

International Conference on Green Hydrogen - ICGH 2024

12 September 2024

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Internalization of costs

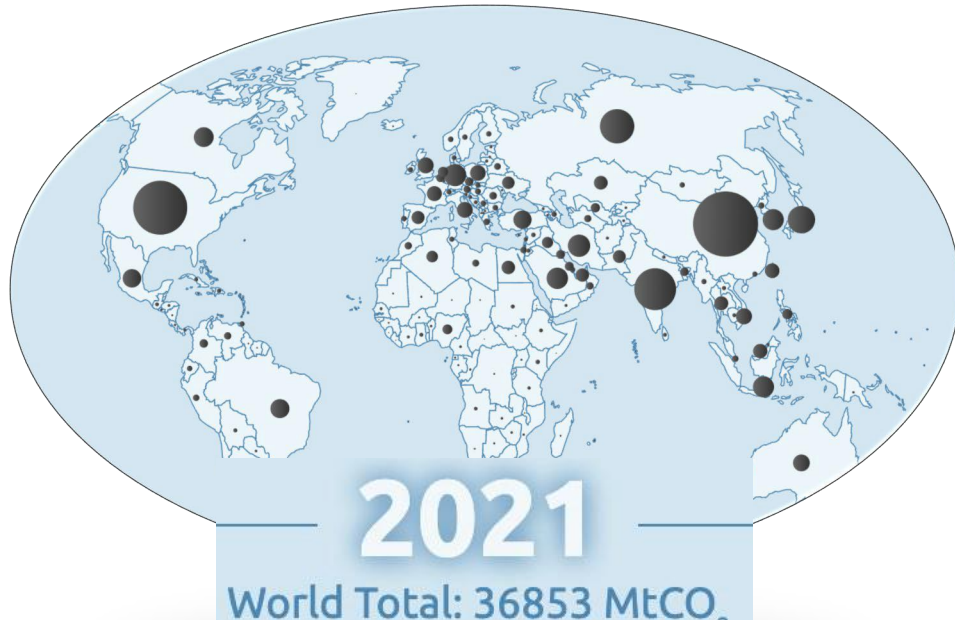
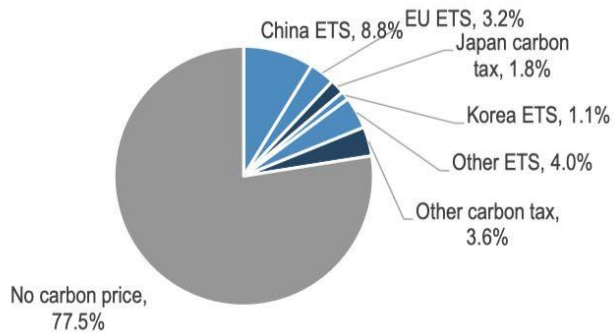


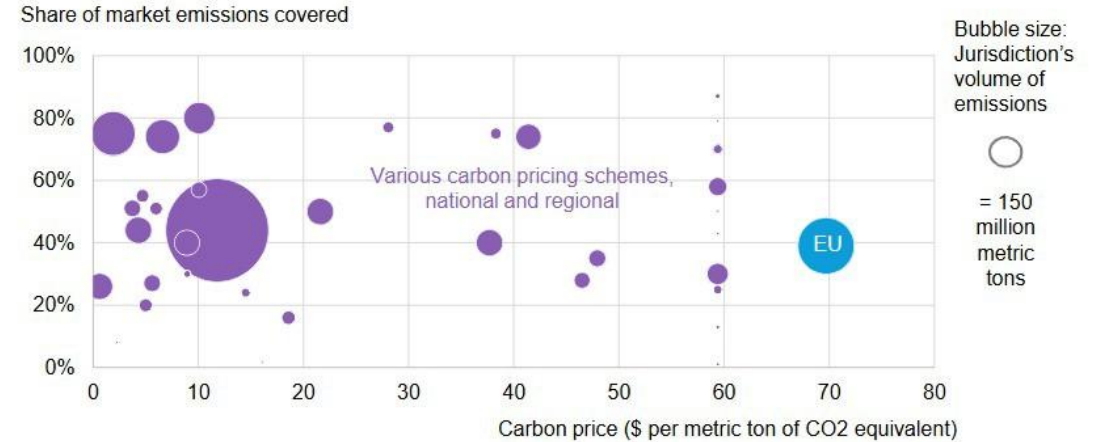
Figure 61: Only 23% of global emissions are covered by various carbon taxes/trading schemes



Source: The World Bank, Monash/C2Zero Real Carbon Price Index and J.P. Morgan Global Energy Strategy.

