



CARBON PRICING
LEADERSHIP COALITION

2016-2017

CARBON PRICING LEADERSHIP REPORT



FOREWORD

by Jim Yong Kim, World Bank Group President

Climate change has been a growing crisis for decades, and we're running out of time. We need to rethink how to bring the private and public sectors together to move immediately on both mitigation and adaptation. This coordination will allow us to have the largest possible impact now, and stimulate the market to generate more investment in things like sustainable energy in the future.

One effective tool to combat climate change is carbon pricing, which translates carbon pollution into a price that businesses, governments, and consumers can factor into their investment decisions. Carbon pricing provides the most stable and predictable path for transitioning countries' economies toward lower-carbon output.

Global action is encouraging: over 60 governments and more than 1,200 businesses are now pricing carbon emissions. But current price levels and coverage are not nearly enough to keep warming below 2 degrees Celsius worldwide and avoid the most devastating impacts of climate change. We need action now.

The Carbon Pricing Leadership Coalition (CPLC) was launched at COP21 to spearhead ambitious carbon pricing policies. We now have over 200 leading organizations working to expand carbon pricing, with the goal of covering 25 percent of global emissions by 2020 – double the current level – and 50 percent within the next decade.

This report, the first from the CPLC, includes over 60 compelling stories of leadership on carbon pricing, proof that governments, the private sector, and civil society are determined to make good on the promise of the Paris Agreement. With submissions across countries and sectors, the examples here range from governments working to expand, deepen, and link carbon pricing systems; to corporate innovations on internal carbon pricing; to student-led campaigns that raise awareness about the need for action.

We are honored that the World Bank serves as Secretariat for the CPLC. We are fast becoming a one-stop shop to support carbon pricing action – helping build government capacity, link markets, and scale up climate finance. And the International Finance Corporation – the World Bank Group's private sector arm—is helping create a low-carbon future through internal carbon pricing.

The CPLC's strong start could not have been possible without the personal leadership and commitment of our High Level Assembly Co-Chairs: Ségolène Royal, French Minister of Ecology, Sustainable Development and Energy; and Feike Sijbesma, CEO of Royal DSM. We have also had tremendous support from the CPLC Steering Committee and Working Group Co-Chairs.

I hope that by sharing these success stories, we can inspire others to discover their own solutions and move with the speed and scale we need to finally address climate change.



Jim Yong Kim

President, World Bank Group

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GOING FORWARD



MAHINDRA GROUP WMB THE NETHERLANDS UNILEVER IMF WORLD BANK GROUP FRANCE ROYAL DSM

CALIFORNIA SPAIN

2016-2017 CARBON LEADERSHIP COALITION LEADERSHIP REPORT

The challenge of climate change is more urgent than ever - and ratification of the Paris Climate Agreement, reached at the United Nations Framework Convention on Climate Change 21st Conference of the Parties (COP21) in 2015, signals that the world is ready to take action. However, powerful tools are required to achieve the large-scale emission reductions needed to deliver on the Paris Agreement. Putting a price on carbon pollution is one of the most potent and efficient strategies being used by governments and businesses alike to reduce carbon emissions and combat climate change.

The use of carbon pricing as a strategy to reduce emissions has accelerated significantly over the past several years. Right now, forty national jurisdictions and more than twenty cities, states and regions are putting a price on their carbon emissions, including seven of the world's ten largest economies. Carbon pricing initiatives, including a range of cap-and-trade systems and carbon taxes, have increased threefold over the past decade to now cover almost thirteen percent of global greenhouse gas emissions. In 2015 alone, over US\$26 billion in revenues were raised from carbon pricing initiatives – a sixty percent increase over the year before.¹

Moving forward, the Paris Climate Agreement sets up a framework for global cooperation through carbon markets. Notably, more than 100 countries consider use of carbon pricing initiatives as part of their Nationally Determined Contributions (NDCs), through emissions trading within or across borders, international crediting, carbon taxation and other measures.² Major economies are also taking steps to advance their domestic carbon pricing policies. For example, the European Union has created a market stability reserve that will provide greater price stability and predictability in the EU Emissions

Trading System (ETS). And in a major step forward for carbon pricing, China announced that it will launch a national ETS in 2017 covering power generation and several key industrial sectors, making it the largest carbon pricing initiative in the world.³

The private sector is also leading the way on carbon pricing, with more than 1,200 companies reporting that they currently use an internal price on carbon emissions, or will within the next two years.⁴ Business leaders are increasingly speaking out, with CEOs from almost eighty leading companies across twenty sectors coming together to call for bold action on climate, and highlighting carbon pricing as one of the most effective strategies to reduce emissions.⁵

This is encouraging progress. But more action is needed to put the world on the path to meeting a 2°C or below climate change target. To harness the full potential of carbon pricing to reduce global emissions, governments, business and civil society need to work together to address the key challenges hampering greater use of carbon pricing and accelerate carbon pricing initiatives across the globe. **This work requires bold leadership on many levels – by governments, by companies, and by the academic and NGO communities. Personal and organizational leadership across these sectors is essential to drive action and collaboration to implement effective carbon pricing policies. The Carbon Pricing Leadership Coalition (CPLC) was established to provide a forum for collaborative leadership on carbon pricing. This report highlights the action that CPLC Partners have taken to drive carbon pricing, and outlines the many ways that Coalition Partners can, and will, continue to lead in the fight against climate change.**

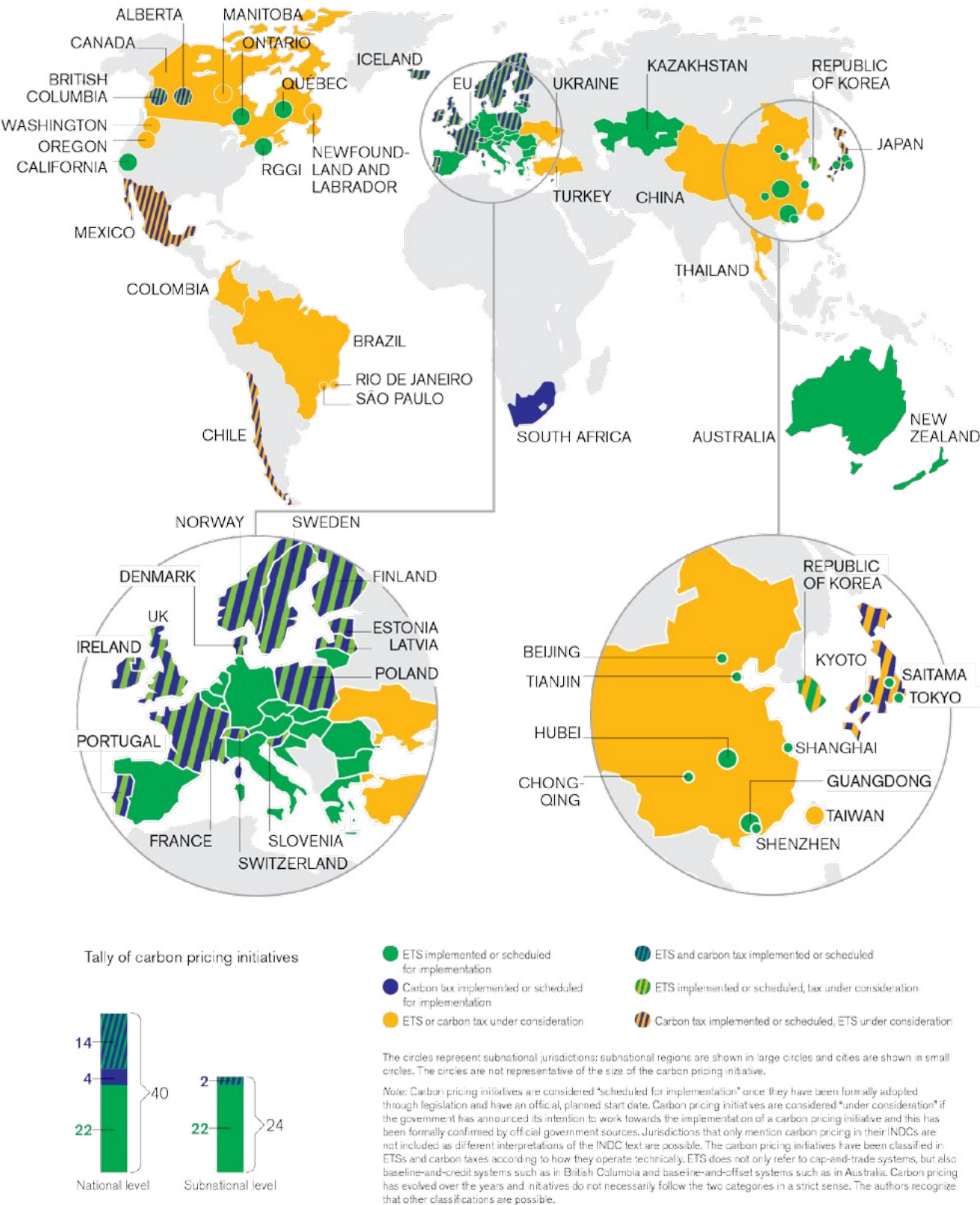
1. State and Trends of Carbon Pricing 2016, World Bank; Ecofys; Vivid Economics (2016) Washington, DC: World Bank. Available at: <https://openknowledge.worldbank.org/handle/10986/25160>

2. Ibid p.45-47

3. Embedding a Carbon Pricing into Business Strategy. CDP (2016).

4. "Open letter from CEOs to world leaders urging climate action," World Economic Forum (2015). Available at: <https://www.weforum.org/agenda/2015/11/open-letter-from-ceos-to-world-leaders-urging-climate-action/>

Figure 1 Summary map of existing, emerging and potential regional, national and subnational carbon pricing initiatives (ETS and tax)



World Bank, Ecofys and Vivid Economics, 2016. State and Trends of Carbon Pricing 2016 (October), by World Bank, Washington, DC.

I. CPLC IN ACTION

Since its launch, CPLC Partners have engaged in dialogues spanning the globe, led on public policy and corporate action, and taken steps to strengthen and expand carbon pricing policies globally.

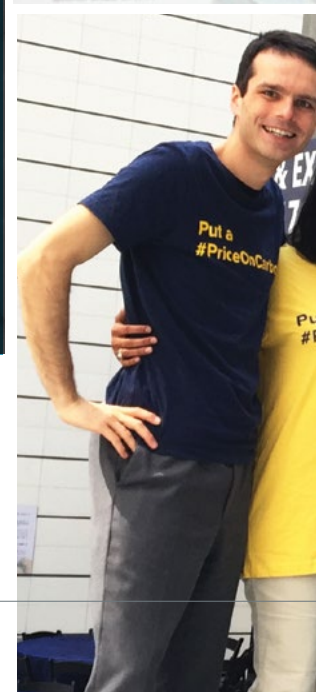
Leading International Discussions

8

The Carbon Pricing Leadership Coalition (CPLC) was officially launched on the opening day of COP21 in Paris, at an event attended by government ministers, CEOs, civil society and international organizations. The CPLC launch was followed just hours later by the appearance of the heads of state and governments of France, Germany, Mexico, Chile, Ethiopia and Canada, who joined World Bank Group President Jim Yong Kim and Secretary General of the OECD Angel Gurría in calling for carbon pricing as a means of driving investment for a cleaner future. The Coalition also participated in events at COP22 in Morocco, hosting a high-level event on carbon pricing to share success stories of climate leadership and keep the discussion moving forward.



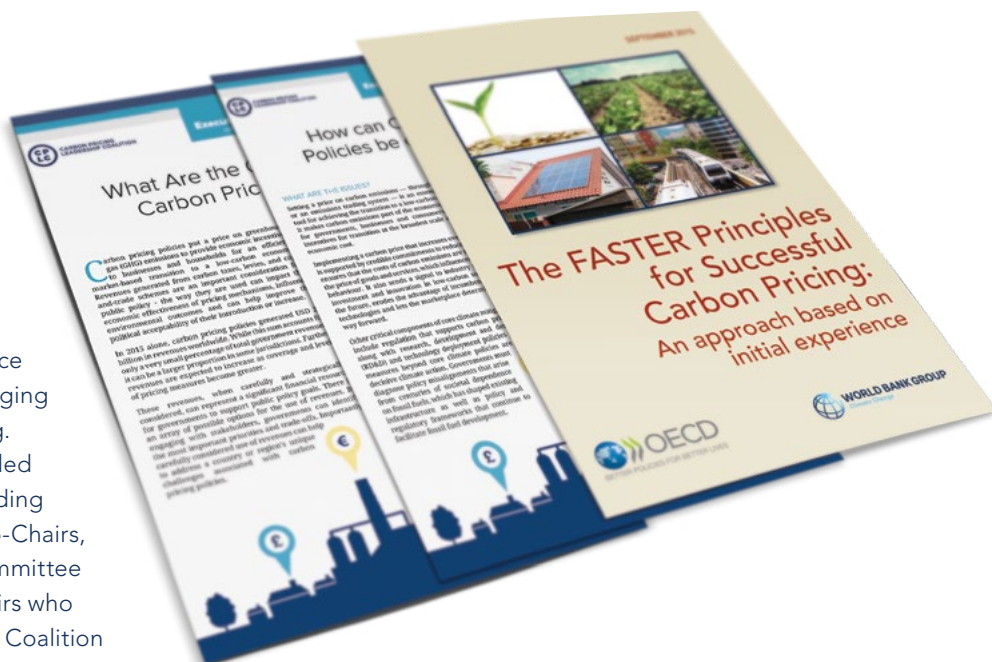
All photos © 2017 World Bank Group





Putting the CPLC Work Plan into Action

CPLC partners drive the Coalition's work plan, which aims to share experiences with carbon pricing design and implementation at the global, regional and national levels; support peer-to-peer learning and outreach efforts; and, advance solutions to existing or emerging issues around carbon pricing. The work of the CPLC is guided by a governance team, including two High Level Assembly Co-Chairs, a nine member Steering Committee and Working Group Co-Chairs who all help steer the work of the Coalition and support its efforts. To achieve the Coalition's goals, CPLC activities were organized around three working groups – each of which was spearheaded by Partner efforts.



- Building and Sharing the Evidence Base:** Collects and facilitates access to up-to-date information tailored for policymakers, business leaders and practitioners on current and emerging practice in pricing carbon design and implementation, market trends, opportunities and trade-offs. During the past year, the Working Group:
 - Published multiple briefs for policymakers on key issues, including: What is the Impact of Carbon Pricing on Competitiveness?; What are the Option for Using Carbon Pricing Revenues? : and, How Can Carbon Prices and Policies be Effectively Aligned?
 - Provided important perspective to enhance the World Bank's 2016 and 2017 State and Trends of Carbon Pricing reports which provided global overviews of carbon pricing trends
- Mobilizing Business Support:** Works to mobilize private sector support around action on pricing carbon, drawing on best practices from the business community. The group works to brief and engage executives and investors on carbon pricing, advance knowledge and up-take of internal carbon prices, and consolidate views on carbon price levels needed to support a low carbon transition. During the past year, the Working Group:
 - Created an [Internal Carbon Pricing Webinar Series](#) to share companies' experiences with internal carbon pricing and deepen understanding of the mechanics of internal pricing policies, led by Yale University and the World Economic Forum and featuring executives from Royal DSM, Yale, Mahindra and other partners.
 - Shared experience with carbon pricing in case studies compiled by CDP, such as [Embedding a Carbon Price Into Business Strategy](#) (CDP, 2016)
 - Engaged with the financial community through an investors task force to discuss carbon pricing in a broader financial context.
 - Took action to assess internal practices and adopt internal pricing policies.

