

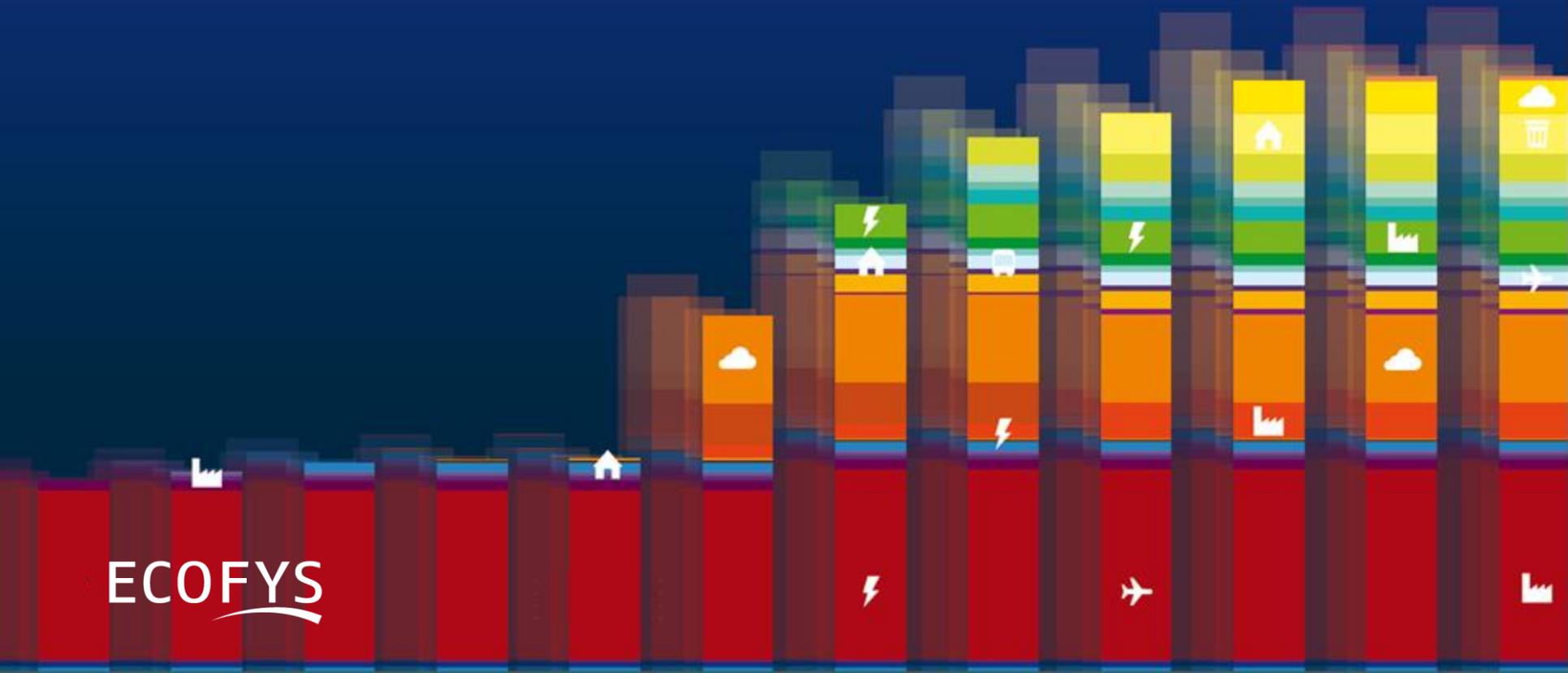


WORLD BANK GROUP
Climate Change

State and Trends of Carbon Pricing

Santiago, Chile
September 2015

2015

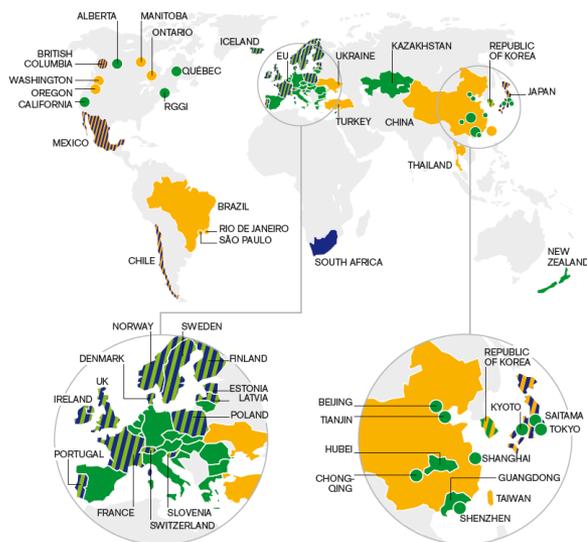


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State and Trends of Carbon Pricing 2015 report

Objective

- To support the growing momentum for carbon pricing initiatives worldwide, the report will target the public and private stakeholders engaged in their design and implementation, and also provide critical input for the negotiations leading to the Conference of the Parties (COP21) in Paris.

