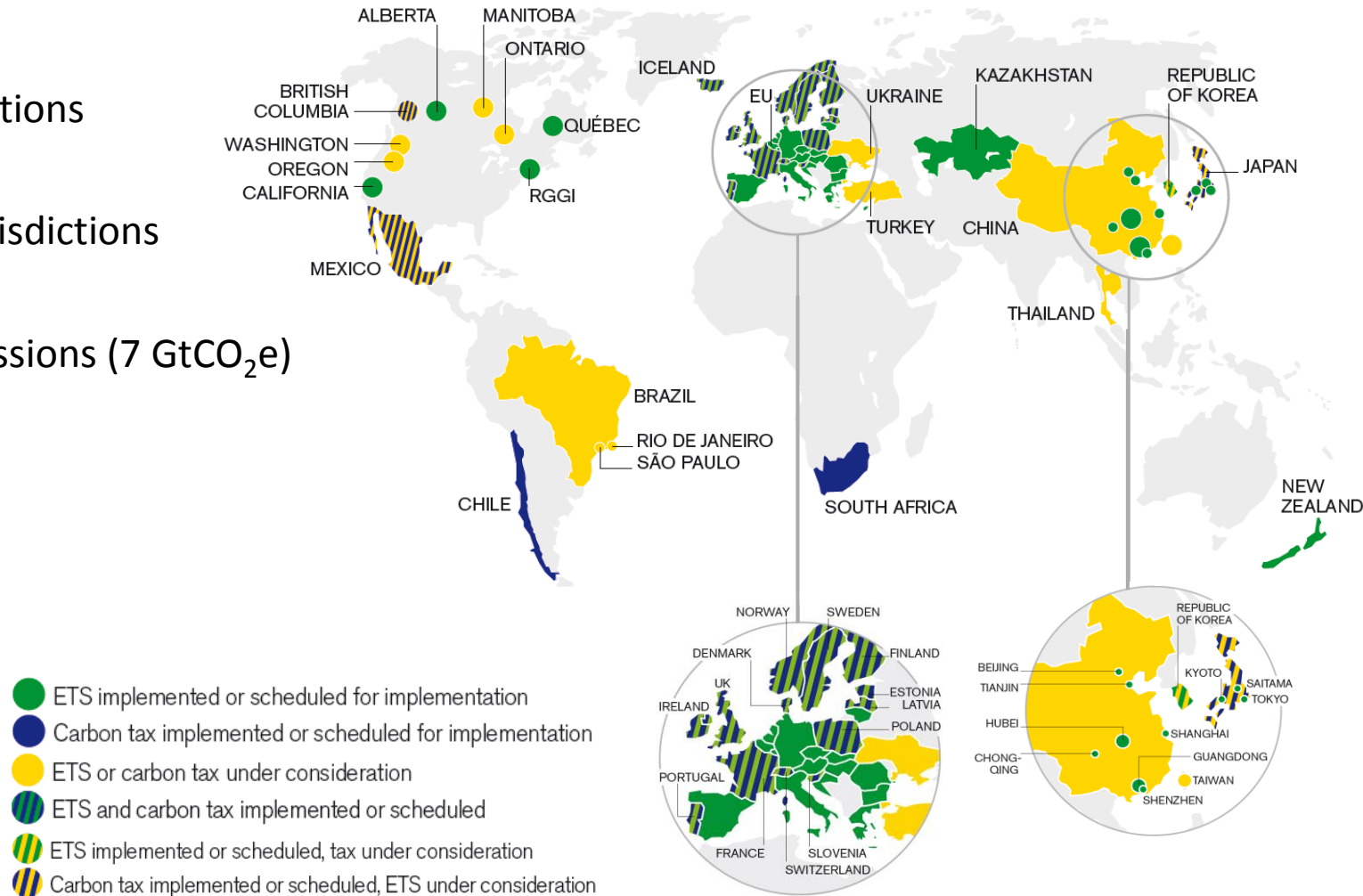
The number of companies putting a price on their carbon pollution has risen sharply in the past 12 months as governments prepare to agree on tougher action to combat climate change this year.