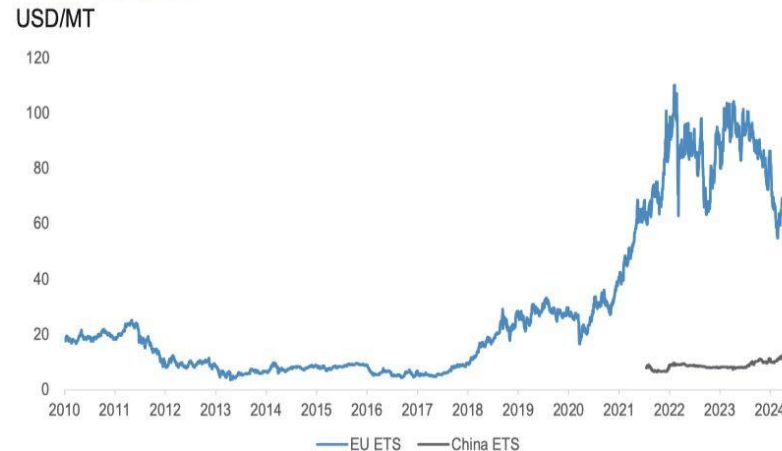
EU carbon pricing is comparatively high

Carbon-pricing programs by price and share of emissions covered



Source: BloombergNEF, ICE. Note: Figure includes operational international and national carbon taxes and markets, including state-level measures in China, Canada and the US. Where available, tax rates are for current year. EU Emission Trading System prices are average over six months to May 24, 2024.

Figure 62: European carbon credits trade at a ~5x premium over Chinese credits



Source: Bloomberg Finance L.P. and J.P. Morgan Global Energy Strategy.

“Make fossil fuels and CO2 emissions more expensive, at home and abroad”