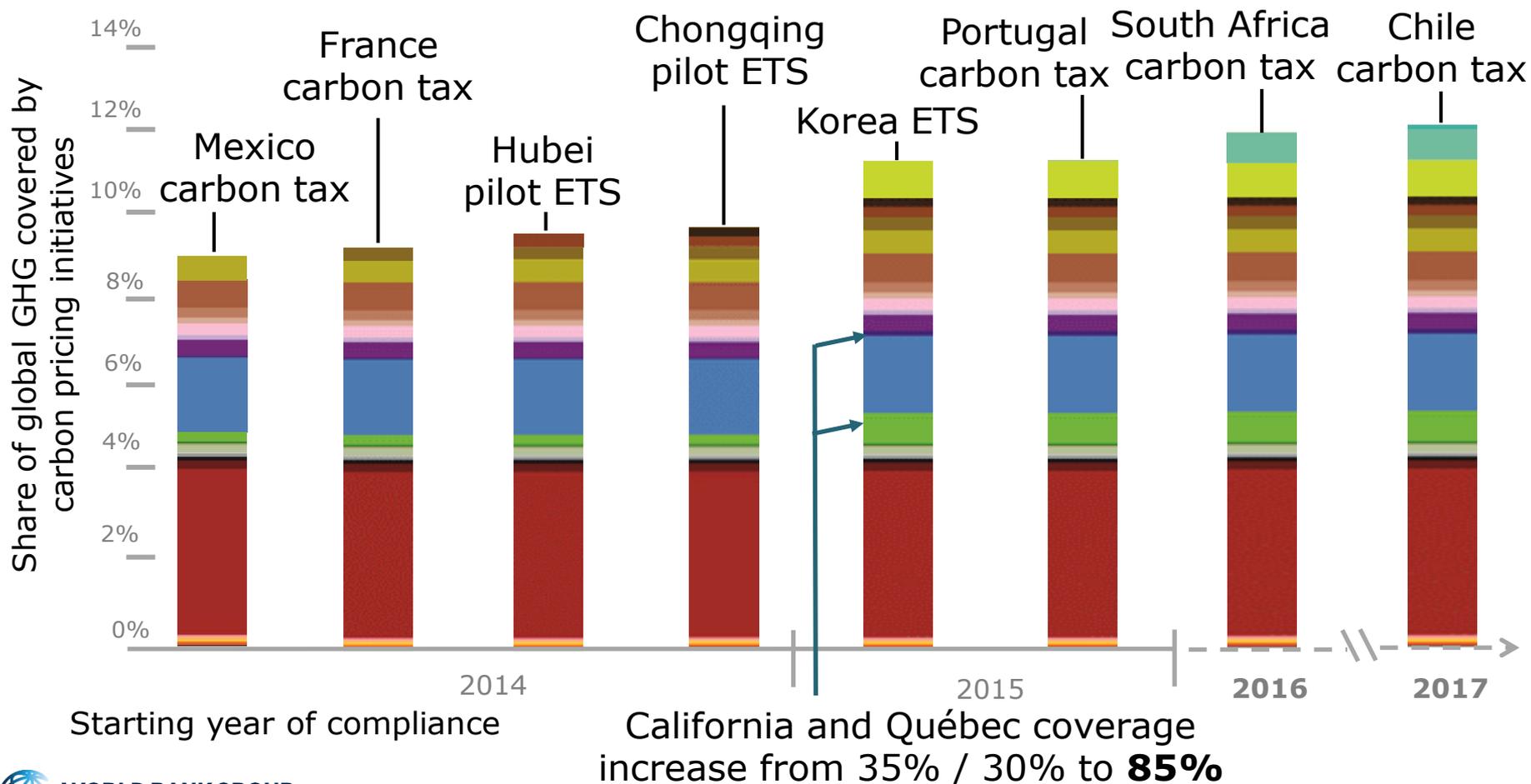


Key Components

1. Carbon pricing status and overview. Updated overview of existing and emerging carbon pricing initiatives around the world—including national, sub-national and corporate activities.
2. Analytical issue focus: Competitiveness and leakage. A focused analysis of competitiveness and carbon leakage, and their impact in the development of national and sub-national CP initiatives.
3. A forward-looking assessment of the advantages of international cooperation in reaching stringent global targets. A review of existing modeling work will provide qualitative and quantitative assessment of saving potentials.

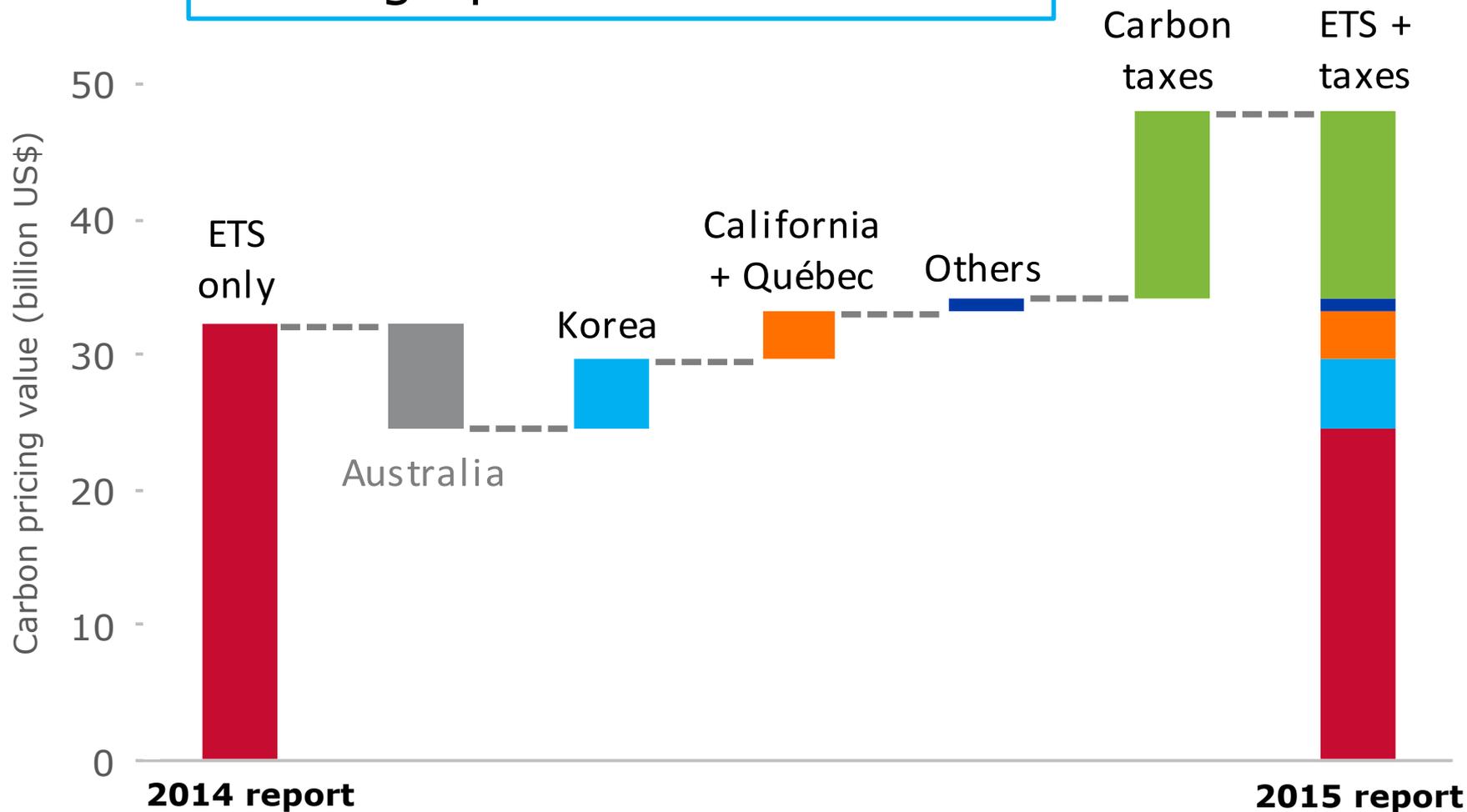
New carbon pricing initiatives since early 2014

