

Agora
Energiewende



The global race to meet Paris Agreement targets

Launch event: Deep decarbonization of Indonesia's energy system: A pathway to zero emissions by 2050

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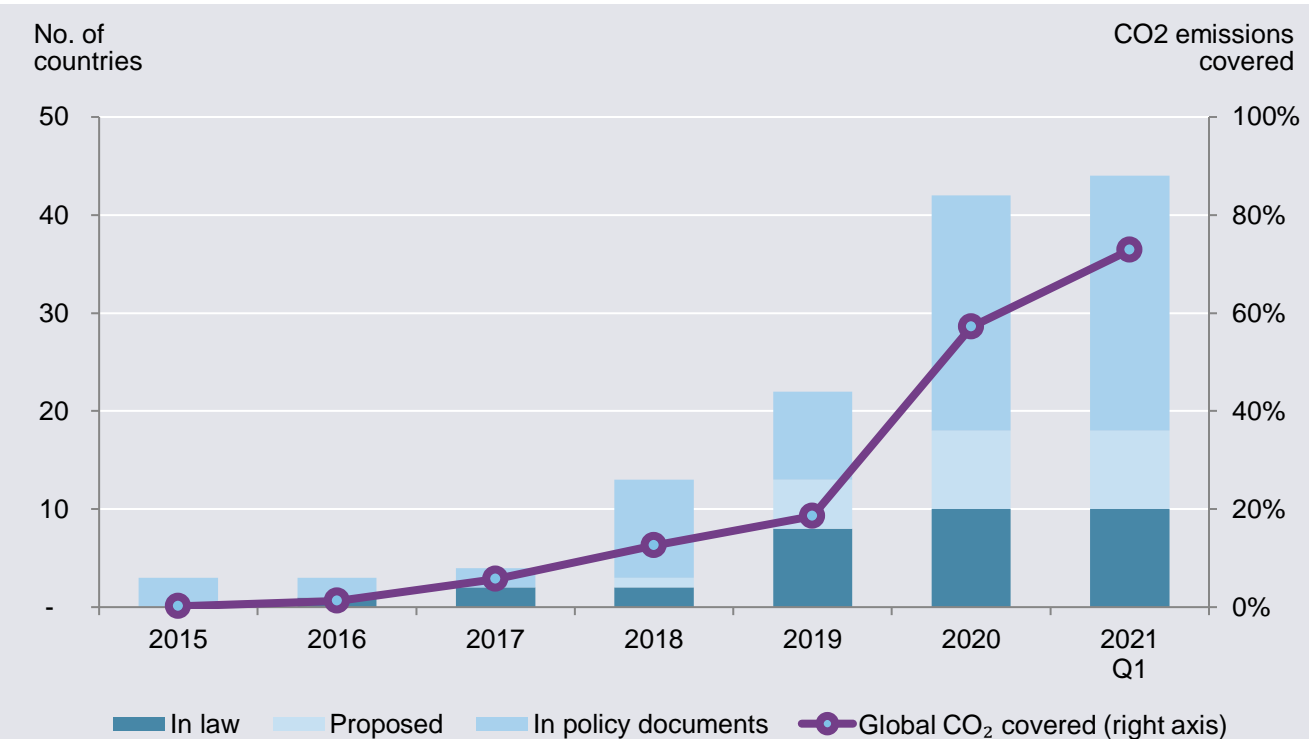
Agora Energy – Who we are

- **Think Tank and Policy Lab**
- Round about **100 energy transition experts**
- **Independent** and non-partisan with diverse financing structure
- **Our Vision** - A prosperous and **carbon neutral global economy** by 2050
- **Policy advise** to deliver **clean power, heat and industries** – in Germany, Europe and around the Globe
- **Headquarter in Berlin**, with offices in Brussels, Beijing and Bangkok



Ahead of COP 26, the global trends towards net zero put Paris 1.5 degrees target within striking distance

Carbon net zero pledges and share of global CO2 emissions covered



IEA (2021)

- Number of carbon net zero pledges increasing rapidly globally
- These include the EU, US, Japan, Korea, Canada, China (by 2060) and many others
- Countries that have set pledges represent **more than 70% of global GDP and CO₂ emissions**
- Major municipalities, sub-national entities and more than 110 global companies have set carbon neutrality targets for themselves, partly well before 2050
- G7 on 21 May declared end to international financing of new coal

Last week, the IEA published a detail pathway to a global net zero energy system

Main message: Possible, but action needed now

Key results:

