

Climate Leadership Coalition

- 87 organisational and 45 personal members – companies, cities, associations, trade unions, universities and think tanks
- targets climate business network in EU



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- Chairman:** **Karl-Henrik Sundström**, former CEO of Stora Enso and a member of the board of Mölnlycke, Vestas and NXP and the Marcus Wallenberg Foundation
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Anders Wijkman, Co-President, Club of Rome, Chairman EU EIT Climate KIC
- (see the whole advisory board in the next slide)

CLC's main activities

Theme groups

- sharing experiences, creating ideas and developing initiatives

Theme areas

- agriculture and food, carbon footprint and handprint, climate policy, circular economy, citizen engagement, communication, construction, energy, financing, forestry, health, HR, ICT, retail, smart cities, transport



Developing and sharing best practises

- Implementing best practises, developing new methods

Key methods

- Strategy/reporting: Task Force on Climate Related Disclosures (TCFD)
- Lowering carbon footprint: Science Based Targets (SBT)
- Positive climate impact: Carbon handprint



Climate policy proposals for systemic solutions

- developing concepts for mainly for EU

European Union

- Ambitious and clear climate targets (2018)
- Systemic emissions and sinks management (2019)
- Holistic strategy for the land-use and bioeconomy (2021)



Events and webinars

- Events by themes
- Joint events with partners
- Spring and fall meetings



International networking

- Nordic collaboration
- EU business - climate networks
- UN, UNFCCC, World Bank, IEA, impact investors, etc.



CALL ON CARBON

For ramping up climate investments and carbon pricing

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- 1. GHG emissions gap is growing**
2. Investment level for climate mitigation is too low
3. GHG pricing is not wide and effective yet and fossil subsidies are too large
4. Join the Call on Carbon campaign and show your support to fix this