About 7 GtCO₂e or 12% of global GHG emissions, a threefold increase over the past decade.

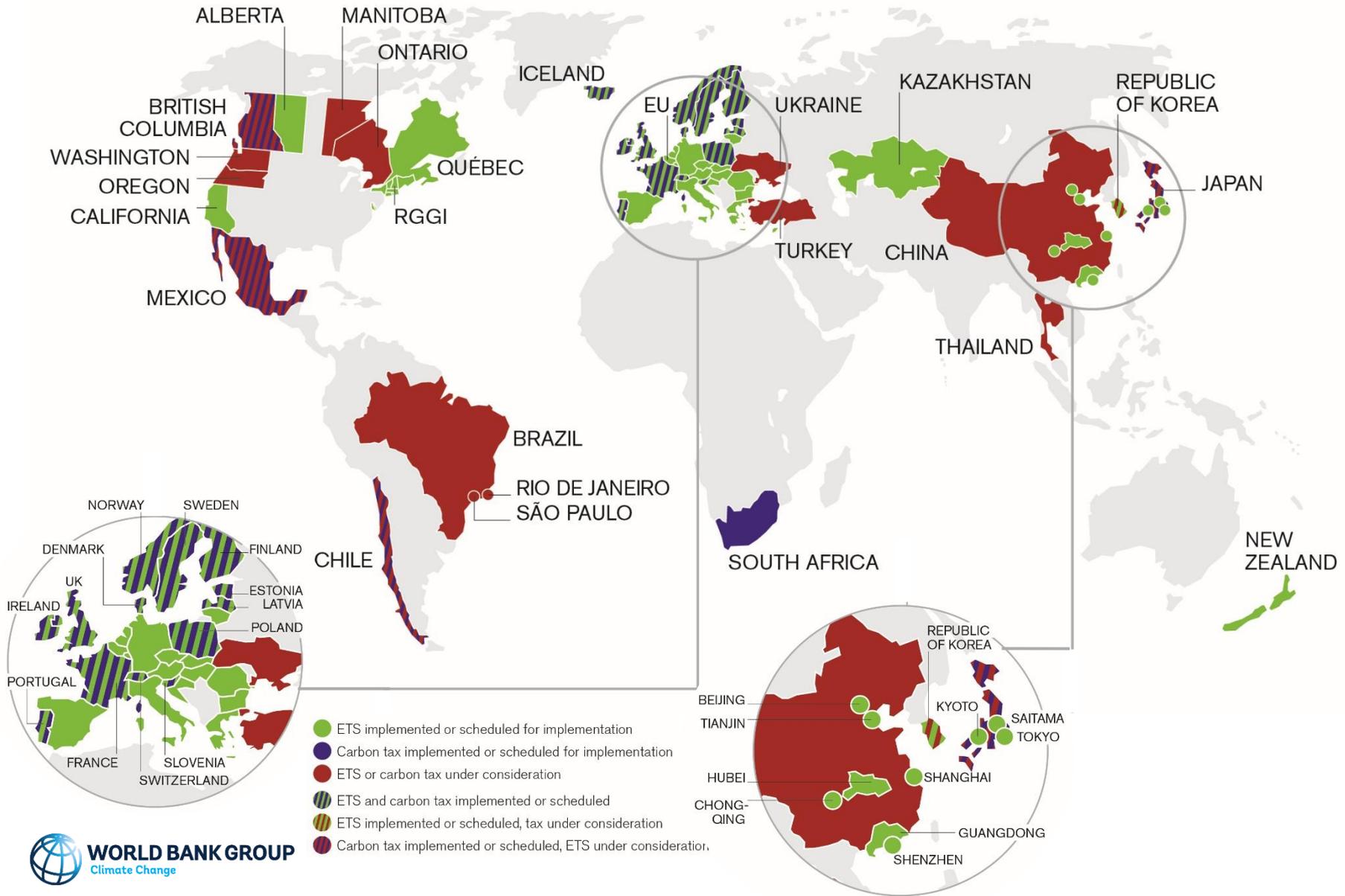


Existing initiatives are now worth about US\$50 billion