Expansion of jurisdictions putting a price on carbon

39 national jurisdictions

23 sub-national jurisdictions

12% of global emissions (7 GtCO₂e)



The annual value of instruments implemented is just under

US\$ 50 billion

Prices used vary from

US\$ 1-130/tCO₂e

Key developments (2014-15):

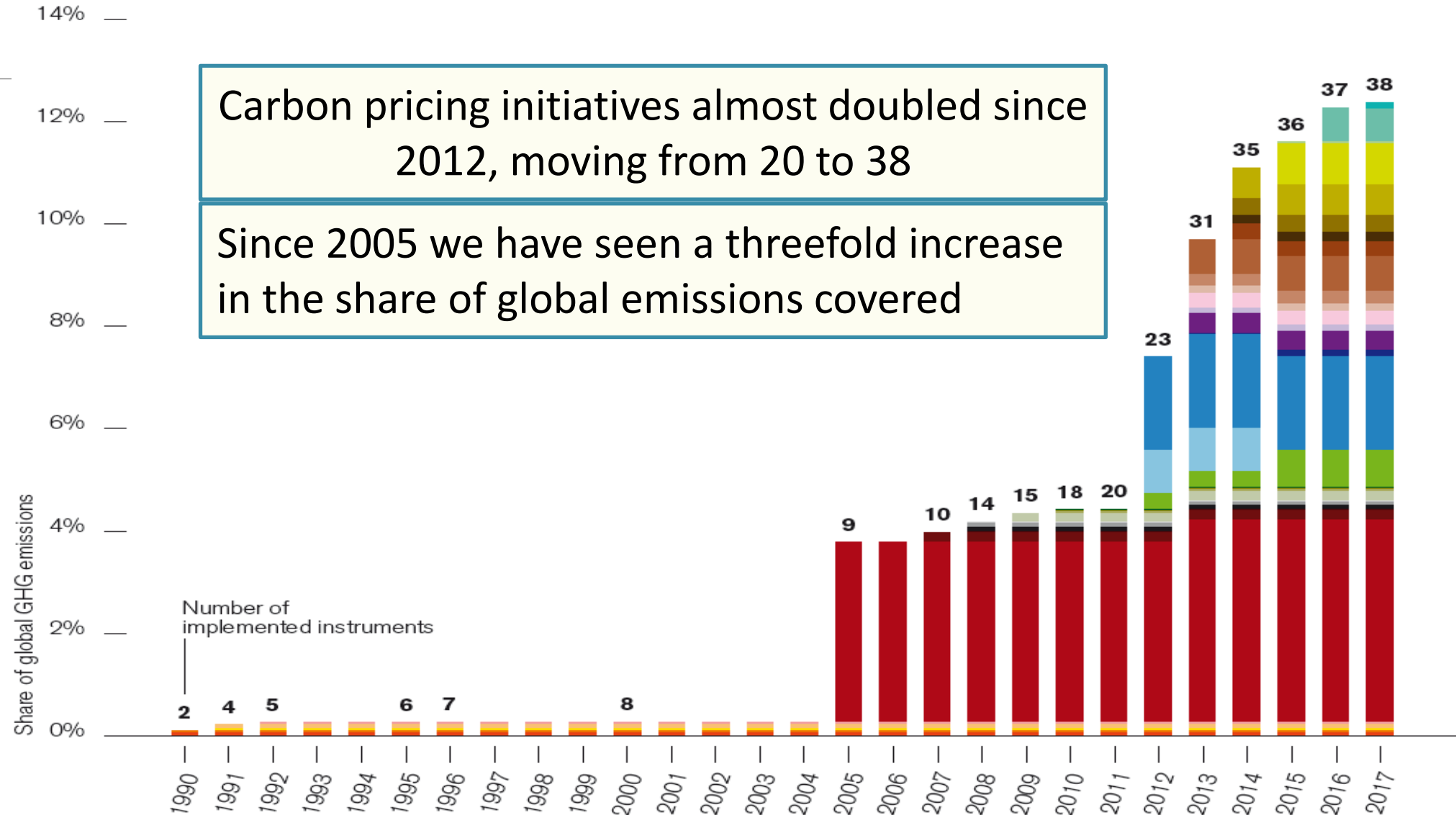
Portugal and Mexico have implemented new carbon taxes

South Korea started one of the world's largest emissions trading systems

California and Quebec linked their cap-and-trade systems, which **Ontario** will join