GHG emissions gap is growing

A. Current policies

- GHGs: 54 GtCO₂e -> 59 GtCO₂e by 2030

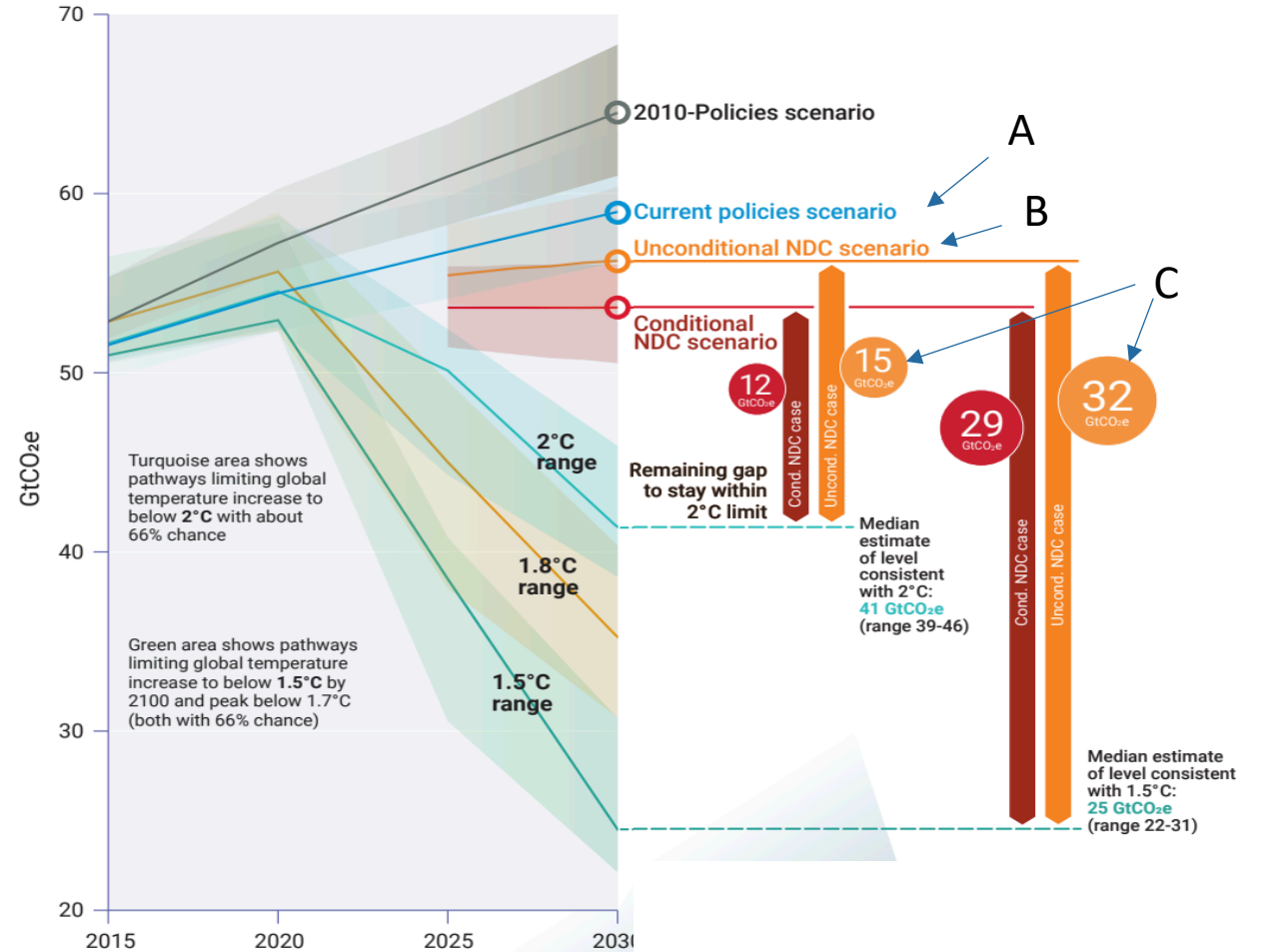
B. With unconditional NDC's

- 56 GtCO₂e by 2030

C. Gaps by 2030

- 15 GtCO₂e to below 2°C (-28% from the current)
- 32 GtCO₂e to 1.5°C (-59% from the current)

*It is estimated that **the level of ambition needs to be roughly tripled to align with the 2°C limit and must be increased around fivefold to align with the 1.5°C limit.***