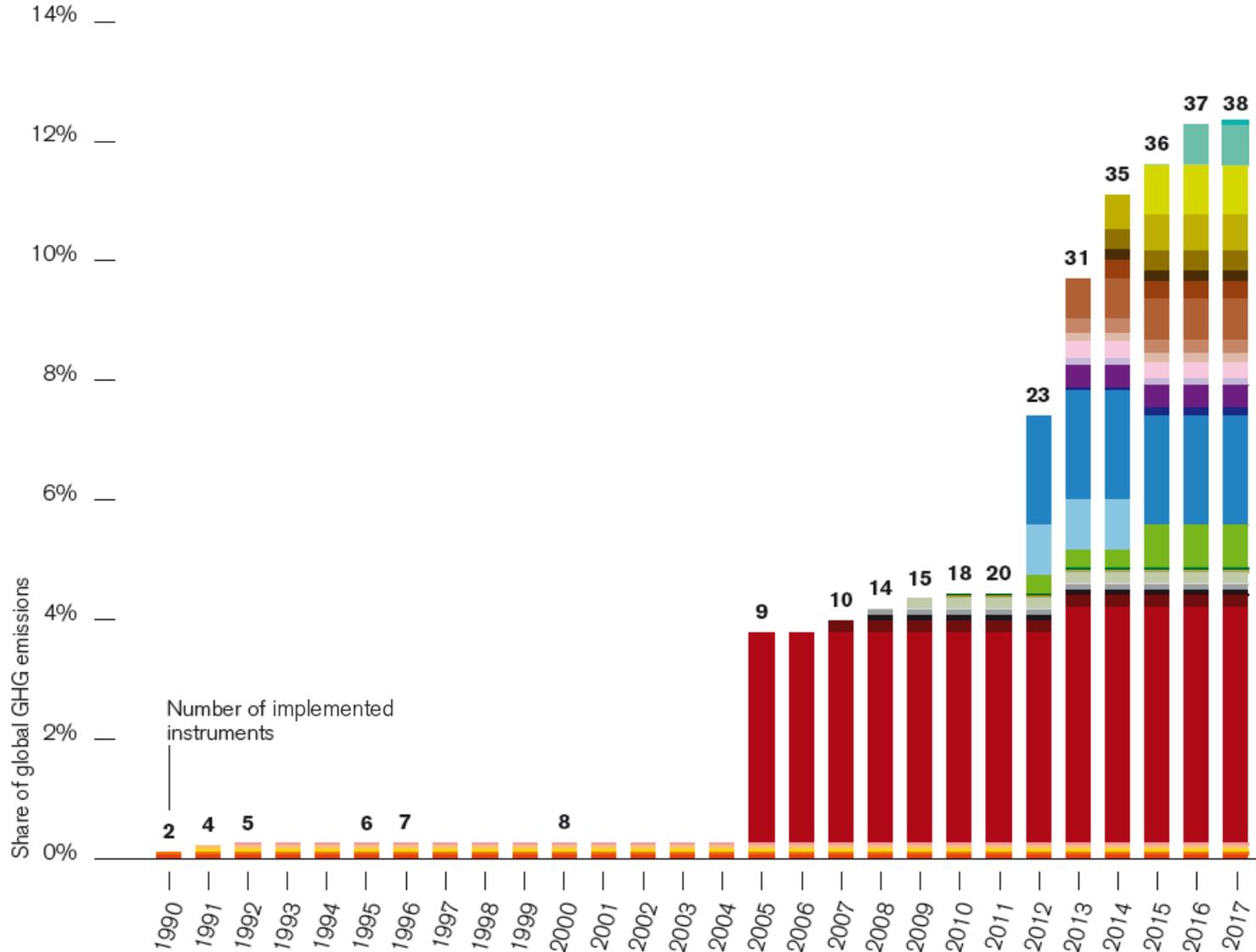
Geographic diversification



Expansion of national and sub-national jurisdictions putting a price on carbon



Growing global GHG emissions being priced