- **Renewable energy** to account for **two-thirds of total energy use by 2050**
- Fatih Birol: “**wind and solar** are the new kings of the power market”
- “**Carbon Capture and storage** will be part of the game, but development **not as promising** as hoped for”
- Energy transition will **increase GDP by 0.4% annually, create 30 million jobs** (IMF)
- Share of **spendings on energy** for households in emerging economies will **remain at similar level** to today

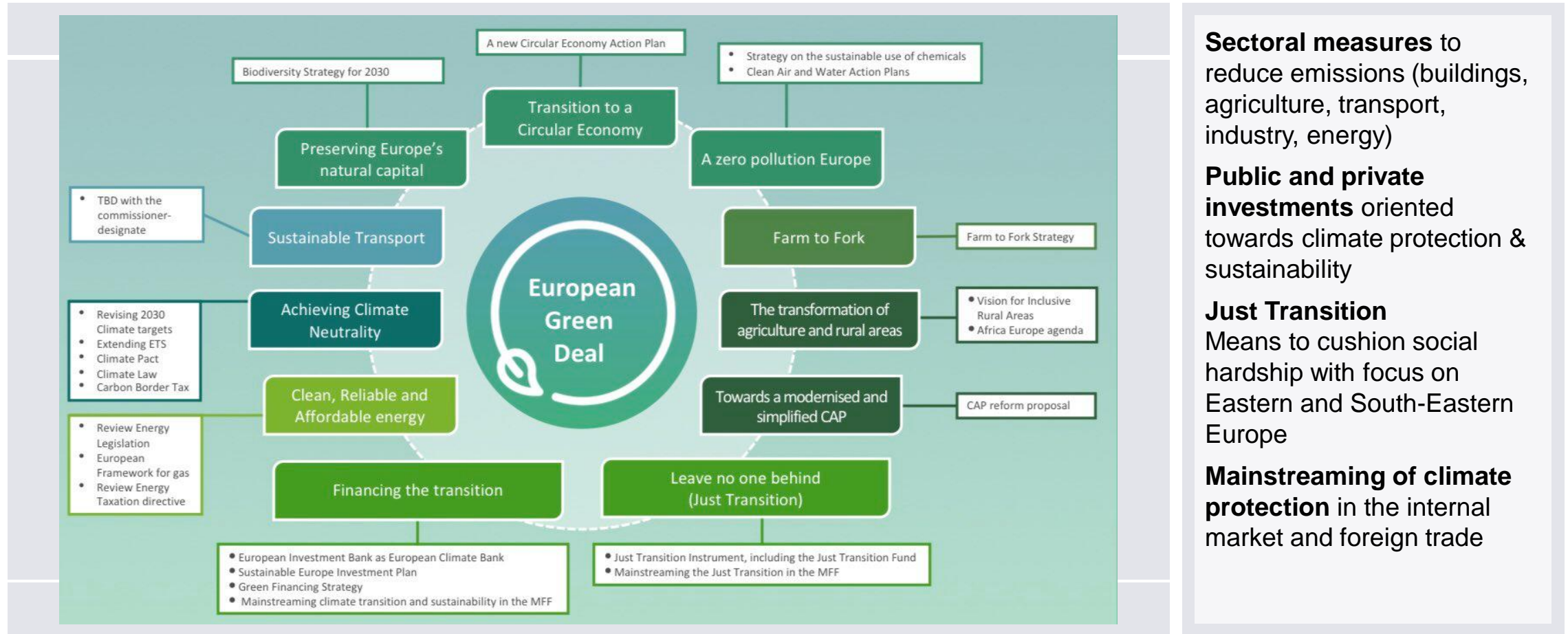
Milestones:

- **Now:** Globally, **no new investment in fossil infrastructure** needed (no new gas and oil fields exploration, no opening of new coal mines) – it will risk ending up as stranded assets
- **2035: no more sale of combustion engine cars**
- **2040: global electricity generation emissions at zero**

Challenges:

- Need **near term policies** and measures **to back the pledges**
- **Mobilising investment** from currently 2 trillion USD to 5 trillion USD annually
- **Just** transition
- **Coordinated** at all governmental levels (nationally and internationally) - importance of China, India and Indonesia named specifically

With its European Green Deal announced 2019, the EU puts climate neutrality 2050 center-stage and links it with economic growth and innovation



Sectoral measures to reduce emissions (buildings, agriculture, transport, industry, energy)

Public and private investments oriented towards climate protection & sustainability

Just Transition
Means to cushion social hardship with focus on Eastern and South-Eastern Europe