China announces a national ETS

A growing % of GHG emissions have a price

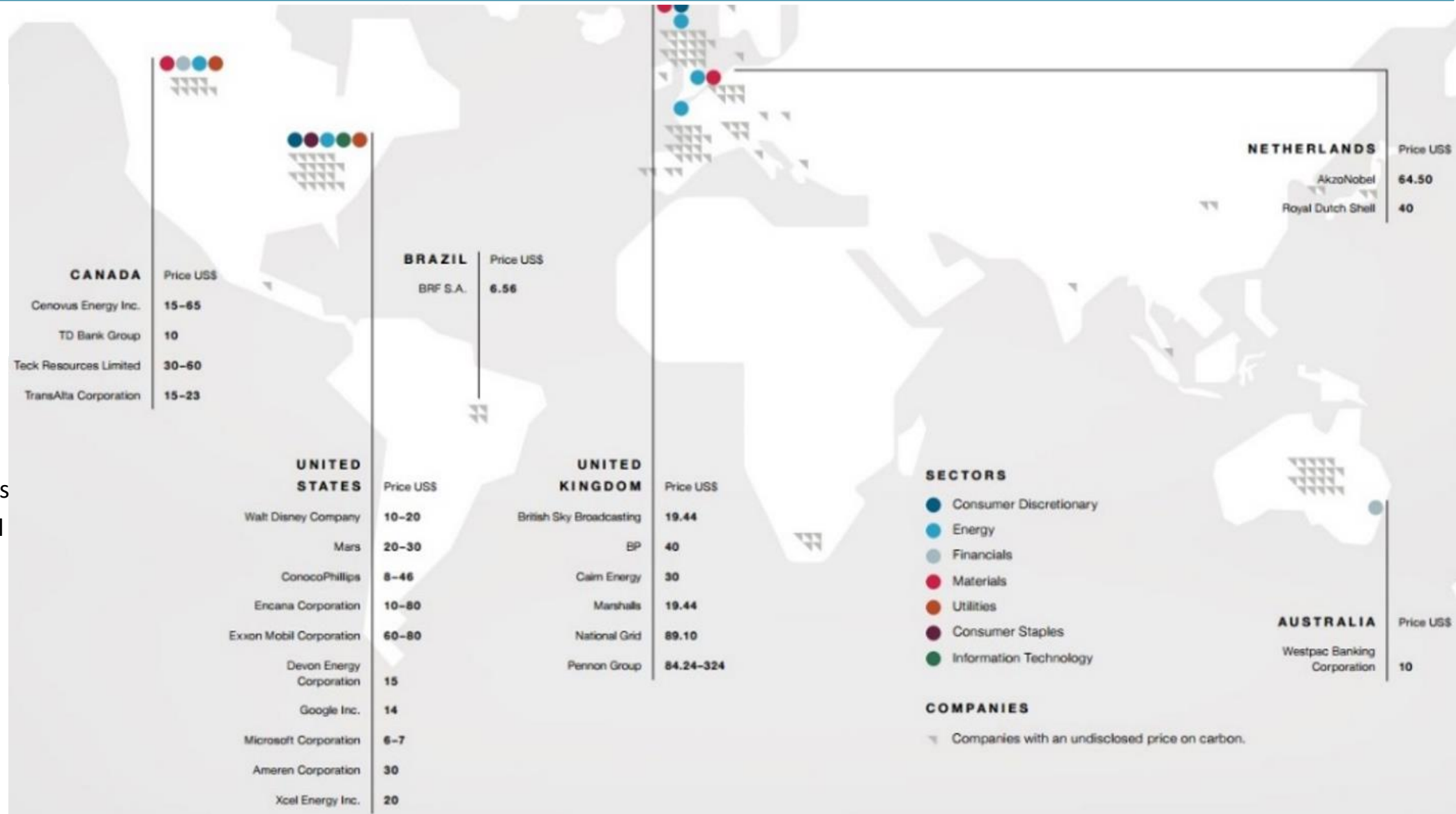


More companies are using internal carbon pricing

1000+ companies

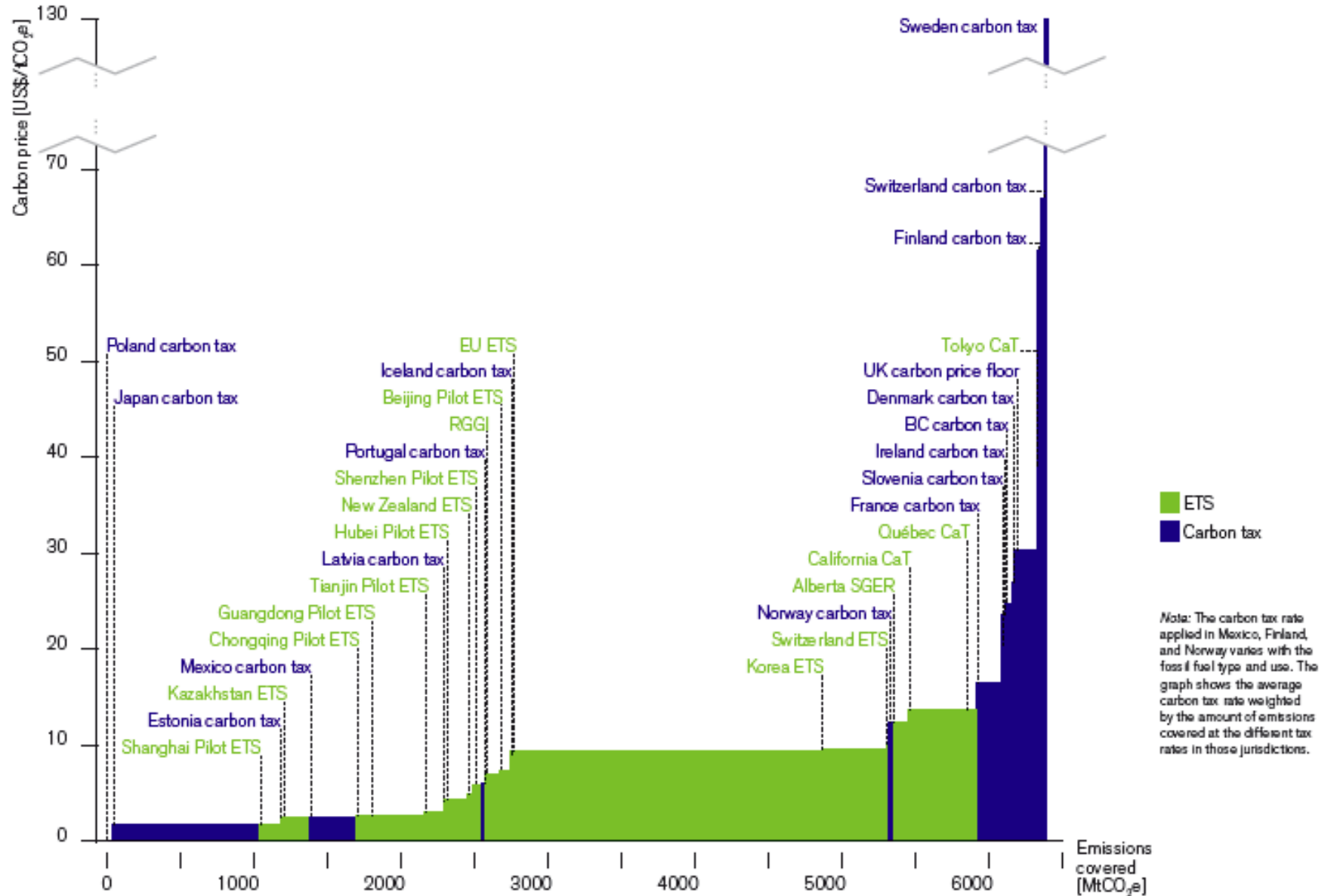
disclose the use of an internal carbon price – or intend to do so in the next 2 years

435 global companies currently use an internal carbon price, up from 150 in 2014



Source: CDP, Global corporate use of carbon pricing, September 2014

Prices and coverage of existing carbon pricing systems are insufficient to put us on a 2-degree path



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Carbon Pricing in Action – Chile's carbon tax

Chile



- Chile's Intended Nationally Determined Contribution (INDC) has a target of cutting GHG emissions to 30% below 2007 levels by 2020
- To help achieve Chile's climate goals, in 2014, Chile enacted a carbon tax of US\$ 5/tonne CO₂ produced by power plants with a capacity of 50 megawatts or greater
 - *"Introduction of the tax, even at a low initial rate, can already display behavioral changes towards a more sustainable energy generation."*
- Chile is also conducting policy analysis to understand the interaction (and impacts) of the carbon tax on existing policies to ensure alignment with economic growth, climate and development goals:
 - How the tax induces technological changes in the energy sector
 - Interaction of carbon tax with existing policies and regulations (i.e., thermoelectric power plant emission norms)
 - Impacts on competitiveness and on end users, and impacts of higher tax levels
 - Complementary/facilitative measures (especially looking at cap & trade and offsets)