- **Convening Leadership Dialogues:** Provides platforms for government, business and civil society leaders to exchange experience, showcase progress, and catalyze action on carbon pricing. This includes hosting global and regional leadership dialogues, organizing national government/business dialogues with tailored analysis on request, and creating a platform with partners for north-south and south-south collaboration among businesses and governments to foster collaboration on carbon pricing and support ongoing efforts or the realization of carbon pricing plans. During the past year, the Working Group:
 - Engaged in more than a dozen global and regional dialogue events around the world that provided governments, companies, and civil society with opportunities to discuss the road ahead on carbon pricing, thus contributing to their efforts to price carbon within their jurisdiction or operations. This includes events in **Brazil, Canada, Chile, Colombia, France, India, Mexico, Russia, Switzerland, and South Africa.**
 - Facilitated dialogues at regional level between countries seeking to collaborate on linking of carbon markets
 - Facilitated national dialogues to consider the role and potential of carbon pricing in their economies.
 - Initiated discussions at a sector level on pricing carbon involving public and private sector stakeholders

Engaging Youth in the Conversation

The CPLC has also been engaging with youth around the world to bring new voices to the call for carbon pricing as an instrument that can contribute to achieving a low carbon future across the world. In 2016, the CPLC partnered with Connect4Climate to help give young people a global platform to share inspiring climate change solutions through the Film4Climate Global Video Competition. In partnership with the CPLC, the Connect4Climate competition featured a Put-a-Price-on-Carbon-Pollution Award, a special award for video productions that put a focus on carbon pricing and the reasons why global leaders should support the growing momentum for countries to voluntarily put a price on carbon pollution. The two teams of winners of the special award, four young filmmakers from the United States, Spain and the United Kingdom, attended the award ceremony at the United Nations Climate Conference (COP22) during a day celebrating the power of youth, cinema and the creative industries to generate climate action and tackle climate change.

The CPLC also joined with the #PutAPriceOnIt campaign. Together, #PutAPriceOnIt and CPLC are collaborating to grow the carbon pricing movement by educating the public about the efficacy of the policy, recruiting youth and student leaders, and building a strong and diverse base of support.



2016-2017 CARBON PRICING LEADERSHIP COALITION GOVERNANCE TEAM

CPLC High Level Assembly Co-Chairs



SÉGOLÈNE ROYAL, MINISTER OF THE ENVIRONMENT, ENERGY AND MARINE AFFAIRS AND COP21 PRESIDENT, FRANCE

MINISTER ROYAL provided key government leadership and set an ambitious agenda for carbon pricing action while serving as an inaugural Co-Chair of the CPLC High Level Assembly. Under the auspices of Minister Royal, more than 200 government, business and civil society leaders gathered in Paris in June 2016 for a High Level Forum on Carbon Pricing hosted by the French government. This action-forcing event examined practical next steps to translate the concept of carbon pricing into concrete action on the ground, and once introduced, how best to recycle carbon pricing revenues.

FEIKE SIJBESMA, CHIEF EXECUTIVE OFFICER, ROYAL DSM

MR. SIJBESMA led significant engagement with the private sector and served as a vocal advocate for carbon pricing in the corporate world while serving as an inaugural Co-Chair of the CPLC High Level Assembly. Mr. Sijbesma led outreach to bring companies into the CPLC, keynoted multiple international dialogues, and participated in webinars to share Royal DSM's trailblazing efforts on internal carbon pricing with peers in the industry.



Steering Committee

The Steering Committee helps ensure the CPLC's activities are working to achieve the vision and strategic direction laid out by the High Level Assembly. Through monthly virtual meetings, the nine member Steering Committee reviews progress on the CPLC work plan, recommends new CPLC activities, working groups or other necessary actions, and helps support CPLC activities among other responsibilities.

2016-2017 Steering Committee Members:

JORGE SOTO

Director for Sustainable Development – Braskem

SONIA MEDINA

Executive Director, Climate Change- The Children's Investment Fund Foundation (CIFF)

CHRISTINE FAURE-FEDIGAN

Head of Corporate Climate Strategy - ENGIE

NATHANIEL KEOHANE

Vice President, Global Climate - EDF

MARCELO MENA CARRASCO

Minister of Environment - Chile

JEAN-YVES BENOIT

Director, Carbon Market Division, Ministry of Environment - Québec

ULRIKA RAAB

Senior Advisor - Sweden

ANIRBAN GHOSH

Chief Sustainability Officer - Mahindra Group

NIGEL TOPPING

Chief Executive Officer – We Mean Business Coalition

Working Group Co-Chairs

Building and Sharing the Evidence Base

ANTHONY COX

Head of Climate, Biodiversity and Water Division – Organization for Economic Cooperation and Development (OECD)

ANNE BOLLE

Head of Climate Policies – Statkraft

ANDREI MARCU

Senior Fellow – International Center for Trade and Sustainable Development (ICTSD)

Mobilizing Business Support

ALEXANDER ROEDER

Corporate Manager Sustainability - CEMEX

LANCE PIERCE

President, CDP North America – CDP

Convening Leadership Dialogues

HERMAN SIPS

Senior Policy Coordinator Climate Change - Netherlands

DAVID HONE

Chief Climate Change Adviser - Shell
Representing the *Paying for Carbon Coalition*

VALÉRIE QUINIOU

Vice-President for Climate & Energy - Total

DIRK FORRISTER

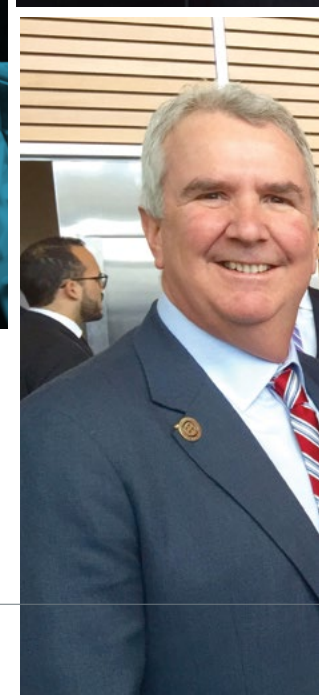
CEO and President – International Emissions Trading Association (IETA)

II. LEADERSHIP IN ACTION

The CPLC is more than 200 partners strong – each working toward the broadening, deepening, and linking of carbon pricing policies around the globe.

Across regions and sectors, and through a range of actions, CPLC partners have shown significant leadership over the past year. The highlighted actions below are a small sample of the ongoing efforts by all CPLC partners

All photos © 2017 World Bank Group





CARBON PRICING LEADERSHIP STORIES

ACCIONA

ACCIONA **has been implementing an internal carbon price since 2008** to direct its investments and foster the implementation of efficiency measures.

Establishing an internal shadow price in 2015 and committing to become carbon neutral as of 2016 led us to the introduction of incremental targets in reducing CO2 equivalent emissions aligned with the Science-Based Targets framework. In addition, ACCIONA's Energy Business division gets all electricity supply from renewable energy sources, and we have made further investments in projects fostering low carbon innovation.

Jose Manuel Entrecanales Domecq, Acciona's CEO is also a high-level panel member of the **Carbon Pricing Corridor** initiative.

"At ACCIONA, we've identified carbon pricing as an outstanding tool to boost decarbonization and support the transition to a zero-carbon economy."

- **JOSE MANUEL ENTRECANALES**
DOMECQ, CEO ACCIONA

Alberta Climate Leadership Plan

A year and a half into implementing its Climate Leadership Plan, the Canadian province of Alberta is making significant inroads to improve the economy and protect the health of Albertans and the environment. **One of the key pillars of the Plan is an economy-wide price on carbon.**

Carbon levy revenue is being reinvested to help diversify Alberta's economy by supporting jobs in new industries like renewable energy and clean tech and helping people and businesses save money. Rebates for lower- and middle-income

Albertans have helped offset the costs of the carbon levy, while the small business tax was cut from 3 percent to 2 percent. The government is also investing in bioenergy, innovation and technology, and green infrastructure; and supporting Indigenous communities and communities impacted by the phasing out of coal through energy efficiency and renewable energy programs.



ALLCOT

Being an active participant in the environmental markets since their inception, ALLCOT has grown and evolved into a strong advocator for carbon pricing mechanisms. This is fueled by our journey from a carbon trade participant to a company active across the whole value chain that is the carbon market lifecycle.

Much of our work in advocating carbon pricing is by engagement, education and more importantly, a continued dialogue with the private sector.

Recently, we are taking the opportunity to raise awareness of businesses on their environmental impacts by being speakers or panelists at events,

such as the Fitur in Spain which is one of the largest travel fairs in Europe. Over the years, our expertise in serving the private sector has allowed us to broaden our approach to a wider portfolio of services we provide, especially in the travel and hospitality sector.

Also, in collaboration with ITH, a leading hospitality institution in Spain, we developed a guide for self-evaluating business operations with suggestions on how to reduce climate impacts prior to offsetting emissions. The guide has been distributed to several thousand ITH member hotels, raising awareness in the sector.

AXA

As a long-term institutional investor, AXA's answer to the regulatory framework established by the Paris Agreement is two-fold: 1) testing the alignment of our investments with the International Energy Agency's "2°C" scenario and 2) testing the contribution of our investments to the energy and ecological transition measured by the percentage of company revenues derived from "eco-activities" or so-called "green share."

During both COP21 and COP22, **AXA supported the introduction of a meaningful**

carbon price and the need for financial rules and regulations that encourage and support quality, long-term investment.

With the Carbon Pricing Leadership Coalition, AXA hopes to continue to build this momentum and contribute to recommendations that will support the "mainstreaming" of climate-related risks disclosure, and will encourage an informed understanding of the necessity to develop a strong, meaningful and transformational carbon price.

Baker McKenzie

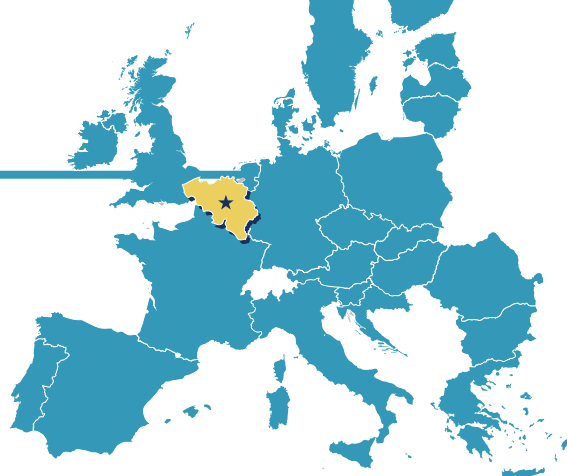
Baker McKenzie has become the first law firm to join the Carbon Pricing Leadership Coalition (CPLC).

The international firm with offices in 47 countries participated in COP 21 that produced the Paris Agreement. At the summit, the French government awarded the Chevalier National Order of Merit to Rick Saines, who heads up Baker & McKenzie's North American climate change practice, for his contributions.

"We have a long-standing commitment to helping companies respond innovatively to the risks – and opportunities – of climate change law and regulation anywhere around the globe."

- MARTIJN WILDER AM, HEAD OF BAKER MCKENZIE'S GLOBAL ENVIRONMENTAL MARKETS AND CLIMATE CHANGE PRACTICE

CARBON PRICING LEADERSHIP STORIES



Belgium

A national debate to spur the transition to a low-carbon economy.

Belgium is committed to producing a low-carbon development strategy within the context of the European objective to reduce greenhouse gas emissions by 80 to 95% by 2050 compared to their 1990 level.

Recent analyses show that such a transformation is technically possible and can be achieved in Belgium through several possible trajectories. The analysis of the macroeconomic impacts of these trajectories also demonstrates that the investments required by the low carbon transition could stimulate growth and employment through – among other things – energy efficiency gains, and generate important co-benefits in terms of air quality, health and energy security.

Putting a price on carbon emissions is a central policy tool to align investment, consumption and behavior with the necessity to reduce greenhouse gas emissions and steer the economy towards a low-carbon, climate-resilient future.

In January 2017, the Belgian Federal Climate Change Service started a national debate on carbon pricing to discuss the implementation of such an instrument in Belgium. The Belgian National Debate on Carbon Pricing will bring together all national stakeholders (enterprises, trade unions, academics, NGOs, etc.) to discuss in detail how a national carbon pricing framework could be designed for the sectors not covered by the European emission trading system.

Structured around fact-based analysis, the dialogue will build on the numerous studies and recommendations by national and international organizations on the issue of carbon pricing and energy taxation, including those by the Carbon Pricing Leadership Coalition.

This initiative is planned to reach completion at the end of 2017 and will result in a proposition of potential implementation modalities for a national carbon price in Belgium.



Useful links

- The web-page of this national debate (in FR): <http://www.climat.be/fr-be/politiques/politique-belge/politique-nationale>
- The official web-page of the project 'Low-carbon Belgium by 2050': <http://www.climat.be/2050/fr-be/accueil/>

"In addition to the emission reductions it allows to achieve, carbon pricing also carries significant economic outlooks; involving all relevant stakeholders when designing such a measure is key to reap the many socio-economic opportunities linked to the low-carbon transition."

**- MRS. MARIE CHRISTINE MARGHEM,
BELGIAN FEDERAL MINISTER OF
ENERGY, ENVIRONMENT AND
SUSTAINABLE DEVELOPMENT**

BP has been a long standing advocate for carbon pricing and believes a **well-designed carbon price provides incentives for everyone to play their part. Carbon pricing provides a flexible, comprehensive mechanism to reduce greenhouse gas (GHG) emissions throughout the economy at lowest cost.** We joined several other oil and gas companies in calling on the UN and governments to support carbon pricing ahead of the Paris climate talks.

BP works to understand and demonstrate the benefits of carbon pricing. We require our major

projects in industrialized countries to apply an internal carbon price of \$40/tonne CO₂e and to stress-test with higher prices.