Mainstreaming of climate protection in the internal market and foreign trade

Meanwhile, Germany has raised ambition to net zero climate emissions 2045 after a spectacular decision by the Constitutional Court last month



Germany raises ambition to net zero by 2045 after landmark court ruling

Published on 05/05/2021, 4:06pm

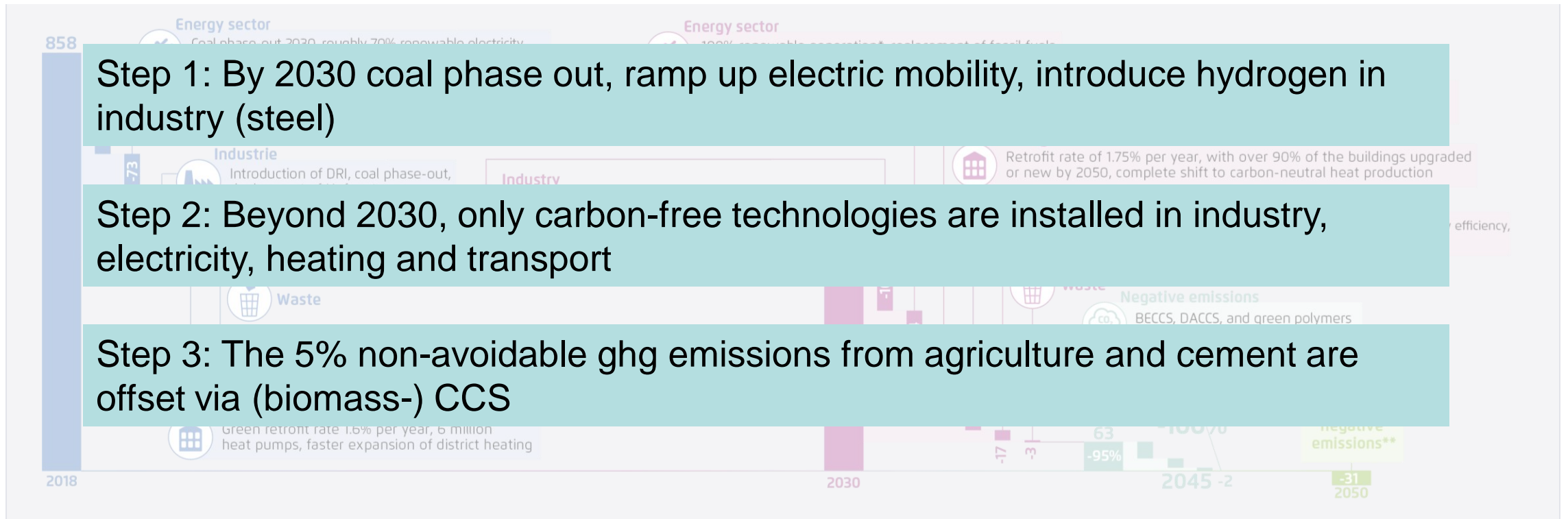
A surprise plan to strengthen Germany's emission targets reignites debate on quitting coal and pricing carbon ahead of September's election



- **Constitutional Court ruled in favor of youth climate movement**, which had filed a case against the German government and its climate law, arguing that lack of action now would limit the freedom of future generations in designing their way of living
- **Government**, ahead of fall parliamentary elections, has **increased ambition**
 - lifting **emissions reductions** target from -55% to **-65% by 2030**,
 - net zero by 2045 (baseline 1990)
- Germany's new emissions reduction pathway will be similar to the one Agora proposed in the "Climate Neutral Germany by 2045" study






How Germany can become climate neutral in 3 steps: (1) reduction of ghg emissions by 65% until 2030, (2) -95% until 2045, and (3) CCS for remaining emissions

Measures in the climate neutrality 2050 scenario (KN2050) (GHG emissions in mio. t CO₂-eq.)