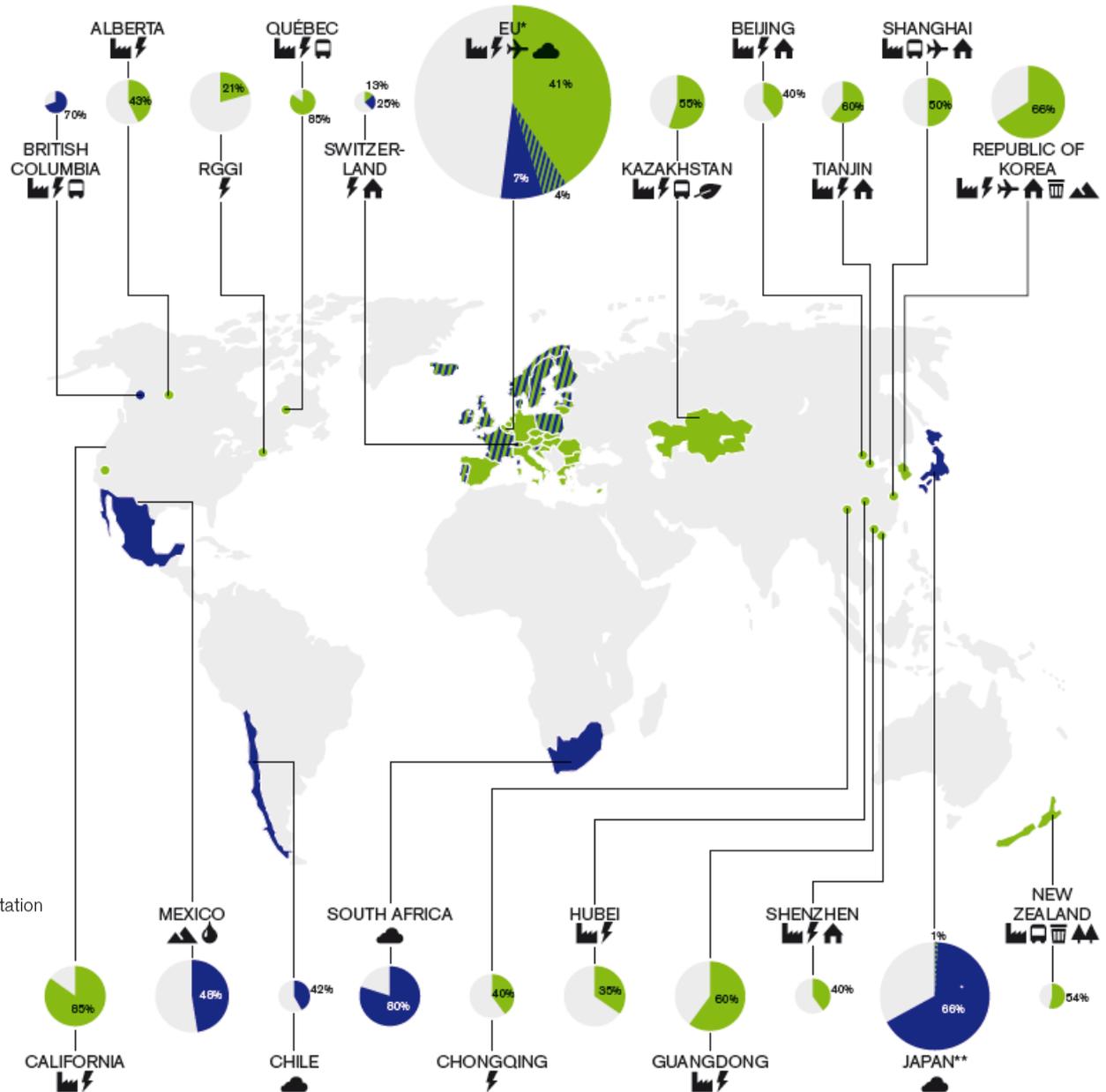


Both ETSs and carbon taxes are widely used

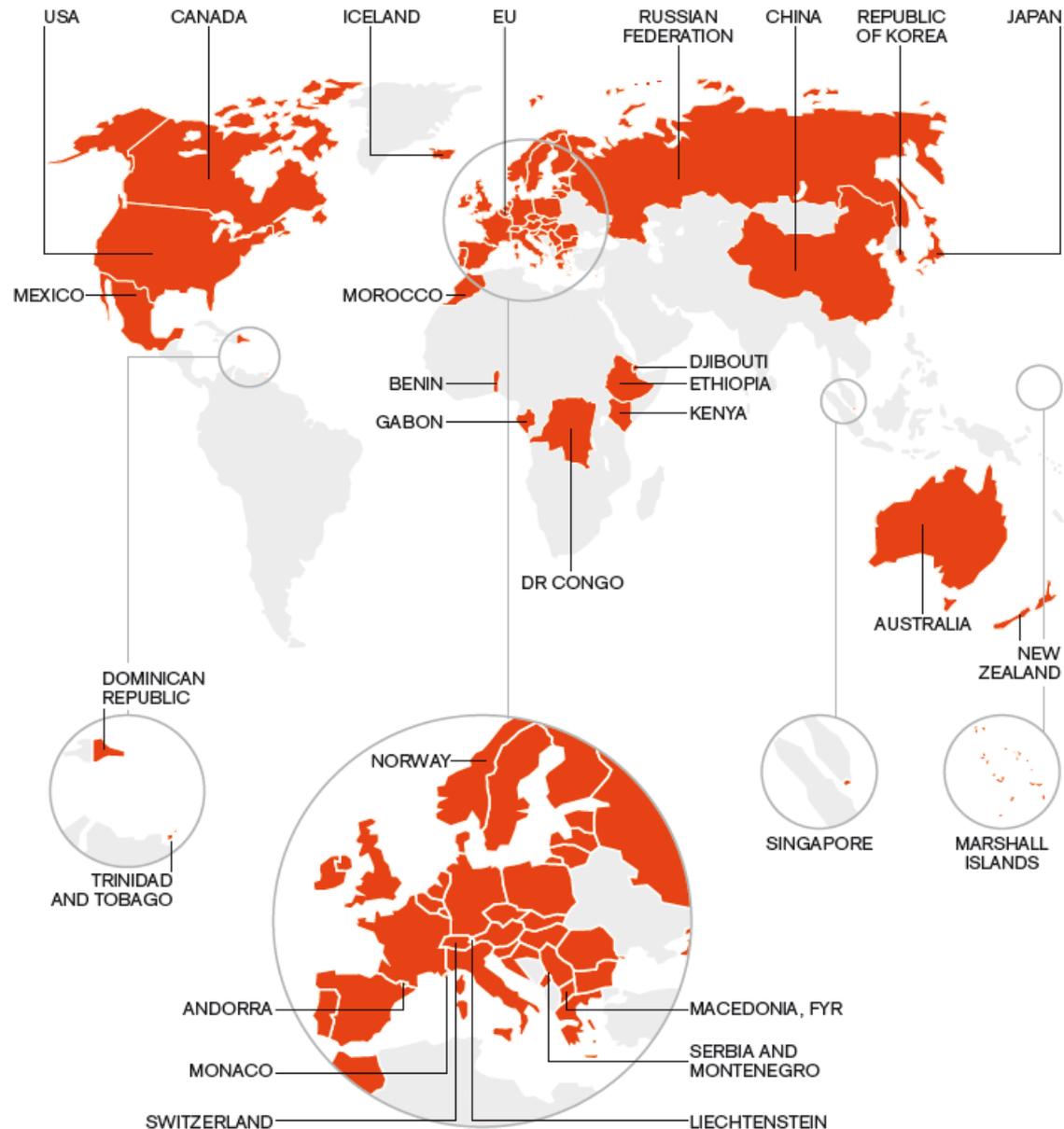
ETSs cover 8% and carbon taxes 4% of annual global GHG emissions