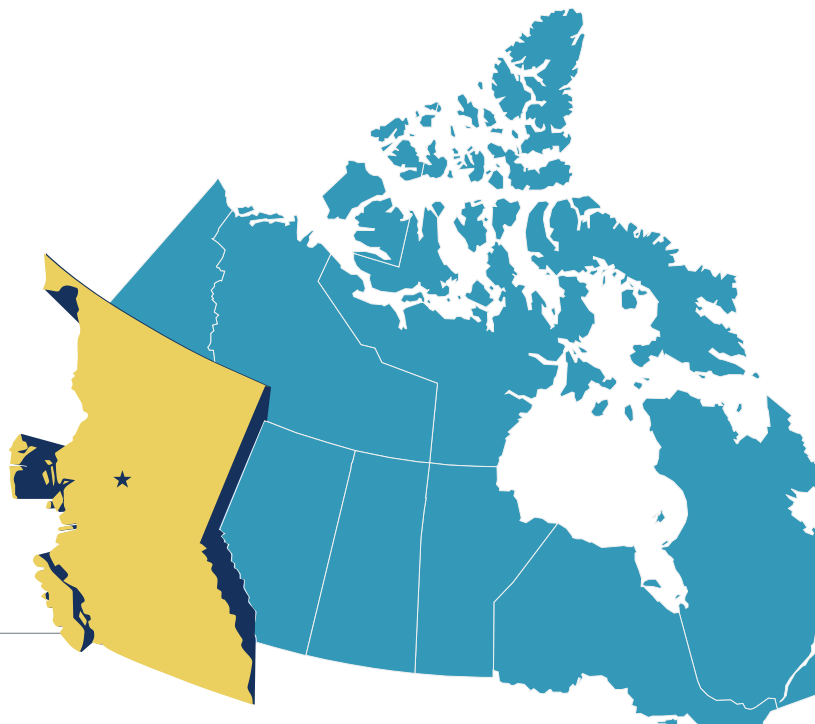
We have been active in external carbon pricing systems since their inception, both as a regulated entity that pays a carbon price and as a market participant. In 2016, our financing of low-carbon project activities resulted in offsets representing annual emissions reductions of more than 20Mte of CO₂ equivalent.

British Columbia

In 2008, the Province of British Columbia, Canada launched North America's first revenue neutral carbon tax. Since then, B.C.'s carbon emissions have decreased while their economy has grown.

A central innovation of the B.C. carbon tax is that it is revenue neutral – every dollar collected is returned to British Columbians in the form of tax relief. A key to achieving real emissions reductions and continuing the transformation to a low carbon economy in B.C. has been the close collaboration with all stakeholders from businesses to other levels of government. The approach has been successful - independent studies have shown that the Province's \$30/tonne carbon tax has reduced B.C.'s emissions in the province by 5 to 15% from what they would have been in the absence of a tax.

The story of British Columbia's carbon tax has also influenced national climate policy in Canada. The design and operation of B.C.'s revenue neutral carbon tax has informed the Pan-Canadian Framework on Clean Growth and Climate Change, Canada's national climate strategy. **Eight years of experience and results have demonstrated the key design features of a successful carbon price and the real potential for strong environmental and economic results.** In recognition of this, B.C.'s revenue neutral carbon tax was honoured last year with a 2016 UN Momentum for Change Award.



CARBON PRICING LEADERSHIP STORIES



Canada

In December 2016, Canada's First Ministers announced the Pan-Canadian Framework on Clean Growth and Climate Change (PCF), which includes pricing carbon pollution across the country by 2018 as a core element. The actions taken under the Framework to reduce greenhouse gas emissions will contribute to meeting or exceeding Canada's Nationally Determined Contribution.

The approach to pricing carbon pollution under the PCF provides provinces and territories the flexibility to decide how to implement carbon pricing policies – be it a direct price or a cap and trade system – and on how to reinvest the revenue raised in their jurisdiction.

The pan-Canadian approach to pricing carbon pollution is a good example of policy innovation in pricing carbon pollution in the context of a federal state, where each sub-national jurisdiction has different economic, political and social circumstances, and where some sub-national jurisdictions have established carbon pricing systems that are dissimilar to each other while others are in the process of developing carbon pricing systems

that are suitable for their circumstances. The Government of Canada's approach to obtaining widespread support to the inclusion of carbon pricing as a central element of the PCF is instructive. **The approach was based on emphasizing that environmental protection and economic growth go hand in hand.** This message was delivered and reinforced through working with third party think tanks like Canada's Ecofiscal Commission and financial experts like Mark Carney. The government also engaged businesses, environmental groups, Indigenous organizations, municipalities and individuals in numerous town hall meetings and through an interactive website, where Canadians shared more than 13,500 ideas and comments. Canada's Minister of the Environment and Climate Change, Catherine McKenna, also led outreach to Canada's finance sector and to corporate Canada. This resulted in numerous business associations and individual companies and corporate leaders providing public expressions of support for carbon pricing, and in over twenty Canadian companies joining the Carbon Pricing Leadership Coalition in July 2016 enabling them to learn from their peers and to join the discussion on the way forward on carbon pricing.

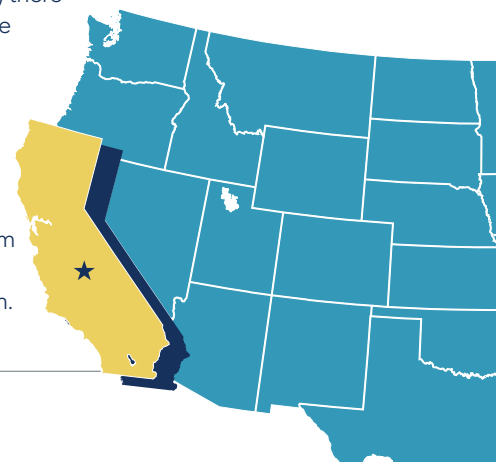
California

From its inception, the Global Warming Solutions Act (AB32), a California law passed in 2006, recognized the importance of California's climate leadership and engagement with other jurisdictions, and directed the California Air Resources Board (CARB) to consult with the federal government and other nations to identify the most effective strategies and methods to reduce greenhouse gas (GHG) emissions, manage GHG control programs, and to facilitate the development of integrated and cost-effective regional, national, and international GHG reduction programs.

California undertook a two-pronged approach: first, we assessed our **State-specific circumstances to develop measures that would apply specifically in California; and second, we simultaneously**

assessed which measures might lend themselves, through careful design and collaboration with other interested jurisdictions, toward linked GHG reduction programs.

Today, California's Cap-and-Trade Program is linked with Québec's program and ongoing discussions to link with Ontario's emerging emissions trading system are underway. California also shares information on the Cap-and-Trade Program with international delegations interested in developing carbon pricing. Notably, there are design features of the State's Cap-and-Trade Program that have been incorporated into other emerging and existing programs, such as the European Union Emissions Trading System and China's emerging national trading program.



CEBDS

CEBDS, which represents 70 of Brazil's largest business groups, launched its second publication on carbon pricing at the COP22 in Marrakesh. Titled "Carbon Pricing: What the business sector needs to know to position itself," the publication covered the effectiveness of carbon pricing in reducing emissions, benefits to socio-economic development, impacts on

the competitiveness of different sectors, and an overview of the various mechanisms that countries are adopting.

During 2017, CEBDS intends to continue promoting and discussing the Carbon Pricing study and strengthen the dialogue around carbon pricing with the Brazilian government and among Latin America leaders.

Chile

Chile has undertaken reforms to shift its energy reliance from fossil fuels to renewable sources.

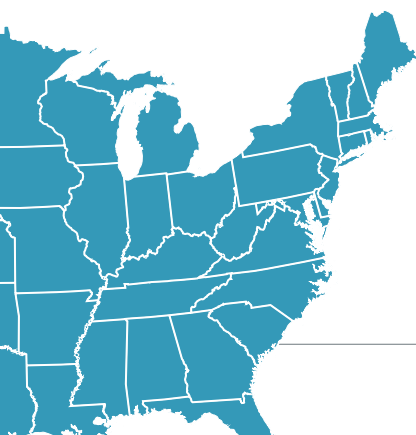
In 2014 renewable energy production doubled production increasing competition in energy markets and reducing pricing for renewables to almost half. Also in 2014, Chile introduced a tax on CO2 emissions as part of a general tax reform package. The green tax law included a levy of \$5 a ton on CO2 emissions from stationary sources with boilers and turbines.

The downstream tax on actual emissions at the facility level was the first of its kind in Latin America. It began in January 2017 and affects approximately 90 facilities covering a third of total CO2 emissions. In addition, implementation of the tax has required detailed regulation including new institutional infrastructure to manage the assessment and monitoring, reporting and verification (MRV) systems.

The development of such state-of-the-art reporting capacity facilitates the introduction of more sophisticated policy instruments such as offsets or emissions trading schemes (ETS).

"Chile's emissions are growing, and because the country is extremely vulnerable to climate change phenomena, we have introduced policies including a price on carbon emissions to move toward a green growth path."

- MARCELO MENA,
MINISTER OF ENVIRONMENT, CHILE



CARBON PRICING LEADERSHIP STORIES

Citizens Climate Lobby

Citizens Working Together to Build Political Will for Carbon Pricing

Marshall Saunders founded Citizens' Climate Lobby to empower citizen volunteers to become trusted policy advisers to their representatives, to tell the human story about climate impacts and the virtues of specific climate policies. The first local chapter of CCL was made up of 29 committed citizen volunteers. Over the last 10 years, the organization has doubled in size every year, and now includes more than 50,000 members supporting hundreds of local chapters in 30 countries, spread over 6 continents.

There are countless stories of daring, committed, imaginative citizens taking the reins and building political will by empowering other citizens,

lawmakers, journalists and business leaders to come together around carbon pricing. Michael Terungwa is just one case: As CCL's volunteer coordinator for local chapters across Africa, in just 15 months, he has helped CCL to grow from zero local chapters in Africa to now having one or more local chapters in 12 countries.

Serious climate action must be effective, transparent and fair, and that is why Citizens' Climate Lobby volunteers around the world advocate for a steadily rising fee on greenhouse gas emissions, with revenue returned to the people. It is why we support the Carbon Pricing Leadership Coalition as a new global venue for inclusive collaborative policy-making to solve climate change is the smartest, most efficient way possible.

Climate Leadership Council

The Climate Leadership Council, a network of leading companies and research organizations working to address climate issues and identify business opportunities arising from climate change mitigation, supported a cross-party working group of the Finnish Parliament in developing a proposal for establishing a low-carbon fund to finance industrial transition to carbon-neutral practices.

CLC supplied the working group with a report on global carbon pricing best practices, particularly the redistribution of carbon-pricing income that included CPLC's executive briefs. The report was met with much enthusiasm, and the working group went on to publish a proposal for establishing a low-carbon fund to finance industrial transition to carbon-neutral practices.

The proposed fund would support initiatives that advance Finland's position as a forerunner in climate-friendly technology. It would receive its capital from emission trading revenues.

"Low-carbon funds receiving capital from emissions-trading revenues in several countries have hastened industrial transformation to clean solutions while also increasing the global competitiveness of participating companies."

- JOUNI KERONEN,
CLC EXECUTIVE DIRECTOR

Colombia

Colombia recently established a carbon tax under reforms led by its finance ministry that demonstrated **the government's commitment to include environmental and sustainability issues in a more comprehensive fiscal system**

The carbon tax of roughly \$5 per ton of CO₂ generates approximately \$220 million U.S. per year. The tax applies to fossil fuels derived from petroleum and gas, which represent approximately 24 percent of the total GHG emissions in the country.

Expectations are that the tax will help reduce over 4.3 million tons of CO₂ between 2017 and

2030. The tax will support both mitigation and adaptation issues, as proceeds from the carbon tax are earmarked to, among others, watershed conservation, ecosystem protection and coastal erosion management.

Additionally, the revenues collected from the newly implemented carbon tax will help capitalize a new national fund that supports the peace process. The fund will be instrumental in the coordination of peace and environmental policy initiatives as pillars of the country's medium-term development agenda.



Dalmia

Dalmia Cement (Bharat) Limited (a subsidiary of Dalmia Bharat Limited) is among the top five cement producers in India with total installed capacity of 25 million tonnes. **The company has incorporated climate change into its core business strategy and has set both energy and emission reduction targets.**

The company has made significant progress in their emission reductions and energy efficiency targets through industrial waste utilization (as raw material and alternative fuel), commissioning of solar energy projects and adoption of low carbon technologies in the cement sector.

Dalmia has also set **a shadow internal carbon pricing mechanism for development of a virtual credit line that helps in decision making of capital intensive low carbon technology projects.** Putting a price on carbon has turned projects feasible, when they were not before. Dalmia group is further planning to formalize this mechanism so that it percolates down the line and key decisions are taken based on this concept in order to prepare the company for the climate change mitigation related risks in the future.

"The world is rapidly changing due to climate change. The implementation of the Paris Agreement, which seemed distant, is upon the world. At Dalmia, we firmly believe in a circular economy, after all over 30% of our raw material is nothing but waste from other industries. It is a testimony to our sustainability practices that Dalmia Cement is globally acknowledged as having one of the lowest carbon footprints in its sector."

- MAHENDRA SINGHI, GROUP CEO,
DALMIA CEMENT (BHARAT) LIMITED

CARBON PRICING LEADERSHIP STORIES

Desjardins

Desjardins is taking concrete steps to fight climate change and promote the transition to a green economy. We offer a range of financial products that enable our clients and members to reduce their carbon footprints, and we have begun work to gradually improve the carbon footprint of our investment portfolio as well.

Desjardins is also engaging with policy leaders to fight climate change. Our commitments were highlighted at the end of 2016 by Guy Cormier, President and CEO of Desjardins Group. In advance of a First Ministers meeting, Mr. Cormier

joined more than 60 CEOs across Canada to co-sign an open letter which urged the Prime Minister and Premiers to take bold action to support clean growth and fight climate change, in part through carbon emissions pricing. An [editorial by Mr. Cormier](#) encouraging the First Ministers to finalize a plan on climate change was also published. We strongly support the resulting pan-Canadian plan to price carbon emissions.

Desjardins Group also contributes to policy discussions through the development of position papers related to climate change policy and other government initiatives.

Ecofys - A Navigant Company

Ecofys partnered with the Generation Foundation to investigate the impact that carbon-pricing can have along value chains right up to end consumers. The partnership, which launched a global greenhouse gas (GHG) productivity map at COP22 in Marrakech, calculated that a price \$100 per tonne applied to global GHG emissions would represent a value of approximately 6 percent of global GDP. This is equal to \$4 trillion in revenues generated by governments each year.

Carbon pricing is a key tool to decarbonize our economies, and through research and advisory, Ecofys has been supporting its growth for over two decades. Jan Vrins, global Energy practice leader, says "Ecofys will continue to work toward unlocking carbon pricing's full potential to set us on a 1.5°C path".

Useful links

- Report: www.ecofys.com/files/files/carbon-pricing-unlocked-2016-impact-on-value-creation.pdf
- Visual: www.ecofys.com/files/files/mapping-ghg-productivity-along-value-chains-the-generation-foundation.png



CARBON PRICING LEADERSHIP STORIES

EDF - Electricity of France

Electricity of France (EDF), one of the world's largest energy companies, has decreased greenhouse gas emissions in two ways in recent years.

First, it replaced some of its coal-fired production in France with gas-fueled energy. When demand for fossil fuel energy spiked in 2016, the overall increase in emissions was 40 percent less than it would have been without the prior conversion from coal to gas energy.