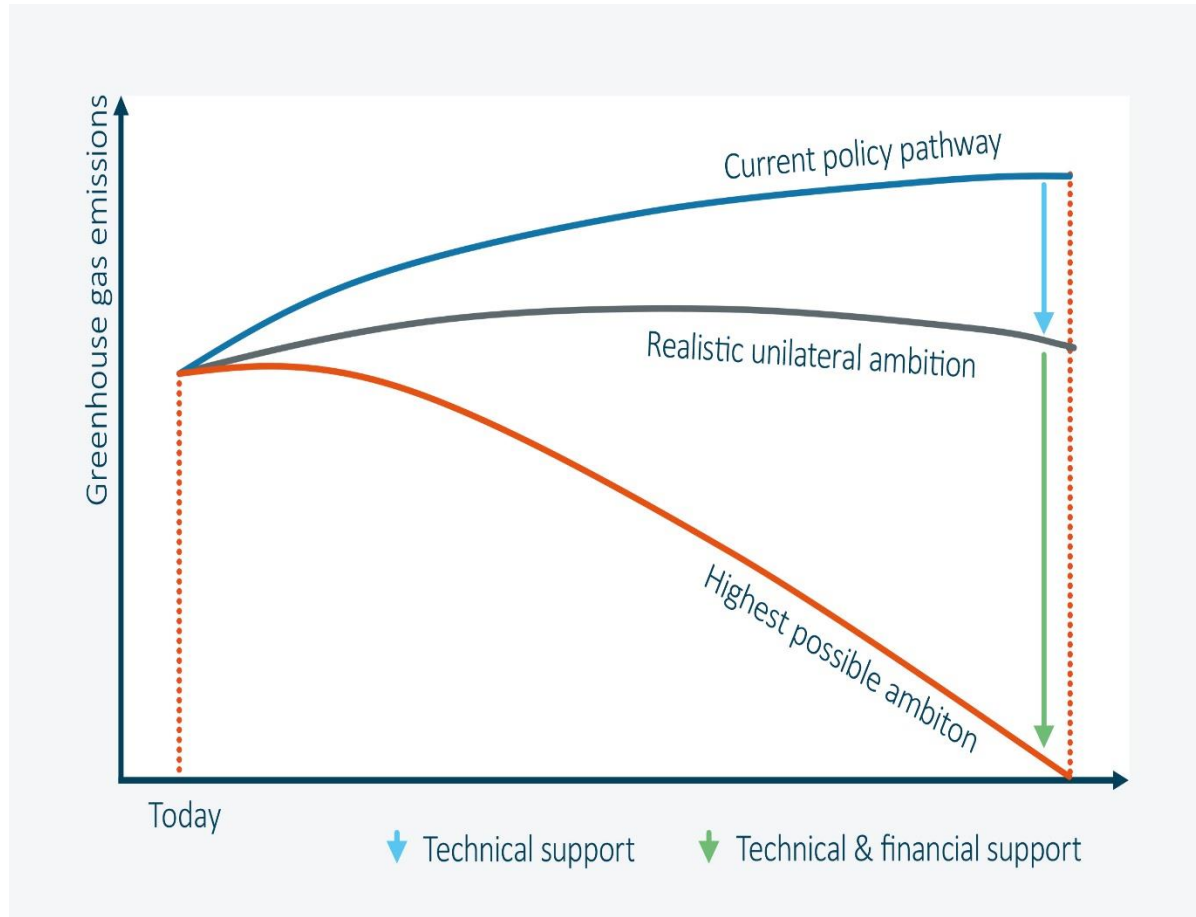
Prognos, Öko-Institut, Wuppertal-Institut (2021)

Five key strategies to decarbonise power, industry, transport and buildings – with differentiated time frames in industrialized nations and emerging economies

	Boost renewables
	Phase out fossil fuels
	Ramp up energy efficiency
	Electrify transport, heat and industry
	Establish clean hydrogen

Industrialized nations	Emerging economies
45-60% by 2030	25% by 2030
Coal phase out by 2030/2035	Coal peak by 2025 / 2030; phase out by 2040/2045
Essential to decouple energy use from economic development	
Gradual electrification of heat, transport and industry in 2020ies, massive increase from 2030ies onwards	
Lead markets to bring down costs, increase after 2030ies	Mainly after 2030ies to eliminate residual em. (heat, aviation, shipping)

Unprecedented level of international cooperation with firm commitments by all countries needed for raising global ambition



- 2050 pledges by industrial countries are only consistent with Paris pathways if balanced by massive **finance and technology transfers to emerging economies**.
- Emerging economies will need to identify their current realistic ambitions in order to **define the nature of the support needed to lift ambitions** to the maximum technical possibility.
- Financing for **fossil infrastructure** and trade of **fossil-based products** will become **challenging**
- **Particular attention** will need to be provided to **countries**, regions and employees **heavily reliant on fossil fuel industry** today.
- The \$100 billion per year in climate finance towards emerging economies reaffirmed in Paris, will continue to 2025, when it will become the floor for a new goal.

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Thank you for your attention!

Questions or Comments? Feel free to contact me:

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