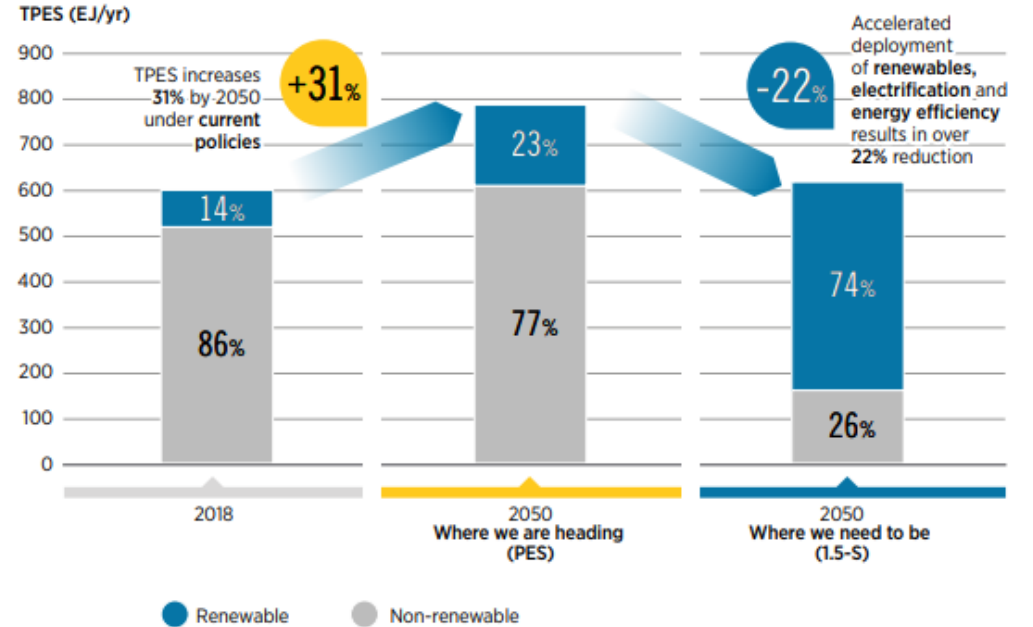
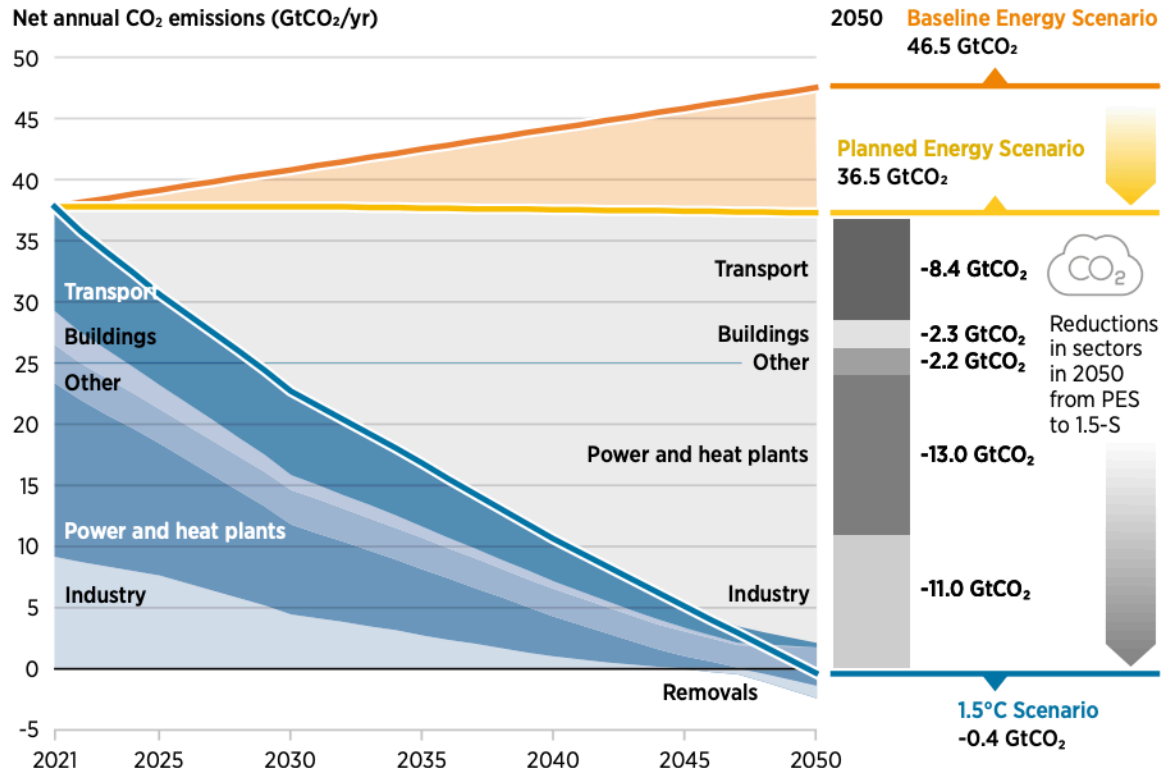
<https://www.unep.org/emissions-gap-report-2020>

<https://public.wmo.int/en/media/press-release/landmark-united-science-report-informs-climate-action-summit>

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- 2. Investment level for climate mitigation is too low**
3. GHG pricing is not wide and effective yet and fossil subsidies are too large
4. Join the Call on Carbon campaign and show your support to fix this

There is a large investment gap – that is also a gigantic opportunity



<https://www.irena.org/publications/2021/March/World-Energy-Transitions-Outlook>

Net zero targets mean that in about 30-40 years we need to replace emitting solutions in energy, industry, buildings and transport by non-emitting ones and develop solutions for carbon sinks and sequestration. Electricity generation must expand three-fold by 2050 and the production green hydrogen by over 300-fold from today.

The current pace of change is too slow...