Meanwhile, the United Kingdom introduced a carbon price on fossil fuels used in electricity generation of £18 t/CO₂ from 2016 to 2020. EDF

realized an immediate impact, as its coal fleet in the country proved uncompetitive compared to gas-fired generation that produces lower emissions.

EDF believes a carbon price of 30€/t in France would make gas-fired plants there more competitive than coal-fired plants, and implementing that price across Europe would avoid 100 million tonnes of CO₂ emissions while giving a clear signal to investors.

At EDF, we concluded that the best and most effective way to reduce CO₂ emissions remains a price on CO₂ as our experience in the UK shows.

EDF - Environmental Defense Fund

Air travel is the world's [fastest-growing](#) source of greenhouse gas emissions, with international flights releasing enough [carbon pollution](#) to rank them in the list of the top 10 global emitters—on par with Germany or Britain. In October 2016, the aviation sector reached a major breakthrough when the International Civil Aviation Organization (ICAO) [approved a measure](#) to limit pollution from international flights at 2020 levels. Key to achieving that goal is the carbon pricing mechanism known as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). Under CORSIA, airlines will be required to purchase offsets for emissions above the carbon-neutral growth cap — keeping an estimated 2.5 billion tons of CO₂ out of the atmosphere over the period 2021-2035, and generating [tremendous market demand](#) for high-integrity emission reductions in other sectors.

EDF has made the ICAO agreement a major focus of our efforts over the past five years. Working as part of the [International Coalition for Sustainable Aviation](#), a coalition EDF helped to found nearly 20 years ago, we helped win backing for the cap and the market-based measure by providing analysis, technical support, participation on expert working groups, and outreach to policymakers and ICAO representatives.

"CORSIA has the potential to become the backbone of the emerging global carbon market and to drive greater ambition on climate action not only within the aviation sector but throughout the world, a key reason EDF engaged so heavily in getting the agreement done. To fulfill its potential, CORSIA will require strong, effective rules and safeguards, and EDF is now focused on ensuring environmental integrity through rigorous and transparent reporting, as well as clear prohibitions on double-counting of emission reductions."

**- FRED KRUPP, PRESIDENT,
ENVIRONMENTAL DEFENSE FUND**

Engie

ENGIE decided in 2015 to systematically assess its business development projects with the inclusion of carbon prices: the top management wanted to have the evaluation of the risks (physical, regulatory, etc.) climate change might imply for projects throughout their lifecycle. Including a carbon price in a project assessment is, in ENGIE's view, an effective way to take into account the costs that climate change would add to the projects, and affect their profitability over time. Putting a price on carbon changes the merit order of the various options on a given project and enlightens the option that would best drive transition choices.

At ENGIE, putting a price on carbon acts as a trigger to speed up the shift toward clean energies.

As a result, applying an internal carbon price has led the company to take the decision not to develop new coal power projects and even sale and closure of several coal power generation plants in India, the USA, the UK, and Australia: these will result in reducing our emissions by more than 30MTCO₂ and help us achieve faster our target of reducing our CO₂ emissions per kWh ratio.

G rard Mestrallet, Engie's Chairman, is also a high-level panel member of the **Carbon Pricing Corridor initiative**.

We understand the need to keep global warming well below 2 C and how much, being a large energy player, our actions and decisions are key."

- ISABELLE KOCHER, CEO ENGIE



  2017 World Bank Group

ISABELLE KOCHER,
CEO ENGIE

Photo by Engie



FINANCIAL SECTOR LEADERSHIP AND THE INVESTMENT-GRADE CARBON PRICING CORRIDORS

The recommendations of the **Task Force on Climate-related Financial Disclosures** (TCFD) outlined the need for enhanced stress testing of climate-related parameters; specifically listing internal carbon pricing as a key metric to assess climate and energy transition related risks. In response, leaders in the finance sector are starting to develop innovative methods for incorporating climate-related risk metrics into risk management and investment strategies. For example, a sub-set of financial institutions are exploring how to use carbon pricing – and the use of corporate internal carbon pricing – to help them analyze the potential impact of climate change on their operations and investment portfolios.

Among these leaders are 6 CPLC partners: **AXA, Commerzbank, Grupo Financiero Banorte, National Australia Bank, Garanti Bank, and TD Bank.**

TD Bank Group implemented an internal carbon price in order to drive emissions reductions, becoming the first North American-based bank to achieve carbon neutrality in 2010. Learnings from their “carbon neutrality and internal price on carbon have also driven an increased commitment to developing a range of low-carbon financial products including the financing for residential renewables and energy efficiency projects, insurance for hybrid and electric vehicles, and the issuance of a \$500 million green bond.” Embedding the cost of carbon in business decision-making resulted in the reassessment of investments toward low-carbon products and services.

Garanti highlights “as stated in our Climate Change Action Plan, we are now enhancing our

approach to better reflect the global trend on carbon pricing among the private sector and to further increase the share of low-carbon investments in our loan portfolio”.

In response to the new French regulatory framework requiring portfolio stress testing against low-carbon scenarios, AXA Group is developing methodologies to test “the alignment of their investments with the International Energy Agency’s “2°C” scenario”. Their process involves “assessing transition risk in high-carbon sectors and back-testing portfolios to identify a plan for stock reallocation to meet the 2°C benchmark”.

Progress has been stifled by the plethora of economic signals that impact the costs associated with high-carbon activities; making it challenging for investors to quantify carbon risk. In response, We Mean Business and CDP launched a new initiative aiming to translate the uncertainty of future carbon prices into scenarios of risk, facilitating the integration of carbon pricing into investment analysis.

The Investment-grade Carbon Pricing Corridor initiative offers a Paris-compliant reference scenario which can serve as a guide for investors to help them monetize transition risk, updated twice a year, by a panel of business CEOs and investment insiders. CEOs and senior leaders from CPLC members YesBank, HSBC, and CPFL are members of the Corridors Panel, leading the effort to determine a credible estimate of future carbon-related price signals that will be valuable for business and investors seeking to make strategic decisions consistent with a low carbon economy.





CARBON PRICING LEADERSHIP STORIES

Fortum

Fortum has been a strong supporter of the **EU emissions trading system** (ETS) from the very beginning of the system. In the revision of the ETS for 2021-2030, Fortum advocates for a more ambitious system with a better-functioning market that mitigates policy overlap.

Pekka Lundmark, CEO of Fortum, is also a high-level panel member of the **Carbon Pricing Corridor initiative**.

"Fortum strongly believes that the only way forward will be carbon pricing and use of market mechanisms that remunerate private investments. We therefore have consistently advocated for market-based, technology-neutral solutions and efficient carbon pricing as tools for decarbonization."

- PEKKA LUNDMARK, CEO OF FORTUM

France

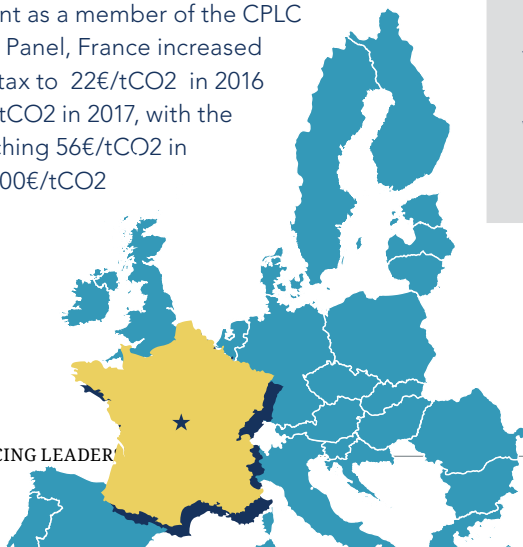
Under the auspices of Ségolène Royal, President of COP21 and Co-Chair of the CPLC High-Level Assembly, more than 200 government, business and civil society leaders gathered in Paris in June 2016 for a High Level Forum on Carbon Pricing hosted by the French government. This action-forcing event examined practical next steps to translate the concept of carbon pricing into concrete action on the ground, and once introduced, how best to recycle carbon pricing revenues.

Additionally, in line with its Energy Transition Act and with President François Hollande's commitment as a member of the CPLC High-Level Panel, France increased its carbon tax to 22€/tCO₂ in 2016 and 30,5€/tCO₂ in 2017, with the aim of reaching 56€/tCO₂ in 2020 and 100€/tCO₂ in 2030.



High-Level Commission on Carbon Prices

At the invitation of **Ségolène Royal** and **Feike Sijbesma**, Co-Chairs of the Carbon Pricing Leadership Coalition (CPLC) High Level Assembly, **Joseph Stiglitz**, Nobel Laureate in Economics, and **Lord Nicholas Stern**, have accepted to chair a new **High-Level Commission on Carbon Prices** comprising economists, climate change and energy specialists from all over the world, that will help spur successful implementation of the **Paris Agreement**. The CPLC hosts the secretariat for the Commission with the support from the World Bank Group.



Garanti Bank

In October 2015 Garanti published its Climate Change Action Plan to support Turkey's transition to a low-carbon economy. The plan focused on carbon pricing, reducing deforestation, managing climate-related water risks and implementing green office standards, and made Garanti the first bank in Turkey to commit to a carbon price.

Garanti has been utilizing a fixed "forestation" fee for carbon-intensive projects to reflect the cost of carbon in project financing. The bank applies its own shadow carbon price in evaluating the economics of fossil-fuel based and renewable energy production investments in project finance activities. Garanti commits that a minimum of 60 percent of the total funds allocated to greenfield energy production facilities will be directed to renewable investments.

The George Washington University

Graduate Certificate in Greenhouse Gas Management

The George Washington University, in cooperation with the Greenhouse Gas Management Institute, has launched a graduate certificate in carbon management in support of its partnership with CPLC. Certification prepares you to support CPLC goals for globally effective carbon pricing, and to operate and compete where carbon carries a meaningful price.

The online program is designed for professionals in business, industry, or government who need to understand and act on the pricing implications of carbon policies to create new economic opportunities. Graduates learn from internationally recognized leaders how to measure, analyze, report, and assure cost-effective emission reductions.

The online format allows you to learn with an international cohort without the need for travel. Topics covered in the four courses leading to certification include:

- Carbon management in the context of the challenges posed by climate change
- Fundamental concepts of carbon accounting, data systems, and verification
- Project-level mitigation through energy efficiency and renewable energy
- Mitigation policies and programs, including carbon markets and taxes

For further information, visit this site: <https://eemi.seas.gwu.edu/greenhouse-gas-management-online-certificate-program>

CARBON PRICING LEADERSHIP STORIES

GEM

Global Environmental Markets (GEM) designs, develops and licenses exchange technology platforms for emergent commodity markets to facilitate fair, orderly and transparent trading. Core to GEM's product portfolio is Carbon Trade eXchange (CTX), the world's first carbon offset exchange.

CTX was developed following, chairman and founder, Wayne Sharpe's participation at COP13 in Bali, Indonesia and built using the proven technology of Bartercard, a business-to-business exchange founded in the 1990's by Sharpe that processed over \$40 billion in transactions across 20 countries.

"CTX was designed to increase investment in climate action by using technology to deliver efficiency, transparency, security and enable comprehensive access to the global voluntary carbon market for both buyers and sellers" explains Mr Sharpe.

After two years and \$10m of R&D, CTX was launched in 2009, since then it has transacted tens of millions of carbon credits via direct registry and banking connections. Members buy and sell voluntary emissions reductions (VERs) securely, in their own currency and with immediate settlement of cash and credits.

In February 2017, GEM relaunched CTX with a new interface, free membership and a minimal fee structure.

GOL Linhas Aéreas Inteligentes

Last year, GOL, the second-largest airline in Brazil, joined the Carbon Pricing Leadership Coalition (CPLC).

The airline began measuring its carbon emissions five years ago when it joined Brazil's greenhouse gas reporting system protocol. Since then, GOL has expanded its fuel conservation efforts, developing a plan for projects involving operations, infrastructure and renewable fuels that contribute to the ultimate goal of decarbonization.

In parallel, GOL team is working in many distinct projects country wide, developing regional, highly integrated, and sustainable aviation fuels value chains, which will deliver sustainable, certified and cost competitive renewable jet fuel to daily operations.

"If all projects we are working today meet results, by 2023 we will have continuous sustainable aviation fuel supply, which will meet CORSIA requirements for our international routes, delivering a real decarbonization process of our operations."

- PEDRO SCORZA,
GOL RENEWABLE FUELS LEADER

HSBC

Carbon pricing is a useful tool for managing climate risk.

The Financial Stability Board Task Force on Climate-Related Financial Disclosure highlighted the need to quantify climate risks. Many HSBC clients call for carbon pricing to help prepare for the low-carbon economy and manage carbon risk. HSBC joined the CPLC at the highest level through Group Chief Executive Stuart Gulliver and is keen to encourage its clients to take climate risk management seriously, disclose their practices in this area and develop pathways to decarbonization to meet or even exceed the emission reduction targets agreed at COP21.

HSBC is driving climate business strategy through its Climate Business Council, and has a dedicated "Sustainable Financing Unit" to develop content and products for Global Banking and Markets — HSBC's investment bank — to help mobilize sources of sustainable finance.

HSBC also is a lead issuer of green bonds, and one of only three banks accredited to the U.N. Green Climate Fund and signatories to the Montreal Carbon Pledge.

Sherard Cowper-Coles, HSBC Holdings Group's, Group Head of Government Affairs is also a high-level panel member of the **Carbon Pricing Corridor initiative**.

"HSBC believes that major global institutions have an essential role to help finance the transition, and the innovative solutions, needed for the low-carbon economy that will keep global temperature increase below 2°C."

- **STUART GULLIVER**,
GROUP CHIEF EXECUTIVE, HSBC

Iberdrola

Iberdrola's business strategy towards climate protection and sustainability started 15 years ago, and since then the company has multiplied by five its asset base to reach 28 billion euros in renewable assets becoming a world leader in wind energy. Iberdrola has set up an internal carbon price to drive investment decisions and since 2000 it has reduced its European emissions by 75% and achieved recurrent recognition in the key sustainability and climate indices.

Iberdrola's strategy is fully aligned with the Sustainable Development Goals and as such it has set ambitious targets to reduce emissions by 20% in 2020 and by 50% in 2030 with respect to 2007 and become carbon neutral by 2050.

Through participation in multilateral organizations Iberdrola supports robust carbon pricing signals based on the 'polluter pays principle' on an economy-wide basis. To reach wider audiences, Iberdrola co-organized with the UN Global Compact Network Spain the COP22 labelled-event Moving for Climate NOW uniting institutions, businesses and civil society on ambitious, broad and urgent climate action.

At Iberdrola we firmly believe that fighting climate change translates into opportunities for growth and prosperity and in achieving our goals we are determined to promote the urgent and meaningful actions required at a global scale.

Jose Ignacio Sanchez Galan, CEO of Iberdrola, is also a high-level panel member of the **Carbon Pricing Corridor initiative**.