- Industry
- Power
- Transport
- Aviation
- Buildings
- Waste
- Forestry
- Agriculture
- All fossil fuels (tax only)
- Solid fossil fuels
- Liquid fossil fuels

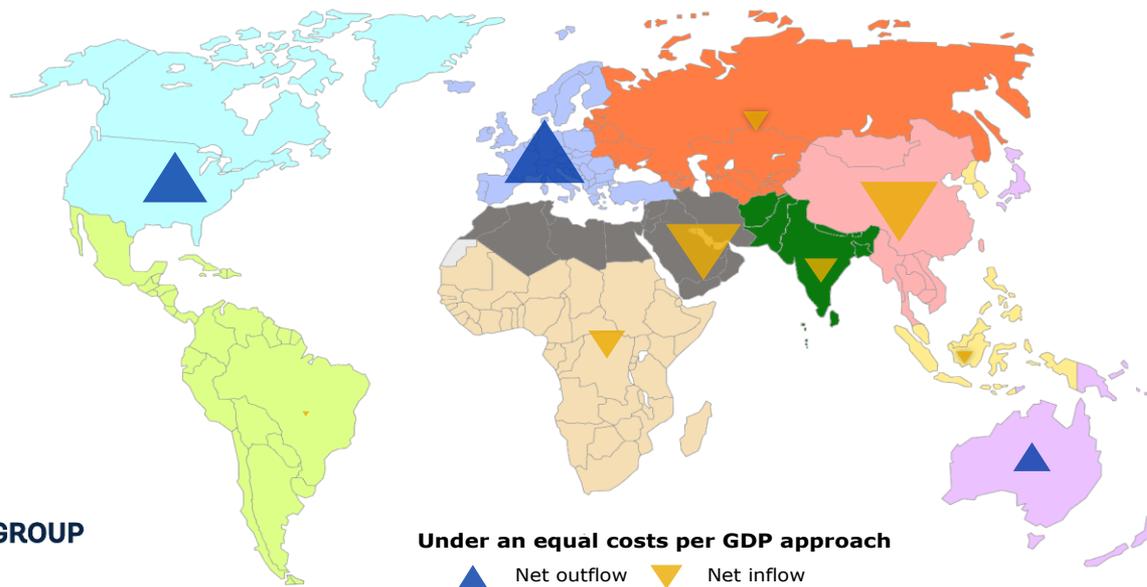
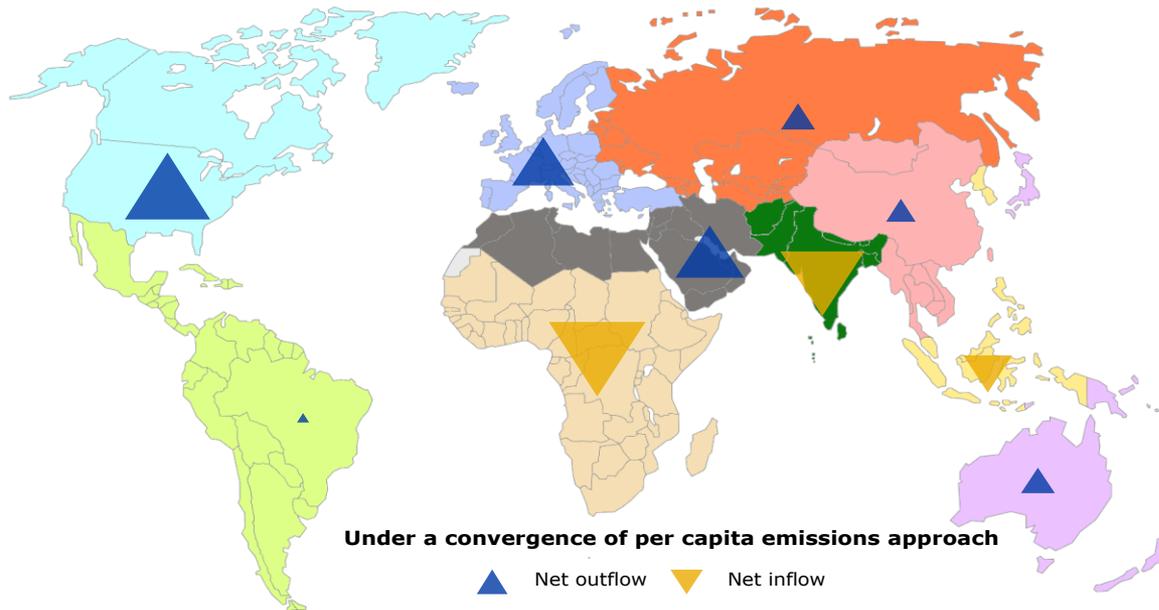
- ETS implemented or scheduled for implementation
- Carbon tax implemented or scheduled for implementation
- ETS and carbon tax implemented or scheduled
- 40% Estimated coverage