Carbon Pricing in Action – Canada

British Columbia: Phased Tax Approach



- Carbon tax launched in 2008 at CAN\$10 per ton of CO_{2e}
- Applies to all fossil fuels purchased or used in province, in addition to methane and NO₂
- Scheduled increases to reach current **\$30/tonne level**
- Includes tax credit for low-income households

Results

- Carbon tax revenue rose from CAN\$306 million to **\$1,120 million** in 2012
- Modest gasoline price impact of 2 cents/liter on introduction
- BC now home to **growing clean technology sector**, with more than 150 firms in operation in 2012—accounting for 22% of Canada's clean technology
- Low-income households better off after 2010 because Low Income Climate Action tax credit compensated for the carbon tax

Quebec: Linked ETS Scheme



- Quebec's and California's Cap-and-Trade programs linked up as of January 2014 and held first shared auction in November 2014
- Scope of both programs enlarged in 2015 to include transport fuels, extending the coverage to **85%** of California and Quebec's total GHG emissions
- Clearing price at latest auction in March 2015 reached **\$6 per ton of CO₂**.
- In April 2015, the Canadian province of **Ontario** announced its intention to implement an ETS linked to California and Quebec's Cap-and-Trade

Alberta's Climate Change and Emissions Management Act

- Since 2007, the Specified Gas Emitters Regulation (SGER) has created an intensity-based limit on industrial GHG emissions by requiring certain industrial emitters to reduce their emissions intensity.
- It seeks to reduce GHG emissions relative to the province's GDP **to 50%, or less** than the province's 1990 emissions levels



Carbon Pricing in Action – China ETS

Since 2011, China has been experimenting with **7 regional carbon market pilots**

7 schemes cover **18%** of China's population and **28%** of its national GDP (Guangdong 3rd largest ETS in the world)

At present, prices range from **\$3.34 to \$8.43**

National ETS to be launched in 2017



Counted together, Chinese ETS pilots represent the **largest national carbon pricing** initiative in the world in terms of volume, putting a cap on **1.3 GtCO₂e**

For the compliance year 2014, **24.7 million allowances** were traded in all systems combined

China commits to **reducing its carbon dioxide emissions per unit of GDP by 40-45 % by 2020**, compared with 2005 levels, and **increase non-fossil-based primary energy consumption to 15 % by 2020**.

Carbon Pricing in Action – Microsoft



In July 2012, Microsoft adopted **a carbon neutral strategy** for its global data centers, offices, software development lab and company air travel.

Microsoft uses an internal carbon pricing program and an **investment fund** to help cover costs. Microsoft buys **certified renewable energy certificates** and direct carbon offsets.

Microsoft departments added **a budget line item reflecting the financial value of emissions**, which translated to new capital for sustainability initiatives. Microsoft makes energy efficiency grants to internal business lines.