"For Iberdrola, climate change and decarbonisation are an opportunity fully compatible with sustainable growth and profitability. Carbon-price signals are a driver to incentivise clean-energy investment and technology, and create the market frameworks to support the transition to a decarbonized energy model."

- **IGNACIO S. GALÁN** -
CHAIRMAN & CHIEF EXECUTIVE OFFICER

CARBON PRICING LEADERSHIP STORIES

ICAP

The International Carbon Action Partnership (ICAP) was founded in 2007 by leaders of national and subnational governments to exchange knowledge and experiences on emissions trading (ETS). Since then, ICAP has grown to include 35 Member and Observer governments from four continents and has established itself as the key knowledge hub on emissions trading worldwide. The technical

dialogue within ICAP helps to build trust among ETSs around the world, thus laying the groundwork for systems to collaborate more closely, and ultimately link over time. Such **linking helps reduce the cost for climate mitigation, making room for increasing climate ambition, a fundamental tenet of the Paris Agreement**. In 2017, ICAP will finalize its Guide to Linking that compiles best practices and approaches to linking ETSs, based on the experience to date.

IETA

China: The Carbon Pricing Game Changer

This year will see the world's largest national emissions trading system (ETS) begin in China – a development which has the potential to substantially change the shape of the global carbon market and encourage other countries to adopt a price on carbon. The Chinese government is taking this step following its experience with seven pilot emissions trading programmes in place since 2013, themselves born out of years of participation in the Kyoto Protocol's Clean Development Mechanism, and in preparation for the implementation of Article 6 of the Paris Agreement.

The implications and potential effects of China's national ETS are immense. It will almost double the amount of global GHG emissions covered by such a system, from 9% to 16% when it launches this year. Its emissions cap, at an estimated 4 billion tonnes of carbon dioxide equivalent

annually, will be approximately double that of the EU ETS – currently the biggest market in the world. And as the largest emitter in the world, a national ETS sends a signal that China is serious about addressing its climate impact, which could spur other countries to follow suit.

IETA has been active in China for several years, most recently through its Business Partnership for Market Readiness initiative. IETA has run education and training missions with the support of the Chinese government, chiefly the National Development and Reform Commission (NDRC). IETA is perceived as a 'leadership circle' type of organisation that can help show China how a carbon market should be designed effectively.

China's national ETS is poised to be a game-changer for implementation of the Paris Agreement and change the face of emissions trading around the world. I can't wait to see its successes.

IGES

Japan has had a carbon tax of roughly \$3 per tonne of CO₂ in place since 2012, but discussion of carbon pricing stagnated in the aftermath of the Fukushima-Daiichi nuclear power plant accident that focused attention on energy security.

Now extreme weather events, along with the Paris Agreement and China's National Emissions Trading Scheme have renewed interest on carbon pricing as a climate strategy.

Japan's Ministry of Environment will set up a panel in 2017 to examine the details of

carbon pricing, and its Long-Term Climate Vision subcommittee has signaled an intention to make carbon pricing a primary strategy for drastically reducing the nation's carbon emissions by 2050.

The Japan Climate Leaders Partnership

(Japan-CLP), a business network comprising 40 companies that is a member of CPLC, has been consistently stating the need for carbon pricing since 2015. In addition, the Institute for Global Environmental Strategies (IGES), a think tank based in Japan, has translated CPLC's executive briefings on carbon pricing into Japanese.

INFOSYS

Infosys, a global leader in technology services and consulting, announced in 2017 an internal carbon price of \$10.5 per ton of CO₂e as part of its efforts to become carbon neutral in 2018.

The price will be applicable for two years and represents the cost of decarbonizing one ton of CO₂e.

Infosys has also committed to reduce its per-capita electricity consumption by 50 percent from the 2008 level and to use 100 percent renewable power for electricity by 2018.

"For many years now, Infosys has been investing in its low carbon future. But we never looked at putting a price on carbon until we joined the CPLC in 2016. When we finally did, the process of price determination was as much an eye-opener to us as the price itself. The price of \$10.5 per ton of CO₂e that we announced in January 2017 represents the true cost of de-carbonization and reflects our commitment to sustainable socio-economic development."

- RAMADAS KAMATH, EVP AND HEAD-
ADMINISTRATION, FACILITIES,
INFRASTRUCTURE AND SECURITY &
SUSTAINABILITY

35

Instituto Ethos

Ethos's main mission is to mobilize Brazil's private sector to engage in a more sustainable society. As such, Ethos hosts the Executive Secretariat for [Forum Clima](#) (Climate Forum). Forum Clima, made possible a set of public announcements in 2009 and 2015, where Brazil's biggest companies committed to support the global challenge of reducing GHG emissions and promoting a low-carbon emissions economy: [Open Letter](#) 2009 and [2015](#).

This commitment included: defining reduction targets; considering carbon pricing choices in

their decision making processes; stimulate their value chain to reduce emissions; and proactively propose instruments that would promote a low-carbon economy.

Ethos, also supported the launch of IEC, a partnership with civil society representatives such as FGV, Global Compact, CEBDS, CDP and Envolverde. The partnership produced a public statement, where more than 40 Brazilian companies called for Brazil to implement a carbon pricing mechanism.

CARBON PRICING LEADERSHIP STORIES

LafargeHolcim

LafargeHolcim, a leading player in the building materials industry, commits to reducing its emissions from production activities by 40 percent below 1990 levels by 2030. It also intends to avoid CO₂ emissions during the lifecycle of products through innovative construction solutions. LafargeHolcim is leading the sectorial dialogue in the World Business Council for Sustainable Development (WBCSD), through the chairmanship of the Cement Sustainability Initiative (CSI).

LafargeHolcim actively advocates for an increased use of carbon pricing mechanisms globally, but also calls for sharpened demand-side policies to stimulate innovation.

"LafargeHolcim actively advocates for an increased use of carbon pricing mechanisms globally. We believe that they provide an effective route to lowering GHG emissions within and across economies, if embedded in a coherent and holistic policy framework aimed at achieving a level playing field across sectors and regions."

- ERIC OLSEN,
CEO, LAFARGEHOLCIM

Mahindra

In October 2016, Mahindra & Mahindra, a utility vehicle and farm solutions provider that is the flagship company of the Mahindra Group, became the **first Indian company to announce an internal carbon price**.

The price of \$10 per ton of carbon emitted has sparked innovation and alternative thinking within the business, resulting in significant reduction of operational costs to make Mahindra & Mahindra more competitive.

The Mahindra Group has set the goal to reduce its carbon footprint by 25 percent over three years. Projects identified so far include converting all lights to LEDs and using renewable power.





IMF

WORLD BANK GROUP

CARBON PRICING LEADERSHIP STORIES



Mexico

In February 2017, the **Mexican Ministry of Environment and Natural Resources** (SEMARNAT) hosted a meeting in Mexico City of more than 250 officials from governments, international organizations, development banks and the private sector titled “[The Advantage of International Cooperation in Achieving Regional Mitigation Goals in the Americas](#).” Along with the exchange of ideas and good practices on implementing carbon markets in the region, the event brought the signing of two Memoranda of Understanding.

The **International Emissions Trade Association** (IETA) and the **Mexican Business Council for Sustainable Development** (CESPEDES) agreed to collaborate on developing a comparison of core policy elements of existing carbon markets and a high-level roadmap of the potential scope of a Mexican carbon market, with a view to

enabling future linking with other North American markets.

In addition, the **Environmental Defense Fund** (EDF) will support **SEMARNAT** and the **California Air Resources Board** (CARB) in implementing the Action Plan they have established. Based on conversations at the event, SEMARNAT and the Mexican Business Coordinating Council (CCE for its acronym in Spanish) will create a public-private working group that will focus on the development of a Mexican carbon market.

Also, the Mexican government has confirmed it will host the 11th edition of the **Latin America and Caribbean Carbon Forum** later in 2017, an opportunity for local, regional and international leaders from governments, the private sector and civil society to advance the carbon pricing dialogue and agree on actions fostering the transition to a low-carbon global economy.



Researching carbon pricing to inform national and international policy

As part of the Institute's commitment to addressing climate change, researchers are examining carbon pricing strategies and policies to inform national and international dialogues. Among other activities related to carbon pricing, over the past year, MIT researchers from the Joint Program on the Science and Policy of Global Change, Energy Initiative, and the Center for Energy and Environmental Policy Research have conducted several studies on carbon pricing, yielding the following findings:

- A carbon tax is needed to enable a transition away from fossil fuels and toward clean energy sources.
- Linking emissions trading systems in developed and developing countries through an international carbon market could yield environmental and economic benefits.
- Innovative use of the revenues generated by carbon taxes or emissions permit auctions might help overcome common political barriers and help accelerate climate mitigation.
- An enhanced cap-and-trade system can help China, the world's top carbon emitter, shift from coal to natural gas and thereby cut emissions and improve air quality.
- By using carbon pricing in combination with energy price reforms and renewable energy support, China could reach significant levels of emissions reduction without undermining economic growth.

- Carbon emissions trading would be more effective than mileage standards in reducing greenhouse gases in the European Union's transportation sector.

Key MIT researchers examining carbon pricing include Valerie Karplus, Christopher Knittel, Sergey Paltsev, John Reilly, and Niven Winchester.

MIT is also examining measures it can take on its own campus to incorporate carbon pricing. For example, MIT's facilities department has completed a shadow carbon-pricing calculator for use in capital renewal projects.

"If you ask MIT economists and policy experts what we should do about climate change, chances are they will tell you: Put a price on carbon emissions. Along with increased funding for clean energy research and development, carbon pricing is one of the most effective things we can do to speed up the transition to a zero-carbon economy."

- MARIA ZUBER,
VICE PRESIDENT FOR RESEARCH, MIT



CARBON PRICING LEADERSHIP STORIES

NEI Investments

When in 2015, Alberta announced a new climate change plan with a focus on carbon pricing, NEI investments had been already engaging with oil sands companies for years.

NEI first began leading in carbon pricing by engaging companies on the issue of carbon pricing ten years earlier. At the time, visions for government action on carbon pricing in Canada were dim, but as NEI held several leading energy companies in its portfolios, it decided to raise the idea of carbon pricing scenario planning to the energy industry with several goals in mind. These companies were active in the Alberta oil sands and NEI wanted assurance that the billions of dollars being spent on development projects would not be wasted if the government imposed effective regulation. NEI also wanted the energy companies to begin thinking about the impacts of carbon pricing and to get comfortable with the idea of integrating a potential range of carbon prices into their project planning.

At the same time, NEI knew that in order for the government to contemplate putting a price on carbon, it would need the explicit support of the energy industry – since no other industry would likely be affected more. NEI believed once energy companies were comfortable with the possible impacts of carbon pricing, they would realize they

had little to fear. So, NEI began to actively engage energy companies on the issue, including filing shareholder resolutions asking the companies to perform carbon pricing scenario planning, as well as disclosing the pricing parameters used. Because companies are required by regulation to disclose material risks to investors, NEI believed that if a company was utilizing a shadow price on carbon and was not raising any red flags about the result, then the impacts of the price must be marginal, or at least manageable. If this finding was true, it would void the argument that government couldn't put a price on carbon without crippling the energy industry. If this finding was true, it would void the government's argument that it couldn't put a price on carbon without crippling the energy industry. As expected, the country's highest carbon industry leaders agreed that the impacts of the pricing would not be material.

"We believe the growing momentum for carbon pricing promises to make 2017 an important year in the move to a low-carbon energy system and are pleased with the progress made, and leadership shown, by some of Canada's highest carbon industry leaders."

- BOB WALKER, VICE PRESIDENT
ESG SERVICES, NEI INVESTMENTS

Netherlands

The government of the Netherlands was among the very first to substantially support CPLC's official launch during COP21 in 2015. At the time, Minister Sharon Dijksma underscored the crucial importance of clear price signals as direction signs towards a climate resilient future.

The Netherlands continued its generous support into 2017, as a reflection of Minister Dijksma's opening remarks at COP22 in Marakech and other high-level dialogues: "if you value it, put a price on it". The Netherlands supports carbon pricing dialogue and action that aims to foster on the ground implementation notably in Latin America and Asia, and that focusses on opening closer links with the financial sector.

Delivering on a COP21 promise

In January of 2017, the Netherlands and CPLC hosted a high-level dialogue in Zurich to showcase leaders and inspire further progress to help achieve the ambitious targets to double the coverage of emissions subject to carbon pricing by 2020, and double it again within the next decade and uncover challenges ahead on the eve of the [World Economic Forum's Annual Meeting in Davos](#). The need for meaningful price signals and the potential of an intensified linkage with discussion in the financial sector and investment community were among some of the [key findings of the high-level dialogue](#).





CARBON PRICING LEADERSHIP STORIES



Norway

In 1991, Norway became the second country in the world to introduce a carbon tax. The tax covered petrol and mineral oil (including auto diesel) and CO₂ emissions in the petroleum sector. This decision reflected a growing concern about climate change and an ambitious national emissions target, as well as a **growing support for the use of economic instruments in environmental policy.**

Carbon emissions seemed well suited for taxation. However, whereas textbooks prescribe equal tax rates for all emissions, political considerations led to reduced rates and exemptions. For practical reasons proxies like liter of petrol and Sm³ natural gas are used as tax base and some extensions have been introduced.

OECD

The OECD is helping to lead the fight against climate change by supporting governments to both maximise cost-effective carbon pricing and systematically align policies for the transition through economy-wide action.

While carbon pricing is central to unlocking investment in the low-carbon transition, the fossil fuel hard-wiring of our societies means that governments must simultaneously work to solve policy misalignments across the economy to support pricing measures.

To increase transparency on carbon pricing gaps, our organization has undertaken the first comprehensive assessment of the extent to which 41 OECD and G20 countries price carbon emissions through specific taxes on energy use, in addition to carbon taxes and tradable emission permit prices. [Effective Carbon Rates: Pricing CO₂ through Taxes and Emissions Trading Systems](#) finds that 60% of carbon emissions from energy use across the countries analysed are not priced at all. Even where carbon is priced, that price tends to be low; 90% of emissions are not priced at a level that reflects even a conservative, low-end estimate of the climate damage they cause (EUR 30 per tCO₂). The intention is to support government pricing efforts by highlighting where there is scope to enhance current measures.

After the Parliament decided in 2008 to base the further expansion of climate policy instruments not on an extension of the carbon tax scheme but on carbon emissions trading, Norwegian industry and petroleum sectors have been fully integrated in the EU ETS. The scope of EU ETS has increased and now around **80 per cent of Norwegian greenhouse gas emissions are covered by either a tax or emissions trading** – or both: Emissions from the petroleum sector are covered by a CO₂ tax as well as ETS.