World consumption

Exajoules

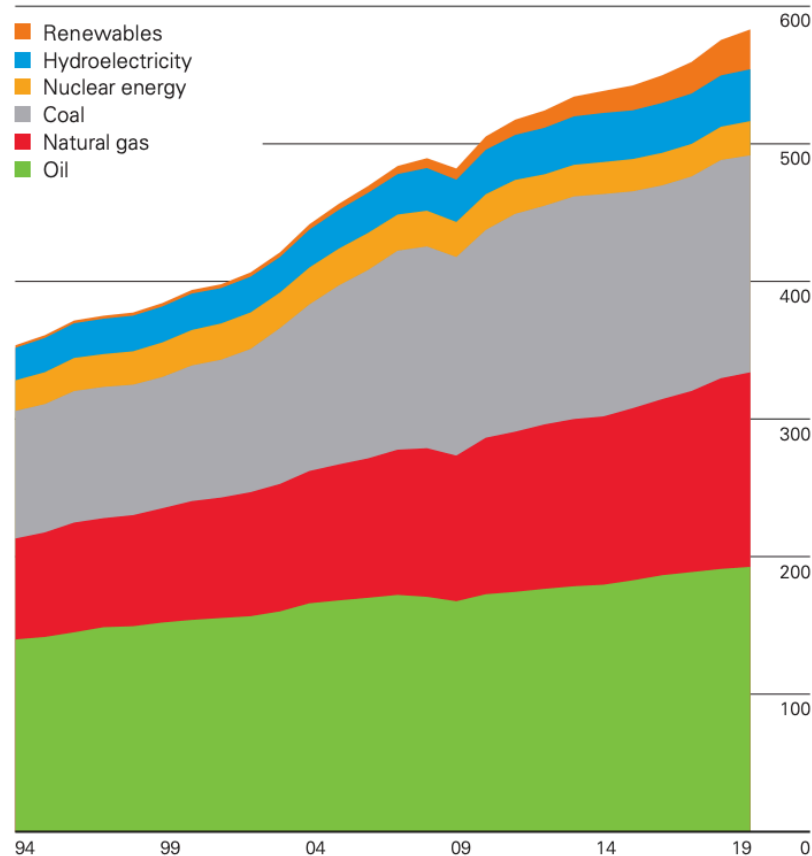


Table 1: Fuel shares of primary energy and contributions to growth in 2019

Energy source	Consumption (exajoules)	Annual change (exajoules)	Share of primary energy	Percentage point change in share from 2018
Oil	193.0	1.6	33.1%	-0.2%
Gas	141.5	2.8	24.2%	0.2%
Coal	157.9	-0.9	27.0%	-0.5%
Renewables*	29.0	3.2	5.0%	0.5%
Hydro	37.6	0.3	6.4%	-0.0%
Nuclear	24.9	0.8	4.3%	0.1%
Total	583.9	7.7		

*Renewable power (excluding hydro) plus biofuels

... but in 2019 there were also good news - renewables contributed 41% and all non-emitting sources 56% of the increased energy demand.

BP: Statistical Review of World Energy 2020 | 69th edition

Many other sectors have significant investment needs

- [Renewable Power](#)
- [Nuclear Power](#)
- [Energy Storage](#)
- [Hydrogen](#)
- [Chemicals](#)
- [Iron and Steel](#)
- [Cement](#)
- [Electric Vehicles](#)
- [Rail](#)
- [Fuel Consumption of Cars and Vans](#)
- [Trucks and Buses](#)
- [Building Envelopes](#)
- [Heating](#)
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- [Cooling](#)
- [Natural Gas-Fired Power](#)
- [Coal-Fired Power](#)
- [CCUS in Power](#)
- [Smart Grids](#)
- [Demand Response](#)
- [Direct Air Capture](#)
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- [Aluminium](#)
- [CCUS in Industry and Transformation](#)
- [Transport Biofuels](#)
- [Aviation](#)
- [International Shipping](#)
- [Lighting](#)
- [Appliances and Equipment](#)
- [Data Centres and Data Transmission Networks](#)

Clean hydrogen

- Hydrogen production now 14 EJ / y - < 1% green -> by 2050 demand 74 EJ - two-thirds of it green
- > 228 large-scale projects announced - total investments may reach more than \$300 billion by 2030

Iron and steel

- The direct CO2 intensity of crude steel has been relatively constant (within a 20% range)
- For IEA SDS scenario, the CO2 intensity of crude steel needs to fall an average of 2.5% annually by 2030
- -> incremental improvements on the whole fleet or capacity replacements of 2.5% to clean hydrogen

Cement

- The direct CO2 intensity of cement production increased 0.5% per year during 2014-18
- To get on track with the IEA SDS scenario, a 0.8% annual decline is necessary to 2030
- -> reducing the clinker-to-cement ratio and deploying innovative technologies including CCUS