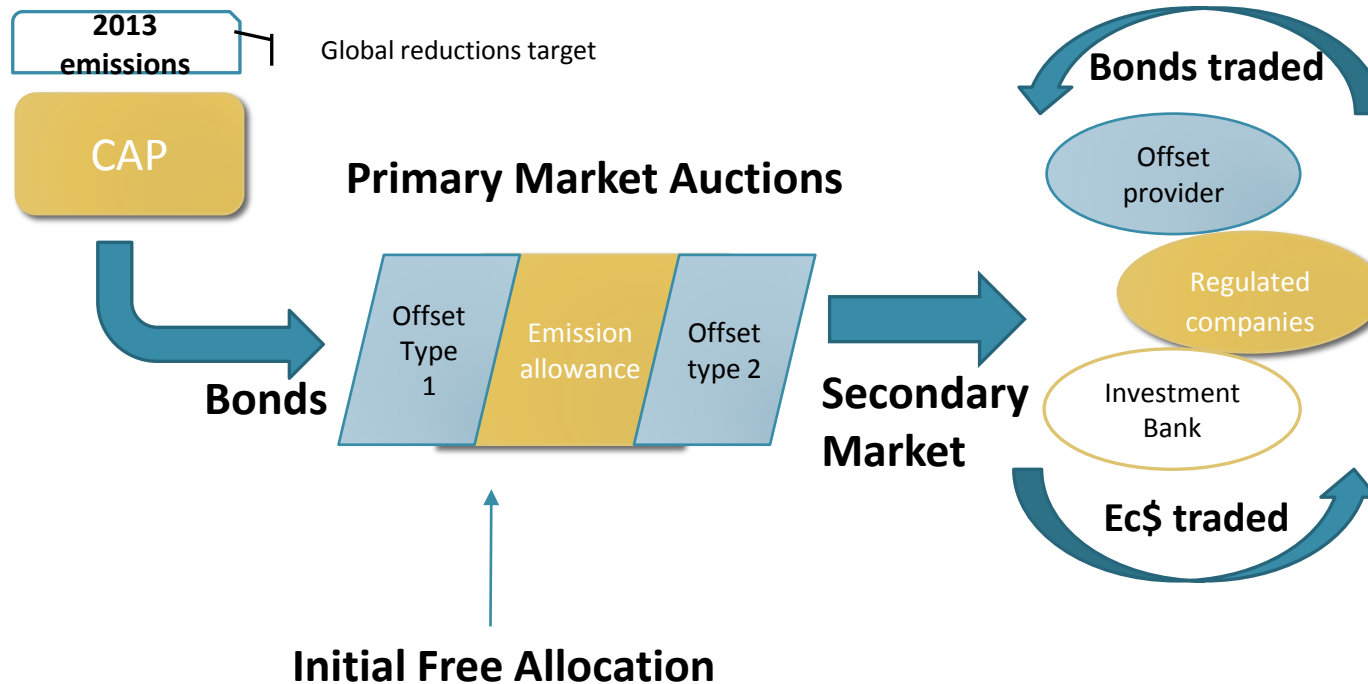
- **\$5/ton** carbon price; expected to rise
- **\$10 million** in annual energy savings
- **7.5 million metric tons** of CO₂e emissions reductions
- **10.2 billion** kilowatt-hours worth of new renewable energy investments

Carbon Pricing in Action – EPC EMISSIONS TRADING SYSTEM SIMULATION



An initiative aimed to offer the **Brazilian business sector** the opportunity to test a market instrument for carbon pricing and to enable it to contribute support for carbon pricing in Brazil and internationally.

Number of participants : 20 companies
Represented Sectors : Energy, mining, financial, manufacturing, logistics, services, communication, agroforestry, construction, and waste management
Cap : 23.5 MtCO₂e
Volume of bonds traded : 12.4 MtCO₂e
Maximum and average price of emission permit : Ec\$ 35,00; Ec\$ 27,38 (simulation currency)



Companies operate on the trading platform with the aim of **attaining the best possible combination of financial and operational results.**

Their objective was to facilitate **the reduction of greenhouse gas emissions via the acquisition of emission allowance bonds and offsets (carbon credits).**

Carbon Pricing: Accelerating momentum

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Carbon Pricing Leadership Coalition

A common set of key issues

- **Competitiveness** and concerns about carbon leakage
- **Distributional impacts** – e.g., higher energy prices for low-income households
- **Alignment** of carbon pricing with other policies
- **Productive use of revenues** – to ease the transition, accelerate technology innovation
- **Linking and networking** different carbon pricing systems