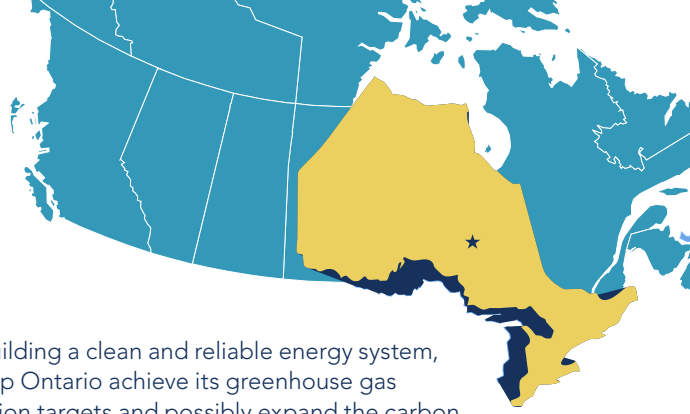
Today, a mix of instruments are in use in Norwegian policy to curb greenhouse gas emissions. **In 2010, it was estimated that new policy measures since 1990 had reduced greenhouse gas emissions by 12,6-15,2 million tons compared to a hypothetical scenario without those measures.** Along with other tax components on petrol, diesel and mineral oil, carbon pricing instruments have been a cornerstone in that policy mix for more than a quarter of a century.

The OECD is also undertaking work to increase transparency on subsidies and tax breaks to fossil fuels, which effectively act as a negative price on carbon. The OECD [Inventory of Support Measures for Fossil Fuels](#) shows just how high support for fossil fuels remains, at around \$160-200 billion annually in OECD and BRICS economies alone. It serves as a reference to governments seeking to accelerate reform of support measures.

The OECD is advising governments in the context of the German G20 Presidency on an integrated set of structural policy measures to both spur growth and promote human development, and trigger the structural transformations needed to implement the Paris Agreement. [The Growth, Investment and the Low-Carbon Transition](#) project will be launched in conjunction with the Petersberg Climate Dialogue in Berlin on May 23, 2017, in addition to feeding into 2017 G20's processes.

"While carbon pricing is central to unlocking investment in the low-carbon transition, the fossil fuel hard-wiring of our societies means that governments must simultaneously work to solve policy misalignments across the economy to support pricing measures."

- ANGEL GURRÍA, SECRETARY-GENERAL OF THE OECD



Ontario

For years, millions of tonnes of greenhouse gases were released from Ontario sources with almost no cost to emitters. The resulting changes in climate are exacting a steep price from governments, insurance companies and, most importantly, Ontario families.

Starting in 2015, the Government of Ontario put in place an ambitious policy framework to mitigate climate change and promote Ontario's transition to a low-carbon economy.

Part of Ontario's solution is a cap and trade program, which took effect January 1, 2017.

Ontario chose cap and trade because it yields the greatest emission reductions at the lowest cost. It provides incentive to businesses and households to factor in the costs of emitting carbon into their decision-making.

By law, the proceeds generated by the cap and trade program must be invested in projects that reduce, or support the reduction of, greenhouse gasses. The Climate Change Action Plan, released in June 2016, outlines the province's plan to invest cap and trade proceeds into initiatives that reduce emissions, create good jobs, generate opportunities for investment in Ontario, and help make the transition to a low-carbon economy.

The action plan, the cap and trade program and other efforts, such as investments in public transit

and building a clean and reliable energy system, will help Ontario achieve its greenhouse gas reduction targets and possibly expand the carbon market through the Americas.

Ontario will continue to lead and move forward because our future depends on the choices we make today.

"The Climate Change Action Plan and cap and trade program form the backbone of Ontario's strategy to cut greenhouse gas pollution to 15 per cent below 1990 levels by 2020. Ontario's cap and trade program is a market-based system that sets a hard cap on greenhouse gas emissions while giving flexibility to businesses and industry in terms of how they meet their caps — it is the right solution for Ontario's fight against climate change."

- GLEN R. MURRAY, MINISTER OF THE ENVIRONMENT AND CLIMATE CHANGE, ONTARIO

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Predict Ability Limited (PAL)

Enabling corporations to report the true cost of carbon

We are a UK start-up, Predict Ability Ltd (PAL), and we have determined a fair and credible carbon price. We base our modelling on insurance loss data to determine the global, weather-related impact of CO₂ emissions. We publish a spectrum of prices based on carbon impact on our website. Our modelling is productised in the software suite 'PALcarbon'. You can learn more about our underlying methodology in our book [Predicting The Price Of Carbon: How to crack the climate change code for good](#).

We offer a scientifically robust carbon pricing that is complimentary to, yet independent of, both cap and trade and carbon tax. This voluntary scheme is uniquely designed to reduce corporate climate change risk exposure. "PAL's system accurately costs the loss and damage being caused by CO₂ emissions", say Richard Clarke, PAL's Director of Research.

PAL is currently engaging internationally with governments, banks, the insurance industry, energy companies and regulators many of whom are keen to fast track their organisations towards a credible and widespread carbon pricing system.

CARBON PRICING LEADERSHIP STORIES

Put a Price On It

Put A Price On It is a campaign co-led by the Emmy award-winning series Years of Living Dangerously and the youth-led non-profit: Our Climate. **The campaign recruits and empowers young leaders to advocate for carbon pricing, while elevating the importance of the policy through film, social media, and celebrity endorsements.**

One of the campaign's first priorities has been securing carbon pricing endorsements from college and university presidents. Tom Erb, our National Field Organizer who's a student himself, initiated this effort at his school in Claremont, California. Tom's concerns around impending climate disasters and uncertainty for his future compelled him to start a group on campus that advocated for carbon pricing

by holding events, collecting petition signatures, and educating students about this critical policy tool. Thanks to their work, in a matter of months Tom and his group secured the endorsement of their college president, who went on to write a [Huffington Post op-ed](#) in support of the campaign.

Since then, the effort has taken off. Dozens of students are following Tom's example and initiating carbon pricing campaigns of their own. Six presidents are already formally on board, and over the coming weeks we expect dozens more to sign on. The Years of Living Dangerously team recently put together a short video, "How to talk to your college president", to share this strategy and inspire others to join. As momentum grows among students, Put A Price On It will continue to support young leaders to influence change-makers and lawmakers in their own communities. **It's time to #PutAPriceOnIt!**

Québec and the Western Climate Initiative (WCI)

Ten years of carbon pricing in Québec.

Ten years ago, in 2007, Québec became the first jurisdiction in North America to send a carbon price signal throughout its economy by imposing a carbon levy on fossil fuels. A stronger, more robust tool was soon needed, however, to integrate more fully the hidden economic, social and environmental costs related to greenhouse gas (GHG) emissions into the economy and business decision-making. In 2008, Québec joined the Western Climate Initiative (WCI) and began working in close collaboration with its new partners to elaborate the design guidelines and the operating rules for a regional cap-and-trade (C&T) system.

This system would provide Québec with the best guarantee of producing a real decline in GHG emissions, while at the same time successfully addressing and joining environmental protection, environmental management, the fight against climate change, and economic development objectives such as growth, efficiency, modernization and competitiveness.

The Québec C&T system, which covers about 85% of Québec's GHG emissions and is supported by a solid and reliable mandatory emissions reporting device, launched its operations in 2013 and constitutes the centerpiece of Québec's current climate change action plan (2013-2020). The Québec C&T system is helping achieve Québec's ambitious GHG emission reduction targets: - 20 % under 1990 levels in 2020 and -37.5% in 2030. In 2014, the system was linked with that of California to create the largest carbon market in North America, and the only carbon market in the world to be operated by subnational governments of different countries. A combination of vision, political will, on-going collaboration and a trusting relationship made the harmonization and linking of Québec and California's cap-and-trade systems possible.

Today, the Québec-California partnership offers a unique example of two non-contiguous jurisdictions of different sizes that are working hand-in-hand on a daily basis towards a same goal. Thanks to strong design features, such as a floor price, the WCI carbon market is today viewed as one of the most efficient and solid market of its kind in the world. In 2018, Québec's neighbouring province, Ontario, is also scheduled to join the WCI market.

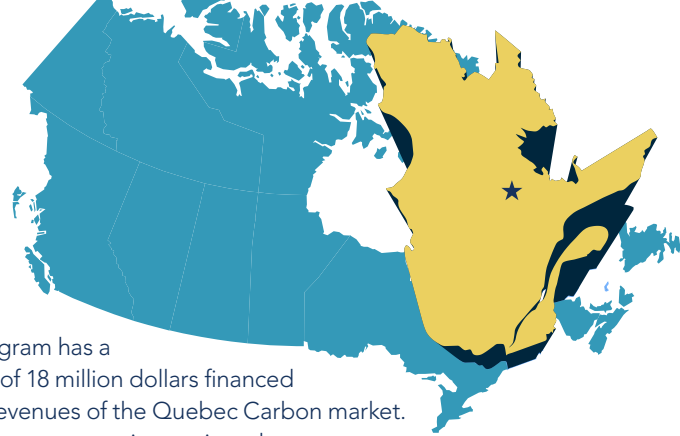
Québec and California have held their 10th joint auction of GHG allowances on February 22, 2017. The revenues from the sale of these allowances that are coming to Québec, which total close to CAD1.5 billion to this day, are all deposited in a Green Fund and used exclusively to implement GHG mitigation and climate change adaptation measures. Several of those, and the C&T system itself, provide incentives and flexibility for businesses to be more energy efficient, invest in new technologies, and to switch to less polluting sources of energy. Investments are also being made in public transit, electric vehicles, more efficient freight transport, and public awareness campaigns and programs. In short, the system encourages stakeholders and citizens to get a head start into the green economy of tomorrow for the benefit of our environment and our quality of life.

"Québec is convinced that the fight against climate change goes hand in hand with prosperous, sustainable economic development. The initiatives implemented by Québec [the Green Fund, the carbon market, the 2013-2020 Climate Change Action Plan] are helping to reduce our GHG emissions and improve the quality of life of our citizens and communities while making Québec an increasingly innovative, prosperous and low-carbon society."

-DAVID HEURTEL, MINISTER OF SUSTAINABLE DEVELOPMENT, THE ENVIRONMENT AND THE FIGHT AGAINST CLIMATE CHANGE

Québec and international cooperation

Québec is aware that strong global cooperation is essential for meeting the climate challenge and is answering the call from the United Nations Framework Convention on Climate Change (UNFCCC) for increased funding to fight climate change in countries that are most vulnerable to its impacts. To that end, Québec launched the **International Climate Cooperation Program**.



The Program has a budget of 18 million dollars financed by the revenues of the Québec Carbon market. It supports cooperation projects between Québec's academic, research, international cooperation and private sector communities and Francophone countries that are the most vulnerable to the impacts of climate change, and does so primarily through technology transfer and capacity building. Priority will be given to projects carried out in Northern and Sub-Saharan Africa as well as the West Indies.

Royal DSM

Royal DSM, the Netherlands-based global company active in health, nutrition and materials, is deeply committed to combating climate change by reducing the impact of our own operations and supply chains; and by enabling our customers through providing low-carbon products and solutions through advocating climate action.

DSM views tackling climate change as both a responsibility and a business opportunity.

The company is reducing its own carbon footprint, among other things by increasing the use of renewable energy; enabling the low-carbon economy by driving innovations in upstream and downstream low-carbon solutions; and advocating action on climate in an appropriate manner by engaging in discussions on topics such as carbon pricing. All these efforts align with Global Goal 7 (Affordable and Clean Energy) and Global Goal 13 (Climate Action).

To encourage investments in low-carbon or carbon-free technologies, DSM has started to include the financial impact of GHG emissions (scope 1 and 2) through internal carbon pricing in the valuations of large investment projects as of 2016. DSM believes will make its business more future proof.

The company also initiated a CPLC webinar series, in partnership with the World Economic Forum and Yale University, to stimulate peer learning on best practices in internal carbon pricing.

Feike Sijbesma, Royal DSM's CEO, is also a high-level panel member of the **Carbon Pricing Corridor initiative**.

"With the Paris Agreement – which has now entered into force - world leaders collectively embrace an accelerated transition to a low-carbon economy. The longer we fail to address climate change, the higher the costs of adaptation for future generations. Accelerated implementation of a meaningful carbon price across the globe can turn the notion of Tragedy of the Commons into an Opportunity of the Commons and create low-carbon prosperity for all. It not only makes business sense: our children and their children will thank us for finally stepping up."

- **FEIKE SIJBESMA, DSM CEO AND CO-CHAIR OF THE CARBON PRICING LEADERSHIP COALITION**

CARBON PRICING LEADERSHIP STORIES

RUSAL

RUSAL is a leading global aluminum producer that has one of the lowest carbon footprints in an extremely energy intensive industry.

RUSAL's core aluminum producing facilities are located in Siberia, benefiting from access to clean hydro power, which generates three to five times less CO2 emissions than aluminum production using coal-based electricity. By 2015, RUSAL had reduced its gross greenhouse gas emissions (GHG) by 53 percent since 1990. RUSAL also has been an active proponent of carbon pricing. In 2015, the company initiated the [Climate Partnership of Russia](#) comprising more than a dozen of Russia's largest businesses to advocate for economic instruments to reduce CO2 emissions and mitigate climate change.

RUSAL is also launching an internal corporate carbon pricing measure to aid strategic planning in investment and project development. Corporate carbon pricing will be implemented at all of RUSAL's operational sites worldwide to control the company's carbon footprint.

"Carbon price should be the first and universal mechanism encouraging businesses' transition to low carbon technologies."

- OLEG DERIPASKA, PRESIDENT, RUSAL

Shell

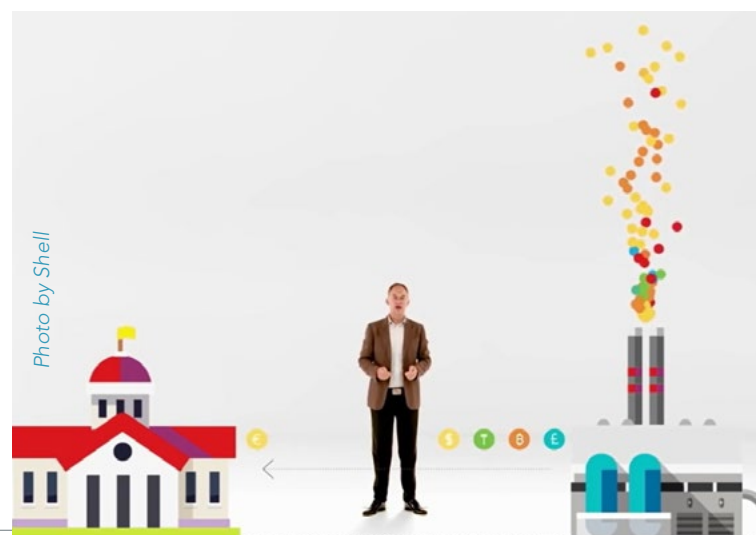
Reaching out on government-led carbon pricing systems.

Shell has been an advocate of government-led carbon pricing systems for nearly twenty years, choosing sound economic and market based principles over complex and potentially costly regulation.

In 2015 Shell CEO Ben van Beurden joined with five oil industry peers to write a letter to the UNFCCC and the COP21 president encouraging them to remember the role of government-led carbon pricing systems as they dealt with the formulation of the Paris Agreement.