CCUS

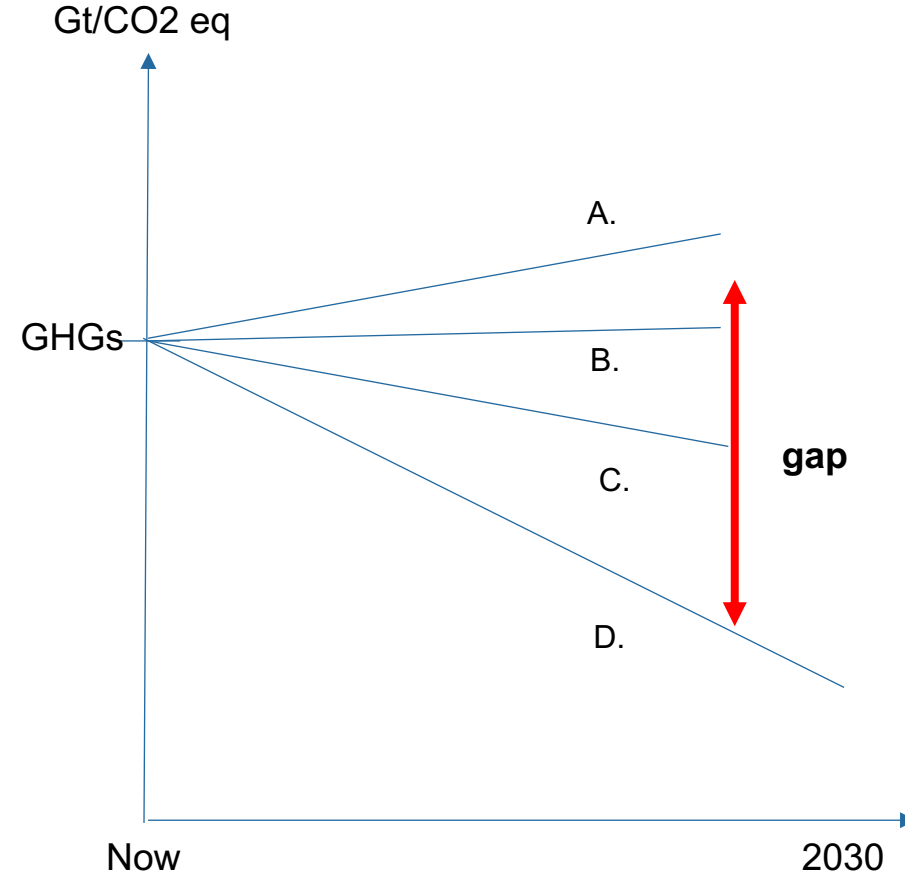
- 21 plants w CCUS, 36 MtCO2 /y
- IEA 2030 SDS target 760 MtCO2 per year

<https://www.iea.org/topics/tracking-clean-energy-progress>

<https://hydrogencouncil.com/en/hydrogen-deployment-accelerating-with-more-than-300-billion-in-project-pipeline/>

We need to implement new economic growth via non-emitting solutions and replace existing emitting assets

- A. Implement demand growth by climate friendly solutions
- B. If all demand growth investments would be CO2-free then the emissions would stay as today
- C. Implement capacity replacements with CO2-free solutions...
- D. ... and do even more than that
- E. *To reach net zero by 2050, CO2 emissions must decline 3.5% year-on-year, on average (IRENA)*



Today, we implement only part of the growth by climate friendly solutions. If we do not have a step change for this, we will not get the investments on time. We are only one investment cycle away from 2050.

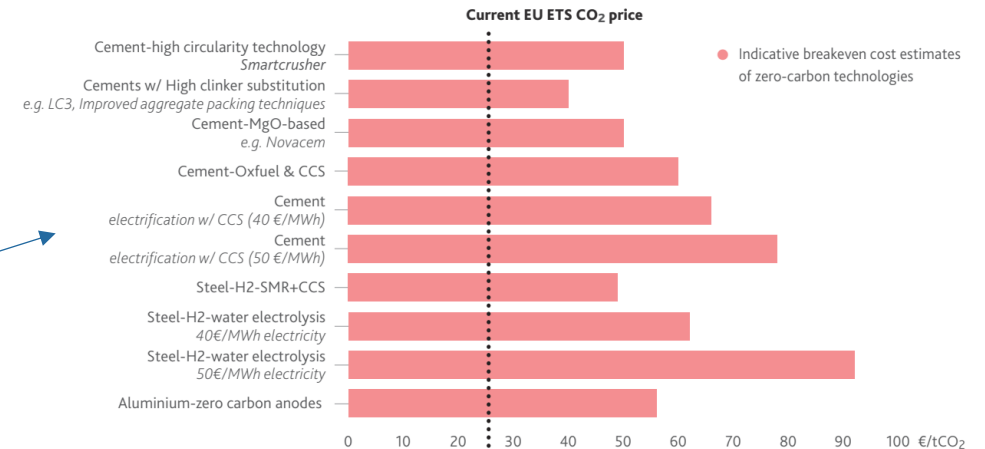
Carbon price and markets are vital for the investors