Principles for Successful Carbon Pricing

Fairness

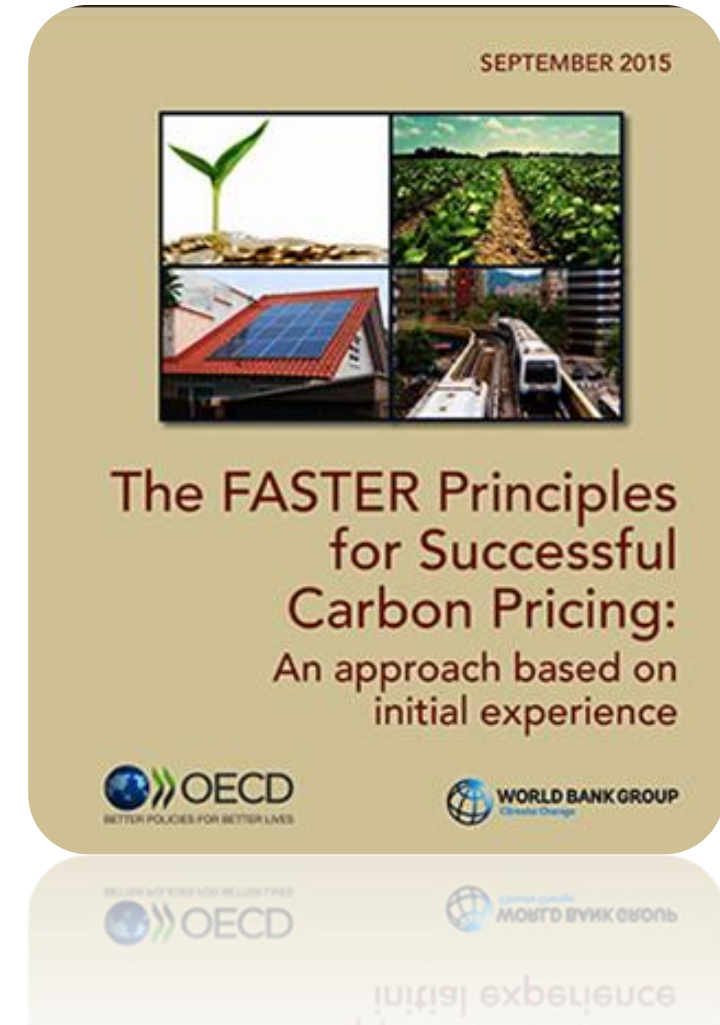
Alignment of policies

Stability and Predictability

Transparency

Efficiency and Cost-effectiveness

Reliability and Environmental Integrity



An emerging set of lessons

Fairness

- Reflect Polluter Pays Principle
- Distribute costs and benefits equitably
- Avoid disproportionate burdens on vulnerable groups

Alignment of Policies

- Coexists with mutually reinforcing complementary policies
- Reforms counter-productive policies
- Facilitates policy coherence

Stability and Predictability

- Predictable policy framework and strong investment signal
- Incorporate flexibility to adjust to unpredictable events

Transparency

- Communicate rationale, objective, shared benefits
- Monitor and verify emissions

Efficiency and Cost-effectiveness

- Reduce emissions at least cost fostering flexibility and innovation
- Enhance efficiency, simplify administration
- Recycle revenues & enhance economic benefits