In the more immediate run-up to COP21, the Chief Climate Change Adviser for Shell, David Hone, produced a short video called [Why Carbon Pricing Matters](#) that examined government-led carbon pricing systems including cap-and-trade, revenue recycling and mitigation technology options.

The video encouraged the Shell social media experts to post short clips through Facebook and Twitter, generating more than 2 million hits on Facebook.



South Pole Group

Our most recent Leadership Story comes from Colombia, where work is being done to develop better forest governance strategies to avoid deforestation, reduce carbon emissions and to encourage the conservation of strategic ecosystems – all while building the long-term resilience of local people.

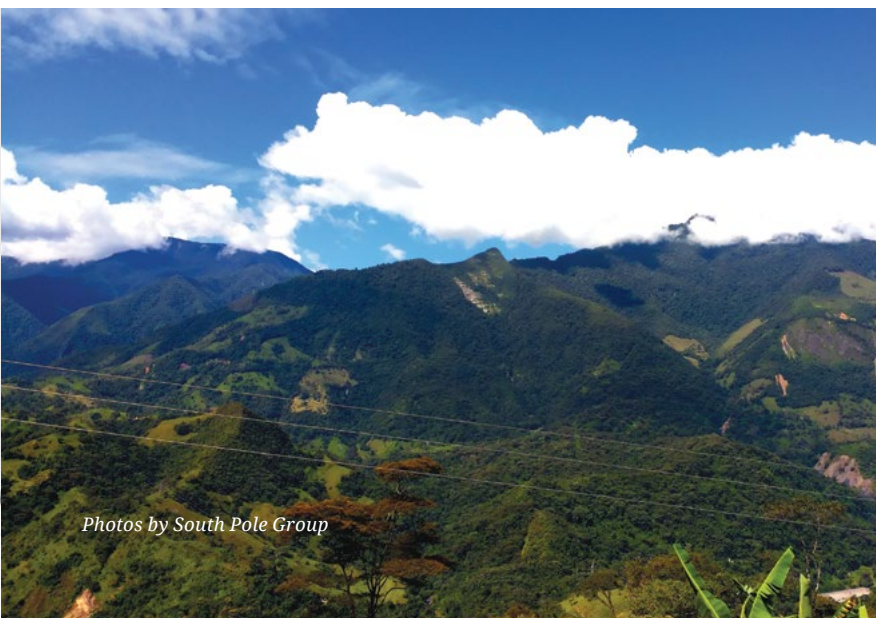
A [REDD+](#) and a Payment for Environmental Services-PSA project, carried out in the Corpochivor jurisdiction of Colombia, outlines financial incentives for stopping or reversing forest loss. The South Pole Group-managed voluntary emission reduction (VER) project has, among others, rigorously assessed the opportunities of conserving natural resources for local producers of agricultural goods.

By supporting sustainable development, environmental integrity, water risk management, and emission reductions, the project activities link to the key principles for **all Article 6 activities of the Paris climate agreement**, which are seen as the foundation for **carbon market development**. In other words: Investing in such activities via voluntary offsets combined with payment for other ecosystems services translates into reducing global greenhouse gas emissions, achieving corporate climate commitments, and working towards the goals set by the **Paris Agreement** and the **Sustainable Development Goals**.

Going forward, private sector involvement in smart carbon-cutting and PSA projects with crucial adaptation and water benefits will not only feed into corporate action on climate, it will also be key in bridging the gap between what governments can offer and the monumental demand for climate cash.

"The Corpochivor project is unique in the sense that it will be carried out by a public-private partnership, ensuring longer-term focus for the substantiated adaptation activities. The commercialization of the carbon credits from the project also have the end goal of voluntarily offsetting emissions generated by the people, communities and businesses in the project area."

- VICTOR GIRALDO, HEAD OF FOREST AND LAND USE PROJECTS, SOUTH POLE GROUP



Photos by South Pole Group



CARBON PRICING LEADERSHIP STORIES

Sweden

It is a long time priority in Sweden to fight climate change by way of a cost-effective carbon tax. This has been done in broad political consensus.

The carbon tax was introduced already in 1991, as part of a major tax reform. We started low, at 26 euro, and have step-wise raised the tax level to the current 118 euro, all per tonne fossil carbon. A lower level has been applied due to competitive concerns for industry. A focus during recent years has been to raise the lower level and it will be fully aligned with the high tax level in 2018.

Since 1990, the Swedish domestic greenhouse gas emissions have dropped significantly. At the same time our country has experienced a long-term economic development and prosperity. A key driver for the emission reductions has been the carbon tax. In particular, it has contributed to phasing out fossil heating fuels in sectors of society subject to the high tax level, namely the household and service sectors. District heating has become a major source for space heating (covering more than 90 % of all

Swedish flats) and has gone from being all fossil to basically fossil free. 70 % of the in-put in the district heating plants now consists of household waste and forestry waste products. Waste can be a resource.

The administrative costs are low. It is easy to handle for operators as well as tax authorities. The choice of measures is left to households and firms. They know best what to do to avoid the tax costs. No Governmental intervention is necessary 'to pick a winner', no evaluations of individual projects are necessary.

Tax revenues can during a transitional period be used to make viable options available for households and firms seeking non-fossil alternatives. This includes for example investments in public transport, district heating and aid schemes for improved house insulation.

In short, our long experience of a carbon tax shows that it works and gives results!

Development of the Swedish Carbon Tax
General level and industry level

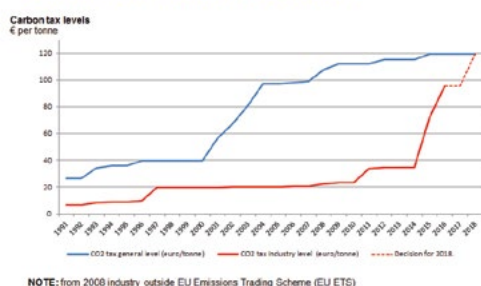


Figure 1 Development of the Swedish Carbon Tax, general level and industry level 1991-2018 (Swedish Ministry of Finance)

Real GDP and Domestic CO₂e Emissions¹ in Sweden, 1990-2015

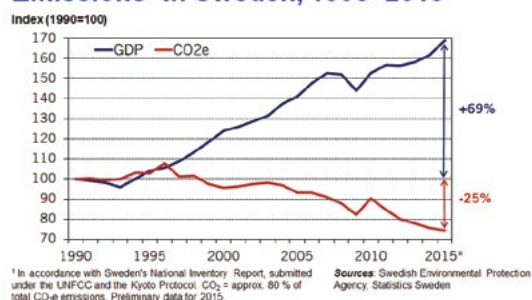


Figure 2 Real GDP and Domestic CO₂e Emissions in Sweden, 1990-2015 (Swedish Ministry of Finance)

"The Carbon tax has served Sweden well for more than 25 years: domestic greenhouse gas emissions have dropped significantly while at the same time our country has experienced long-term economic development and prosperity." - MAGDALENA ANDERSSON, FINANCE MINISTER, SWEDEN

Switzerland

Switzerland introduced a CO₂ levy on heating and process fuels in 2008, making it an early leader in carbon pricing. The same year, the Swiss Emissions Trading Scheme was launched.

The CO₂ levy increases the price of fossil heating and process fuels, creating an incentive to improve fossil fuel efficiency, invest in low-carbon technologies and switch to low-carbon or carbon-free energy sources.

Introduced gradually over a number of years, the levy was relatively low at \$12/tCO₂ when implemented in 2008. Today it stands at \$84/tCO₂.

Revenues from the levy, which totaled about \$1 billion in 2016, are refunded to the Swiss population on a per capita basis and to the business community in proportion to wages paid. About a third of total revenue from the levy is earmarked for the National Buildings Programme that focuses on reducing energy consumption in buildings, and for a Swiss clean technology fund.

To avoid double regulation, companies participating in the ETS are exempt from the CO₂ levy. Small and medium enterprises (SMEs) can also be exempt but they have to enter into binding reduction commitments. Moreover, the

ETS allows for cost efficient reductions and more entrepreneurial flexibility for participating companies.

Introducing a new tax or levy is never popular, but a careful design including the use of revenues, a gradual introduction, exemption opportunities and thorough communication greatly contributed to achieving acceptance of the Swiss carbon pricing measure.

"Carbon pricing is THE cornerstone of the Swiss climate policy, allowing to reduce emissions at lowest costs and fostering innovation in clean technologies. That's why Switzerland is supporting global carbon pricing, be it in the climate negotiations or through the CPLC. Apart from carbon pricing, we should also strive for the removal of inefficient fossil-fuel subsidies."

- STEFAN FLÜCKIGER, AMBASSADOR, SWITZERLAND



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The Climate Trust

Meeting Paris climate goals in the U.S. will require determination and collaboration. Participation from state governments and corporations will play a key role, and foundations will be vitally important in identifying grant and impact-investment opportunities that have the ability to leverage significant private finance—shifting emissions at scale.

In October 2016, The Climate Trust founded a first-of-its-kind carbon investment fund, [Climate Trust Capital](#), and provided \$2.75 million to serve as a buyer of last resort for the carbon credits it will generate. With this risk mitigation in place, Climate Trust Capital was able to successfully [raise a \\$5.5 million investment](#) from the Packard Foundation.

The Climate Trust is now interested in offering similar risk mitigation to the market as a

whole; planning to launch an [Environmental Price Assurance Facility](#), which will auction [put options](#) for environmental credits created in the U.S. to project developers and investors. Along a similar vein, California, as required by Senate Bill 1383, is looking to launch a [pilot financial mechanism](#) to assure investors of long-term value for environmental credits. **With the huge potential to reduce emissions from these markets, The Climate Trust believes these types of risk-mitigation structures are an ideal use of philanthropic capital given their potential to leverage private capital at scale.**

Significant progress is being made to shift the greenhouse gas emissions trajectory of the U.S. Anticipating an absence of federal action, the time is now for states, corporations and foundations to ensure the U.S. is not left out of global progress to mitigate climate change.

CARBON PRICING LEADERSHIP STORIES

UN Global Impact

Through the UN Global Compact Business Leadership Criteria on Carbon Pricing, nearly 70 companies from 20 sectors representing over \$2 trillion in market capitalization have taken on the triple challenge of setting an internal carbon price materially high enough to affect investment decisions, calling for effective pricing policies, and reporting progress on an annual basis.

Of these companies, 53.3 percent use a shadow price, 40 percent use an internal fee, and 6.7 percent use an implicit price on carbon. The average internal carbon price reported among these companies is at \$32.13 per tonne of CO₂ equivalent and ranges from \$2.13 to \$100 per tonne.

Companies that have aligned with the leadership criteria saved an average of 1,971,670 metric tonne CO₂/yr and up to 15,603,577 metric tons CO₂/yr by using carbon pricing strategies in their projects.

UN Global Compact companies have cited three main benefits to setting an internal price: helps companies translate carbon into business-relevant terms and engage internally; increases support and investment for energy efficiency projects; and it helps companies achieve ambitious GHG reduction targets.

For more information on the Business Leadership Criteria on Carbon Pricing, please visit <https://www.unglobalcompact.org/take-action/action/carbon>

Unilever

Unilever recognizes the risks to our consumers, supply chains and operations that climate change poses. We believe a number of policy measures are required to accelerate the transition to a low carbon economy, including the pricing of carbon and removal of fossil fuel subsidies which act as negative carbon prices.

Unilever has consistently advocated in favour of carbon pricing policies around the world. We believe that the accurate pricing of carbon, as well as the disclosure by companies of climate related risks, is necessary to ensure the efficient functioning of markets and that internal carbon pricing can help businesses future proof themselves in a rapidly changing external context.

Unilever's internal carbon pricing activities seek to reduce the carbon emissions from our own operations as a first step to considering the complete value chain.

In 2016 we implemented an internal price on carbon of EUR30/tonne for significant capital expenditure projects.

In 2017 we are piloting an approach in which we reduce capital expenditure budgets by an amount determined by the business's carbon emissions. The reductions in these budgets are being used to create an internal 'clean-tech' fund, specifically to finance carbon-reducing capital expenditure proposals at our sites. This approach supports our business strategy to become carbon positive in our operations by 2030, using only energy from renewable sources and supporting the generation of more renewable energy than we consume, making the surplus available to the communities in which we operate.

Veolia

Veolia's approach is to introduce a carbon price in its economic models where carbon pricing already exists or is going to be implemented. This procedure allows for a more objective and finer analysis of the risks, costs and opportunities linked to the CO₂ discharge from existing activities and consequently for a better management of emissions.

At the same time, Veolia is making the financial value of CO₂ emissions one of the criteria used to evaluate its projects and decisions regarding its investments. To this end, the Group has determined a price of around 30€ per ton of

CO₂ by 2030. The approach has been applied successfully to various acquisition projects in Latin America and is currently being tested in Eastern Europe where Veolia operates large heating and power plants.

Right after the Paris Agreement, Veolia created a Task Force "Strategy and Climate" under the responsibility of a member of the Executive Committee. One of its roles is to prepare the implementation of the Agreement in the countries where Veolia operates: the internal CO₂ price is one of the levers of actions selected to implement its policy.

Viña Concha y Toro

Founded in 1883, Viña Concha y Toro is Latin America's leading producer and occupies an outstanding position among the world's most important wine companies, currently exporting to 147 countries worldwide. Uniquely, it owns around 10,800 hectares of prime vineyards in Chile, Argentina and United States. In 2016, the company was included for the second time in the new Dow Jones Sustainability Index Chile, the first local sustainability index developed by the Santiago Stock Exchange and S&P Dow Jones Indices, and the only winery worldwide listed in this prestigious index.

Since 2007, Viña Concha y Toro has measured its carbon footprint and was one of the first wineries in Chile to start to systematize this indicator. From the beginning, the measurement has been supported by independent third party verification (Deloitte). The company aims to become a pioneer and leader in the development of good practices to minimize CO₂ emissions. The carbon footprint is reported to the Carbon Disclosure Project (CDP); in 2016, Viña Concha y Toro, received the distinction as the Chilean company with the highest Climate Disclosure Score.

The measurement of the company's carbon footprint covers the entire process of production and distribution. Currently, the emissions are 1 kilogram of CO₂ per bottle of 750 ml produced and distributed; the company wants to reduce this number. Aiming to achieve this objective, **during 2016 the company's Sustainability**

Committee created The Carbon Fund, a pioneering initiative on a global scale that internalizes the cost of emitting CO₂ and whose objective is to raise resources to develop CO₂ abatement projects. It's an internal charge to the emission of greenhouse gases: \$1/tonCO₂ emitted, and it's based on the premise of Environmental Economics "polluter pays".

Every area of the company participates, charging money to each one for each ton of CO₂ it emits. The measurement of the carbon footprint 2015 by department is distributed according to the next table:

Any department of the company can request a project to be considered; these will be assessed by the Sustainability and Planning Departments. The results of the assessments consider economic, social and environmental variables. The projects will be prioritized using the methodology Marginal Abatement Costs; the Sustainability Committee is the body responsible for project selection, this committee is headed by the Chief Executive Officer and two Board Members of the company.