When considering new investments, the decision makers will ask:

- Will the new products be certified? Will there be sufficient demand and markets for the new products?
- Will the new investment lead to a profitable business?
- Is there adequate support to develop new products or industrial processes on time?

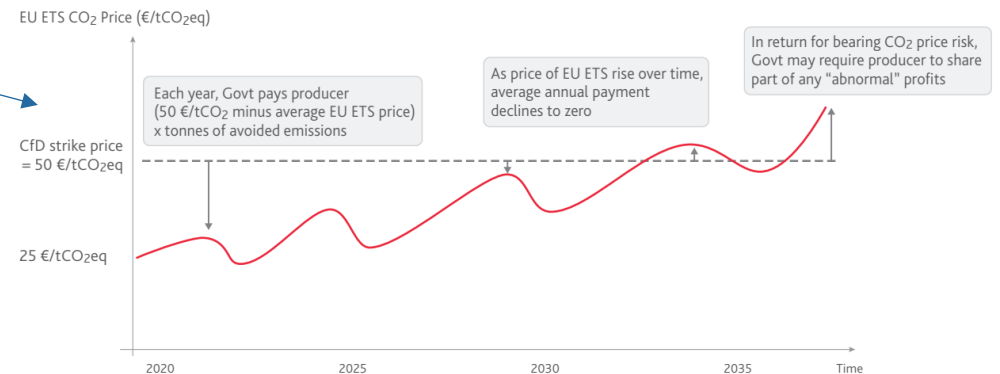
Predictable, effective carbon price is needed for the profitability and carbon markets for the cost efficiency. In addition, demand-based policies and Carbon Contracts for Differences – type policies will help in getting pioneer solutions commercialized.

FIGURE 1. Breakeven cost estimates of very low-carbon cement, primary steel and primary aluminium technologies



NB. This graphic is simply illustrative and not intended to be an exhaustive list of technologies, nor to reflect precise breakeven cost conditions at all specific site locations.

Source: IDDRI, based on data from Vogl et al (2018), Scrivener et al (2018), Material Economics (2019), IEA, Metalbulletin, IDDRI.



Source: O. Sartor, IDDRI.

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Carbon pricing is not wide and effective yet and fossil subsidies are too large

- **Only a fraction of green-house gas emissions has an effective carbon price**
 - about 22% of global GHG emissions are covered by a carbon price
 - less than 5% of GHG emissions the price is on the adequate level
 - with about half < US\$10/tCO₂e, and the global average US\$2/tCO₂
- **Fossil subsidies and damages much bigger than the money we collect with the carbon price**
 - governments raised more than US\$45 billion from carbon pricing in 2019
 - fossil subsidies were more than ten times higher US\$ 478 billion
 - the indirect costs of climate change are around US\$5 trillion per year
- **Carbon price development slow**
 - during the last five years, the coverage of carbon pricing has increased by less than two percentage points per annum

To attract the needed investments, we need to have a step change in this!

<https://openknowledge.worldbank.org/bitstream/handle/10986/33809/9781464815867.pdf?sequence=4>

<https://www.imf.org/en/Publications/WP/Issues/2019/05/02/Global-Fossil-Fuel-Subsidies-Remain-Large-An-Update-Based-on-Country-Level-Estimates-46509>

<https://www.oecd.org/environment/governments-should-use-covid-19-recovery-efforts-as-an-opportunity-to-phase-out-support-for-fossil-fuels-say-oecd-and-iea.htm>

<https://openknowledge.worldbank.org/bitstream/handle/10986/25160/9781464810015.pdf?sequence=7&isAllowed=y>

Actions and political support for carbon price and markets is growing



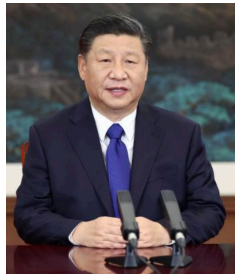
“We want to work with all those who agree that we must put a price on carbon. We are ready for more ambitious commitments with like-minded countries.”