Carbon pricing mentioned in several INDCs



Magnitude and direction of financial transfers depend on different effort sharing distributions





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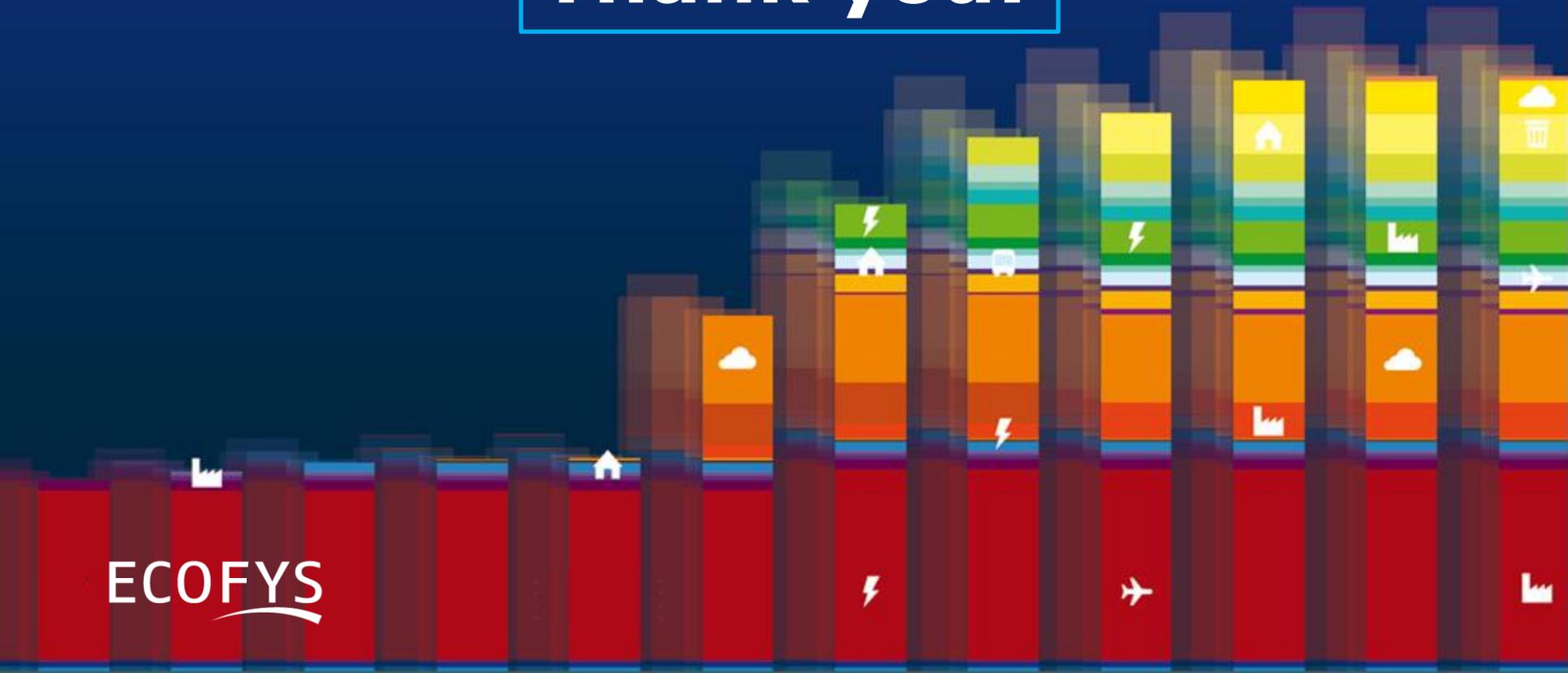
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Thank you!

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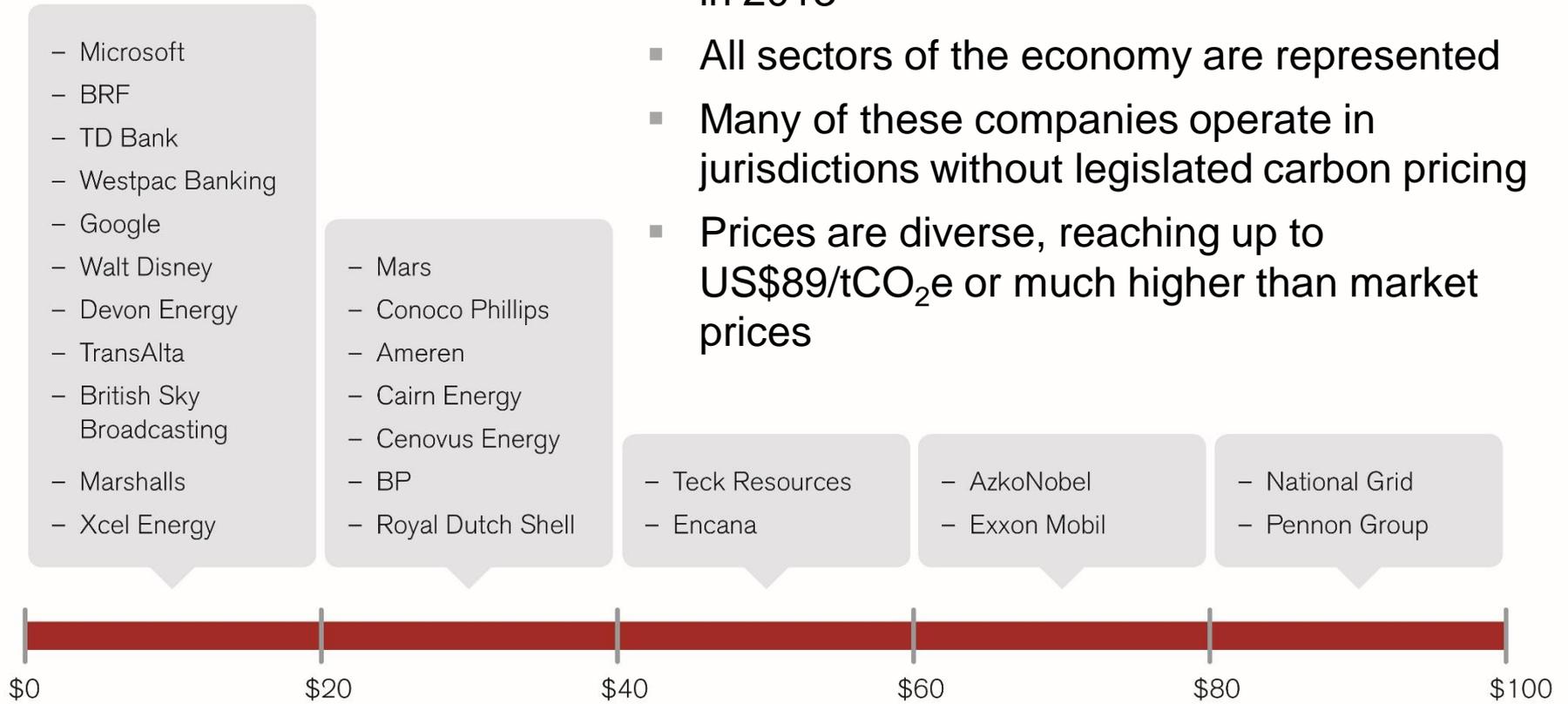