The Carbon Fund is a commitment to invest in projects and technologies that reduce the company's carbon footprint, furthermore it supports Viña Concha y Toro's goal to reduce its CO₂ emissions by 15% over the next 4 years.

[The Carbon Fund Video](#)

CARBON PRICING LEADERSHIP STORIES

The World Economic Forum (WEF)

The World Economic Forum (WEF) has spearheaded outreach to the business community on carbon pricing, culminating in a public letter from the CEOs of eighty leading companies calling for action on climate change and identifying carbon pricing as key policy in the fight. By engaging the business community and highlighting support for carbon pricing in the private sector, WEF has helped make the

case that carbon pricing is good for the climate and good for business.

WEF has also worked with CPLC partners to create an Internal Carbon Pricing Webinar Series to share companies' experiences with internal carbon pricing and deepen understanding of the mechanics of internal pricing policies.

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WRI India

Facilitating ambitious climate action in India by driving internal carbon pricing for corporates.

In July 2014, WRI India, in partnership with CPLC facilitated the first regional webinar on carbon pricing. Since then, WRI India has been actively driving internal carbon pricing. **As a result of several sustained interactions with leading businesses, along with knowledge building workshops along with CPLC, there has been an increased awareness and willingness among the business community to use internal carbon pricing as a key tool to promote ambitious climate action.**

This initiative has successfully brought together high-level India leaders and international experts from Yale, Rusal, TOTAL and others. This resulted in several businesses, from diverse sectors like automotive, cement, financial services, textiles and information technology,

formally signing up to the Coalition.

WRI India has recognized the need to build additional knowledge bases across price discovery, operations and impact, and has been working on creating a series of knowledge products, including a primer on internal carbon pricing, how-to guides, DIY tools, impact assessment scorecards, and training and capacity building modules, to help drive the CPLC agenda in India and across the region.

WRI India strongly supports pricing carbon, and has a team dedicated to working towards bridging corporate and policy action that incentivizes low carbon development. WRI India is also part of various initiatives with organizations like World Economic Forum, CDP, TERI, UN Global Compact, Shakti Sustainable Energy Foundation, Mahindra & Mahindra, Infosys, Arvind Limited, Dalmia Cements, and Yes Bank, amongst others.

Yale

In 2014 Yale President Peter Salovey created a [task force](#) to study internal carbon pricing, chaired by Professor William Nordhaus. Provost Ben Polak, who oversees the resulting carbon charge says, “After a successful [pilot study](#) in 2015-2016, we are expanding the Yale carbon charge across campus to promote applied research on carbon pricing implementation.”

The Pilot Study

Staff assigned twenty campus buildings of diverse types to four treatment groups, with 280 remaining buildings serving as a control. All treatment groups received a custom report summarizing building energy consumption and comparing it to past performance. The four treatment pricing schemes are characterized as follows:

- Information only: Buildings received the monthly building energy report showing indicative carbon charges, but without financial consequence.
- Target: Buildings were given a 1% reduction target; they paid for emissions above this value and received funds for emissions levels below it.
- Redistributive: A revenue-neutral scheme by which buildings were compared to the group’s overall percent change in emissions, incurring charges or receiving rebates based on performance above or below baseline.

- Investment: Buildings were given funds earmarked for energy conservation investments.

Yale uses a Social Cost of Carbon of \$40/MTCDE for its carbon charge, based on [US Federal Government estimates](#) under President Obama’s Administration.

Key Takeaways

1. Internal carbon pricing shows potential for universities.
2. Though carbon pricing scheme design matters, many variations can work.
3. An effective carbon pricing scheme conveys clear information and incentives.
4. Resulting emissions reductions can be cost effective.
5. Carbon pricing benefits from experimentation.

Next Steps

“Yale will incorporate the carbon charge into campus building organizational budgets in fiscal year 2018. Schools and units will receive monthly building energy reports and will be responsible for net carbon charges at the end of the year.”

-Ben Polak, Yale University Provost

In collaboration with the [Carbon Pricing Leadership Coalition](#) and the [World Economic Forum](#), Yale is also generating a [series of interactive webinars](#) featuring companies at the forefront of carbon pricing research and implementation.

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Yes Bank

YES BANK, a sector leader on climate action, believes that putting a price on carbon — either through a carbon tax, carbon trading or other mechanisms — is an opportunity to accelerate the development of a clean economy.

YES BANK views carbon pricing as a defining factor for future business decisions for industry, investors and governments. To gain greater understanding of the cost of carbon, YES BANK implemented an internal price on carbon intensity and focused on carbon-free assets and practices to build portfolio resistance and achieve innovation at a faster rate.

The Bank has adopted a methodology to derive the price per ton of absolute carbon emission, based on estimated green infrastructure investment required for its operation until 2025, in line with its target to reducing emission intensity by 10 percent a year. Energy efficiency

strategies include switching to LED lighting, using energy efficient materials and appliances, and adhering to green building development standards.

YES BANK is the first bank globally to migrate to International Organization for Standardization certification for environmental operations for 50 percent of its locations in 2017. It is committed to mobilize \$5 billion by 2020 for climate action through lending, investing and raising capital for climate change mitigation, adaptation and resilience. To aid India’s target of meeting its Nationally Determined Contributions (NDCs) under the Paris Agreement, YES BANK also is committed to increase the percentage of renewable energy in its power portfolio, fund 5,000 MW of clean energy, plant 2 million trees, improve drinking water and offset carbon emissions of bank operations — all by 2020.

Rana Kapoor, MD and CEO, YES BANK, is also a high-level panel member of the [Carbon Pricing Corridor initiative](#).

III. LEADING THROUGH THE CPLC

Partners are the center of the Coalition's work – their leadership and action drives momentum on carbon pricing forward and is inspiring others to join the conversation. Through the CPLC, Partners have the opportunity to showcase government and private sector action, highlight the business and environmental case for carbon pricing, and work with their peers to move the discussion forward.

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Strategies for Action

There are many powerful actions Partners can take to lead the CPLC's mission and support the broadening, deepening, and linking of carbon pricing policy – strategies and stories of action are outlined below.

1. Share Your Story

Sharing your story and the reasons why your organization supports putting a price on carbon is one of the most powerful ways to drive momentum and support. By sharing your perspective and experience, you can highlight the case for carbon pricing and why both business and government support carbon pricing.

2. Reach Out to Your Region and/or Sector

Effective carbon pricing policies need to address a range of opportunities and concerns that can be unique to different business sectors or to different regions. Reaching out to your peers can be an effective way to start discussion on these issues, highlight the case for carbon pricing in different contexts, and bring new voices to the table.

Actions

- Issue a press release upon joining the CPLC to share your commitment to carbon pricing.
- Submit a blog post by C-suite executive to be highlighted on the Coalition website
- Record a video message from your organization's leader or C-suite executive making the case for carbon pricing
- Participate in case studies and share the results of your carbon pricing efforts
- Participate in CPLC webinars to share your lessons learned and best practices
- Join CPLC social media efforts to showcase your organization's work to put #PriceonCarbon and spread the word on the case for carbon pricing
- Highlight your support for carbon pricing on your website or in your publications.
- Publicly advocate for carbon pricing through op-eds, interviews, and speaking engagements

Actions

- Engage your business, trade, or other associations on carbon pricing. This can include presenting on the business case for carbon pricing, or inviting CPLC staff to present
- Spearhead the development of common statements highlighting your industry's support for carbon pricing, or the support of business, government, or civil society leaders in the region(s) where you work
- Suggest new members in your sector or region who would benefit from joining the CPLC and are interested to help lead on carbon pricing effort
- Suggest invitees for events and encourage colleagues in your network to attend CPLC presentations and dialogues to deepen their understanding of carbon pricing
- Place op-eds or articles in regional or sectoral publications on the specific case for carbon pricing in your area or industry

3. Take Internal Action

Action on carbon pricing requires more than just talk. As a CPLC Partner, you have the opportunity to lead by example. The practices and policies that work best for Partners can vary, but, through the CPLC, you have the opportunity to decide what is most appropriate for your organization and take action.

Actions

- Educate internal stakeholders on the benefits of carbon pricing
- Determine if internal carbon pricing could be beneficial for your organization and, if appropriate, establish an internal price on carbon
- Set concrete goals for action on carbon pricing within your organization
- Report progress on carbon pricing action to CDP
- Develop a consistent position and message on carbon pricing across your organization's activities
- Request CPLC assistance to explore carbon pricing policies for your organization

4. Join in Dialogue

The CPLC provides a platform for government, business and civil society leaders to exchange experience, showcase progress, and catalyze action. By engaging in CPLC dialogues, you can share your experiences with your peers and community, and learn from the experiences of others.

Actions

- Send representatives to attend CPLC dialogues in your region and learn about carbon pricing policies
- Serve as a panelist/speaker for dialogues focused on addressing issues in your area or sector
- Make internal experts and executives available to speak at events and share your organization's perspective and/or lessons learned
- Host CPLC dialogue events in your offices/venues
- Suggest industry/regional invitees that would benefit from dialogues

5. Guide the Coalition

The CPLC is guided by a rotating governance team of two High-Level Assembly Co-Chairs, a nine member Steering Committee, and six to nine Working Group Co-Chairs. Each year, Partners have the opportunity to volunteer for these position and help set priorities and oversee Coalition activities.

Actions

- Self-nominate to become a member of the Steering Committee or Working Group co-chair. Members of the governance team are confirmed every year at the CPLC's annual spring High-Level Assembly meeting in Washington, DC
- Self-nominate to become one of the two CPLC High Level Assembly Co-Chairs – a key role in leading the CPLC's action and serving as a high-level and active advocate for carbon pricing and the Coalition's work
- Contact the Secretariat directly to suggest new activities or opportunities to share the CPLC message, or suggestions for the governance team







GOING FORWARD

Working together, Carbon Pricing Leadership Coalition Partners have taken concrete steps to help drive carbon pricing action in the public and private sector, and are demonstrating the impact of leadership and collaboration. The actions outlined in this report are intended to inspire greater action and to help Partners identify ways to lead through the CPLC platform. Going forward, the CPLC will continue to work toward achieving its targets of doubling the percentages of global emissions covered by explicit carbon prices by 2020, and again by 2030.

The CPLC aims to take a holistic and comprehensive approach in engaging stakeholders across government, the private sector and civil society in key regions, and work with partners to undertake deep dives into sectoral issues relevant to policymakers and mobilize stakeholders in key economic sectors. The CPLC welcomes new ideas, contributions, and leadership initiatives from all its Partners as it works to achieve the Coalition's goal to expand carbon pricing globally.



Government:

Alberta
Belgium
British Columbia
California
Canada
Chile
Colombia
Ethiopia
Finland
France
Germany
Italy
Ivory Coast
Japan
Kazakhstan
Mexico
Morocco
Netherlands
New Zealand
Northwest Territories
Norway
Ontario
Quebec
Spain
Sweden
Switzerland
United Kingdom

Private Sector:

Abengoa
Acciona
AGL
AGL Energy
Aimia
Air Canada
ALLCOT Group
AMATA
AP4
Arvind
ASBC
Atmoterra
Atos SE
AXA
Baker McKenzie
Bank Australia
Barco NV
Barrick Gold Corporation
BG Group
BHP Billiton
Blackstone Energy Services Inc
BMO Financial Group
BP
Braskem
Broad Group
BT Group
Calidda
Canadian Tire Corporation
Carbon Engineering
Carrefour

Catalyst Paper Corporation
Cement Association of Canada
Cemex
Cenovus Energy Inc.
CIBC
CIFI
Coca Cola HBC AG
CommerzBank
Cowan
CPFL
DAI Global
Dalmia Cement
Danfoss
Daniels Power Corporation
Desjardins Group
DNVGL
Ecofrotas
Ecofys – A Navigant Company
Ecoterra
EDF (Utility)
EDP-Engias de Portugal
Ekbd Consult
EKI Energy Services Ltd.
EllisDon
En+ Group
Enagas
Enbridge
Enel
Engie
Eni
Eskom
EY
Ferrovia
Fortum
Garanti Bank
Gas Natural Fenosa
Global Environmental Markets
Gol Linhas Aéreas Inteligentes
Groupe ADP
Grupo Financiero Banorte
Hindustan Construction Company
HSBC
Iberdrola
IKEA Canada
Infigen Energy
Infosys
Keyassociados
Kruger Inc
LafargeHolcim
LATAM Airlines Group
Loblaw Companies Limited
Mahindra
Man Group
Michelin
Milbank
National Bank Australia
Nature Bank
NEAS Energy
NEI Investments
Nestle

Nordea Bank
Nouveau Energy Management
Novartis
Novozymes
OHL Group
Ontario Power Generation
Origin Energy
PG&E
Portafolio Verde
Predict Ability Limited (PAL)
Redshaw Advisors
Resolute Forest Products Inc.
Royal Bank of Canada
Royal DSM
Royal Philips
Rusal
Saint-Goabin
Schneider Electric
Scotiabank
Skerbank
Shell
Shell Canada
Siemens
Sindicatum
SkyPower
Solvay
South Pole Group
SSE
Star Rapid
Statkraft
Statoil
Suez Environnement
Suncor Energy
Tata Group
TD Bank
Teck Resources
TELUS
The Co-operators Group Limited
The Toronto Dominion Bank Group
Total
TransCanada Corporation
Unilever
Veolia
Vestas
Viña Concha y Toro
Visao Sustentavel
Yes Bank
Zenith Bank

Strategic Partners:

ABIQUIM
BSR
BTeam
C2ES Center for Climate and Energy
Solutions
Caring for Climate
CDP

CEBDS
CEPS Centre for European Policy
Studies
Ceres
Citizen's Climate Lobby
Cleantech21 Foundation
Climate Leadership Council (CLC)
Climate Solutions Group Limited
Climate Strategies
Climate Transparency Initiative
CMIA The Climate Markets and
Investment Association
Coalition for Rainforest Nations
EDF Environmental Defense Fund
EpE Entreprises pour
l'environnement
Fundación Natura
George Washington University,
Environmental and Energy
Management Institute (EEMI)
Gold Standard Foundation
I4CE
Siemens
ICAP
ICTSD International Center for Trade
and Sustainable Development
IDEAcarbon
IETA
IFC
IGES Institute for Global
Environmental Strategies
IIGCC The Institutional Investors
Group on Climate Change
IMF
Instituto Ethos
Japan Climate Leaders' Partnership
(CLP)
Klimaatplein.com
MIT
OECD
Prince of Wales Corp Leadership
Group
Put a Price on It
Sekem Group
The Climate Group
The Climate Trust
The Nature Conservancy
The Shift Project
UCL
UN Foundation
UN Global Compact
Union of Concerned Scientist
WBCSD
We Mean Business
WEF
World Bank Group
WRI
WWF
Yale



To share your story, or for any communication needs,
contact Isabel Saldarriaga at: isaldarriaga@worldbankgroup.org.

To learn about joining the CPLC, contact info@carbonpricingleadership.org.

For additional information and to access our library of resources,
please visit our website: www.carbonpricingleadership.org



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