President Ursula von der Leyen at the Climate Ambition Summit, 12 Dec 2020

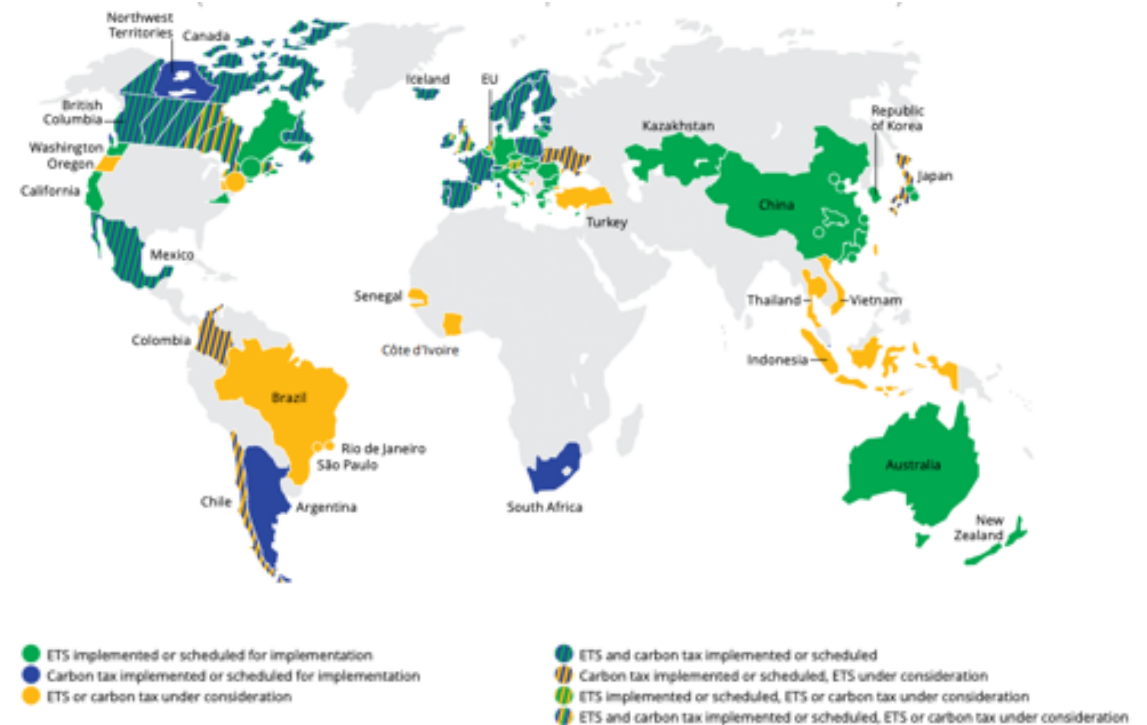


“It would help a great deal if we had a carbon market,”

Climate Envoy John Kerry, Transatlantic Energy Meet, 16 Mar 2021



China’s ETS started in February 2021.



Countries using or considering carbon price

https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_20_2403

<https://www.bloomberg.com/news/articles/2021-03-16/german-ministers-urge-more-climate-cooperation-energy-update>

<https://www.euractiv.com/section/emissions-trading-scheme/news/china-to-launch-carbon-emissions-trading-scheme-next-month/>

<https://openknowledge.worldbank.org/bitstream/handle/10986/33809/9781464815867.pdf?sequence=4>

Businesses have called and supported carbon pricing and market mechanisms before and after the Paris COP