Reliability and Environmental Integrity

- Ensure measurable reductions in harmful behavior
- Comprehensive coverage

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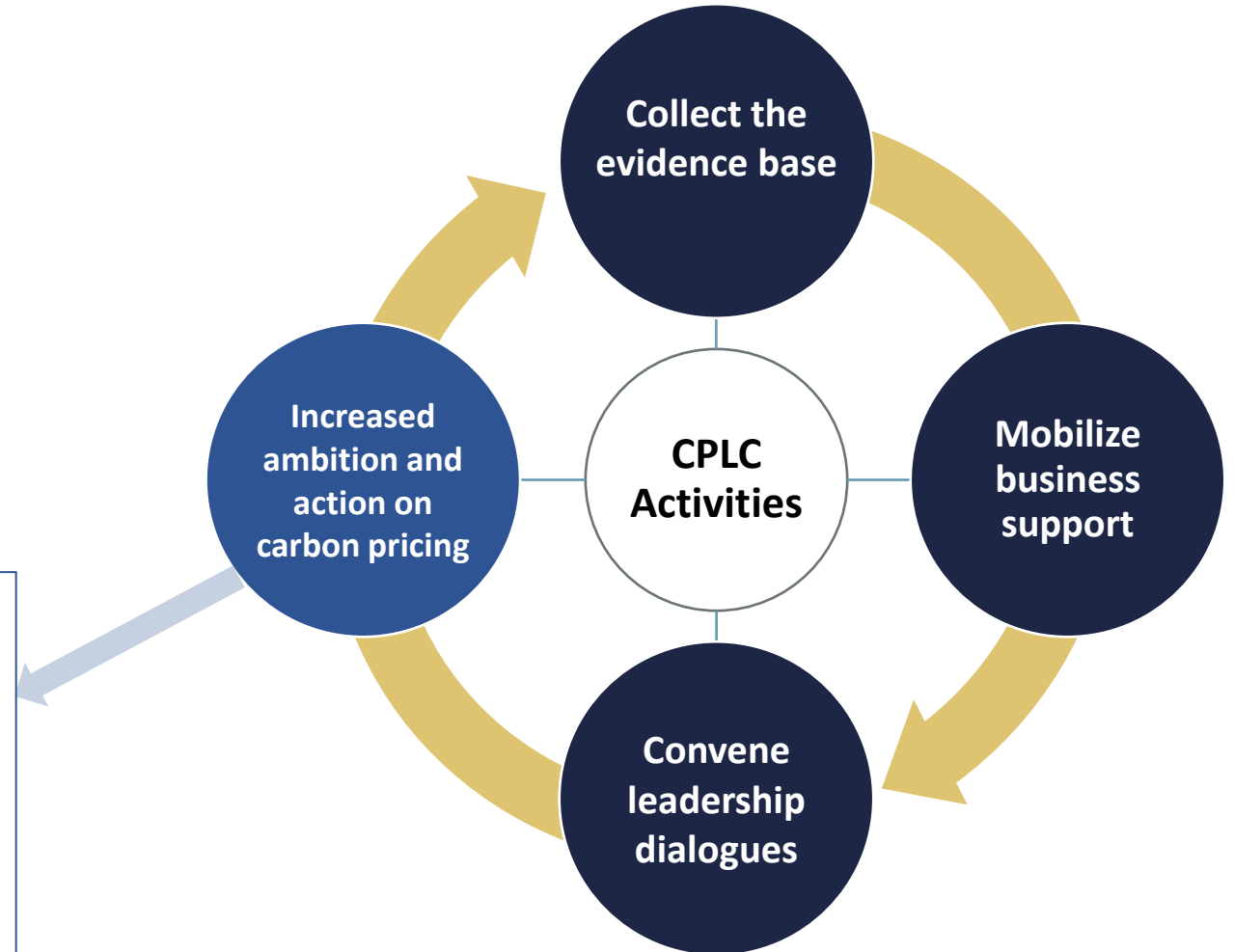
Carbon Pricing Leadership Coalition

Carbon Pricing Leadership Coalition

The Carbon Pricing Leadership Coalition **is translating support into action** by bringing together government, business, and civil society leaders to share experiences with carbon pricing and expand the evidence base for effective carbon pricing systems and policies—leading to successful implementation.

Results indicators

- # of governments putting in place new carbon pricing
- # of governments raising ambition on existing carbon pricing
- # of businesses using internal carbon pricing
- Evaluation of effectiveness in delivering environmental & economic results



CPLC Work Program

Building and sharing the evidence base

Goals

- Create a repository of global experience with policy design and implementation, collecting best practices from around the world
- Synthesize the latest analysis on key issues and share results on emerging solutions

Activities

- ✓ *Principles for Successful Carbon Pricing*
- ✓ Executive briefings that synthesize global knowledge on how to address key issues
- ✓ Methodology to track the effectiveness of carbon pricing systems

Mobilizing business support

Goals

- Collect views on possible paths to support a low-carbon transition and redirect investments
- Advance knowledge of corporate readiness strategies, such as internal carbon pricing
- Brief and engage executives and investors on carbon pricing, potential implications for investors, and business rationale for supporting carbon pricing

Activities

- ✓ The Carbon Pricing Pathways toolkit
- ✓ Knowledge products and tools to facilitate use of internal CP
- ✓ Executive briefing papers

Convening leadership dialogues

Goals

- Provide a platform for government, business and civil society leaders to exchange experience, showcase progress, and catalyze action
- Help governments gain stakeholder support to design and implement successful CP systems, and help businesses learn from one another

Activities

- ✓ Global dialogues to share success stories and inspire greater collective action
- ✓ Regional dialogues to discuss lessons learned and explore networked markets
- ✓ On request, national government/business dialogues of particular issues

Join Our Coalition of the Working



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LEADERSHIP COALITION

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"We face an existential challenge with the changes in our climate.
The time to act is now."

- GOVERNOR JERRY BROWN, STATE OF CALIFORNIA, US

CARBON PRICING LEADERS

A growing number of leaders – national, local and corporate – are speaking out in support of carbon pricing. Listen as they describe their experiences with carbon pricing and the reasons they consider it a powerful and efficient way to reduce emissions.



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