State and Trends of Carbon Pricing 2015 report

NATIONAL				SUB-NATIONAL				
Implemented		Scheduled		Implemented		Scheduled		
1	Denmark	ETS + tax	1	Chile	tax	1	California	ETS
2	Estonia	ETS + tax	2	South Africa	tax	2	Québec	WCI ETS
3	Finland	ETS + tax				3	British Columbia	tax
4	France	ETS + tax				4	Alberta	ETS
5	Ireland	ETS + tax				5	Connecticut	ETS
6	Latvia	ETS + tax				6	Delaware	ETS
7	Poland	ETS + tax				7	Maine	ETS
8	Portugal	ETS + tax				8	Maryland	ETS
9	Slovenia	ETS + tax				9	Massachusetts	RGGI ETS
10	Sweden	ETS + tax				10	New Hampshire	ETS
11	United Kingdom	ETS + tax				11	New York	ETS
12	Austria	ETS				12	Rhode Island	ETS
13	Belgium	ETS				13	Vermont	ETS
14	Bulgaria	ETS				14	Beijing	ETS
15	Croatia	ETS				15	Chongqing	ETS
16	Cyprus	EU-28 EU ETS				16	Guangdong	China ETS
17	Czech Republic	ETS				17	Hubei	ETS
18	Germany	ETS				18	Shanghai	ETS
19	Greece	ETS				19	Shenzhen	ETS
20	Hungary	ETS				20	Tianjin	ETS
21	Italy	ETS				21	Kyoto	ETS
22	Lithuania	ETS				22	Saitama	Japan ETS
23	Luxembourg	ETS				23	Tokyo	ETS
24	Malta	ETS						
25	Netherlands	ETS						
26	Romania	ETS						
27	Slovakia	ETS						
28	Spain	ETS						
29	Iceland	ETS + tax						
30	Norway	ETS + tax						
31	Liechtenstein	ETS						
32	Switzerland	ETS + tax						
33	Kazakhstan	ETS						
34	New Zealand	ETS						
35	Republic of Korea	ETS						
36	Japan	tax						
37	Mexico	tax						

Corporate carbon price engagement is spreading

- In 2014, 150 companies have reported using an internal carbon price, up from around 100 in 2013
- All sectors of the economy are represented
- Many of these companies operate in jurisdictions without legislated carbon pricing
- Prices are diverse, reaching up to US\$89/tCO₂e or much higher than market prices



International cooperation to remedy risk of carbon leakage and competitiveness impacts

- **Carbon pricing are intended to have efficient and fair impact on competitiveness between firms**
 - Favor innovative low-carbon firms
 - Facilitate exit or upgrade of the least efficient firms in emission-intensive industries
 - Thus, improve overall productivity of the economy
- **Carbon pricing remains fragmented around the world and unilateral action**
 - Can harm companies exposed to international competition relocating to jurisdictions with lower costs – carbon leakage
 - Favor inefficient, polluting firms instead of facilitating their exit
- **Carbon leakage has not significantly materialized so far, but risk is real under a scenario of high prices (stringent mitigation targets)**
- **Risk of leakage declines as more countries take action. International cooperation reduces concerns about competitiveness and eliminate risk of leakage**

International cooperation can reduce the overall cost of achieving climate stabilization goal by 10–70%

- **GHG emissions in all countries to be reduced under a 2⁰ scenario but...**
 - Unequal distribution of wealth and emission reduction potential so high-income countries might have exploited low-cost options while low-income countries might lack resources to do the same
 - Although all countries benefit from climate stabilization there is incentive for some countries to “free-ride”, avoiding hefty costs and benefiting from mitigation efforts of others
- **Cooperation results in substantial cost savings and reduces development asymmetries**
 - High-income countries can avoid costly domestic emission reductions and convert savings into financial transfers to reduce emissions in low-income countries
- **Economic instruments can mobilize resources as needed to achieve cost savings from cooperation in the form of financial transfers**
 - Climate finance and carbon pricing (ETS, tax, offsets)