- **20 business focused organisations and associations (2015)**
- **Orgalim (2018)**
- **European Round Table for Industry (ERT) (2018)**
- **CERES with more than 75 businesses and trade associations**
- combined market valuation of nearly \$2.5 trillion (2019)
- **International Chamber of Commerce (ICC)**
- **The Business Roundtable**, representing over 200 major U.S. corporations, U.S. (2020)
- **U.S. Chamber of Commerce (2021)**
- **Institute of International Finance (IIF)** and top finance trade groups - banks, insurers and asset managers (2021)



https://www.businessseurope.eu/sites/buseur/files/media/public_letters/iaco/2015-10-20_joint-carbon_markets_at_cop_21.pdf

https://orgalim.eu/sites/default/files/attachment/Orgalime%20comments%202015%20LTS_Energy%20&%20Environment%20Councils_2018_12_17_final.pdf

<https://ert.eu/documents/international-cooperation-to-deliver-on-the-paris-goals/>

<https://www.ceres.org/news-center/press-releases/LEAD-on-carbon-pricing>

<https://iccwbo.org/media-wall/news-speeches/icc-endorses-new-report-presenting-case-for-carbon-pricing-to-address-industrial-competitiveness/>

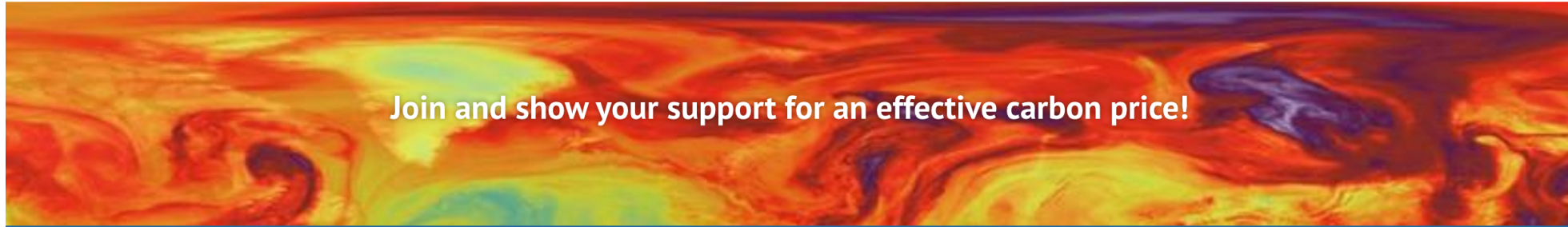
<https://www.reuters.com/article/usa-business-carbonpricing-idUSKBN2672W4>

<https://www.uschamber.com/series/above-the-fold/update-the-chambers-approach-climate>

<https://www.reuters.com/article/us-climate-change-carbonpricing-banks-idUSKBN2A11LB>

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We, the undersigned, call on governments to:

- back their net zero targets with effective, robust, reliable and fit-for-purpose carbon pricing instruments, consistent with the Paris Agreement, to facilitate a cost-efficient investment path to reach net zero emissions;
- align their carbon pricing instruments where appropriate to create a stable and predictable investment environment; and
- finalise the rules for international market mechanisms under Article 6 of the Paris Agreement to support cost-effective mitigation efforts, create a level playing field and minimise carbon leakage while enabling greater ambition



Join

42

Companies

11

Business associations & networks

10

Others

4

Universities

Signatories

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CEO
Ensto

Antti Vasara
CEO
VTT

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Chair of the Board of Directors
SEB

Jari Kuusisto
Rector
University of Vaasa

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Lassila & Tikanoja

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KLP

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Timeline of the key actions – *to be planned in more detail in March*

15 February	Open the www-site on 15 February with first signatories and quotes
6 April (TBD)	Publish the campaign for the media (prior to the US Climate Summit on 22 April)
X June	High-level round table associated to G7 Summit in UK on 11-13 June
X October	A letter for key leaders within COP parties indicating wide support from the business
1-12 November	Organize a side event on this in the Glasgow COP26
Feb-Oct	Events / webinars utilizing other relevant events and Portugal and Slovenia EU presidency Get more signatories

Opportunities for webinars with interesting parties

- Benchmarking and experiences of the performance of climate policies
 - Cap-and-trade, taxes, feed-in-tariffs, standards / abilities to secure emission reductions, attract investments, proceed cost efficiently
- How to use carbon price for attracting and scaling up green investments
- How carbon price could support innovation development and commercialization of new solutions
- Carbon price proceeds in supporting fair transformation
- Carbon pricing solutions to help in creating a level playing field
- The use carbon price to support and develop nature-based climate solutions
- Systemic transition from fossil subsidies towards carbon pricing
- International integration of carbon pricing solutions

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