The task: Net-zero by 2050



Fossil energy needs



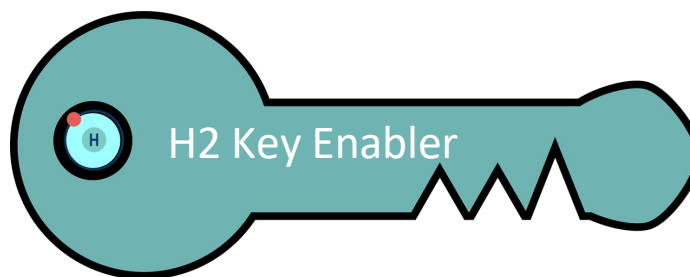
Renewable energy needs

Decarbonisation of molecules

CO2 reduction via various technologies

Flexibility of electrons

Storage/cheap transport



Question: How to measure – enhance investment opportunities

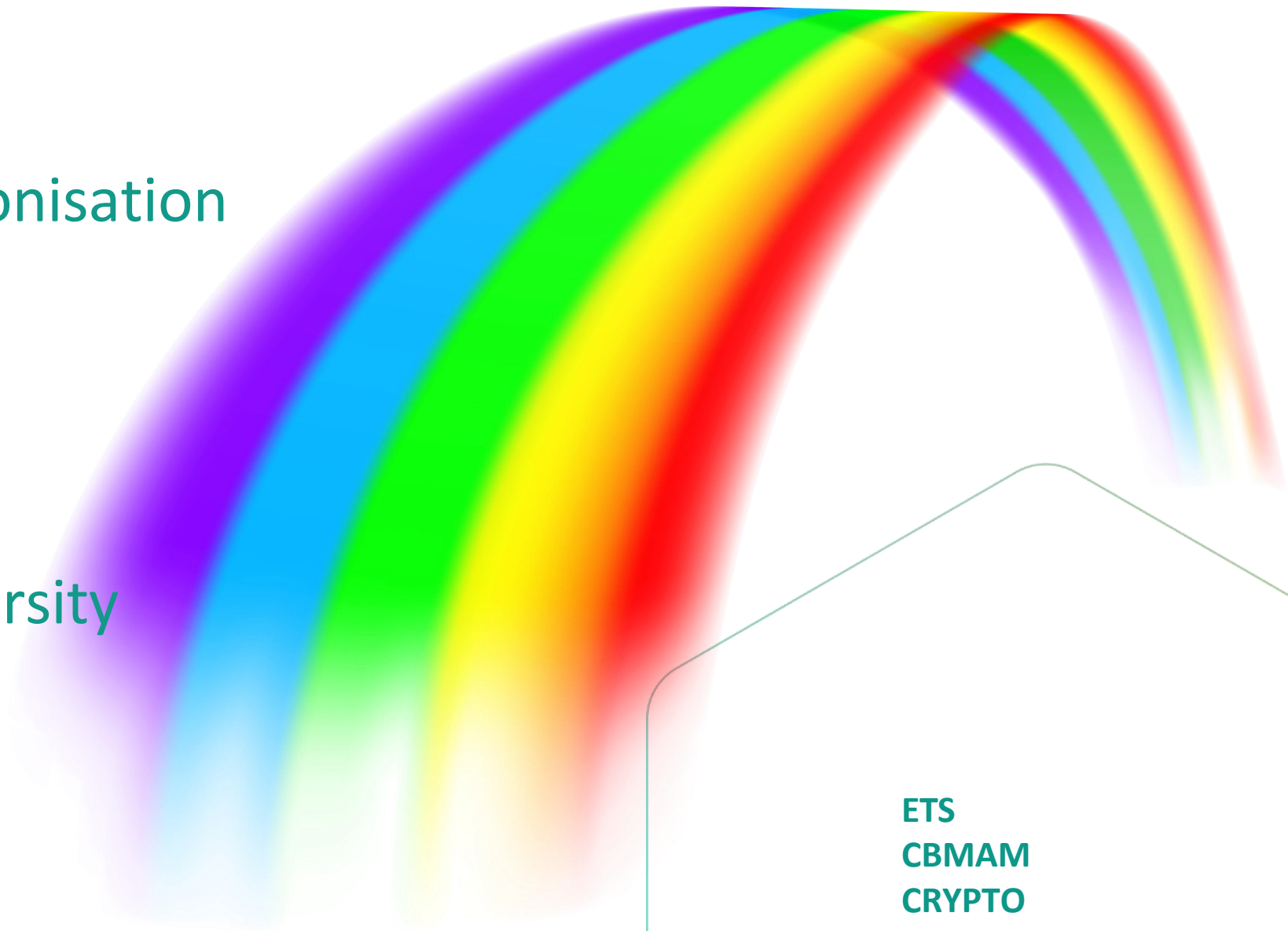
The end of the rainbow



Time to decarbonisation

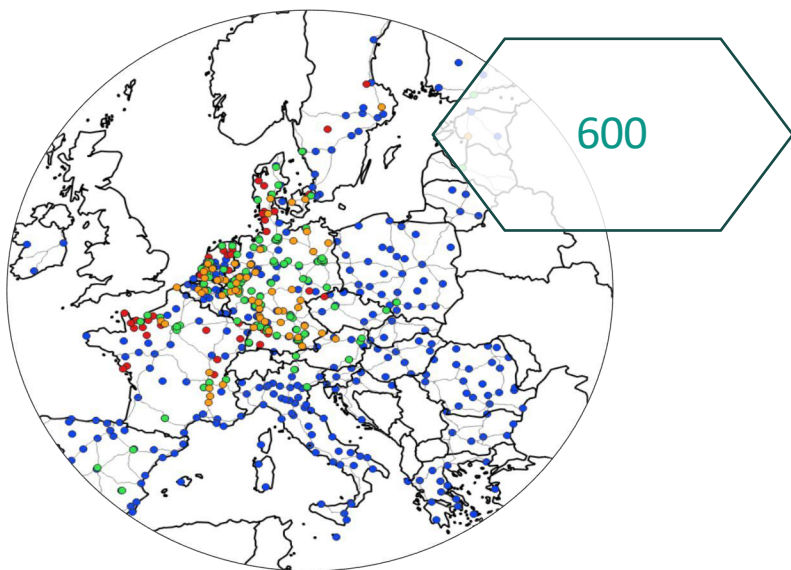


Technology diversity



ETS
CBMAM
CRYPTO

Implementation of targets



“Swiftly implement and enforce net zero targets to provide certainty and boost demand”

Derisking



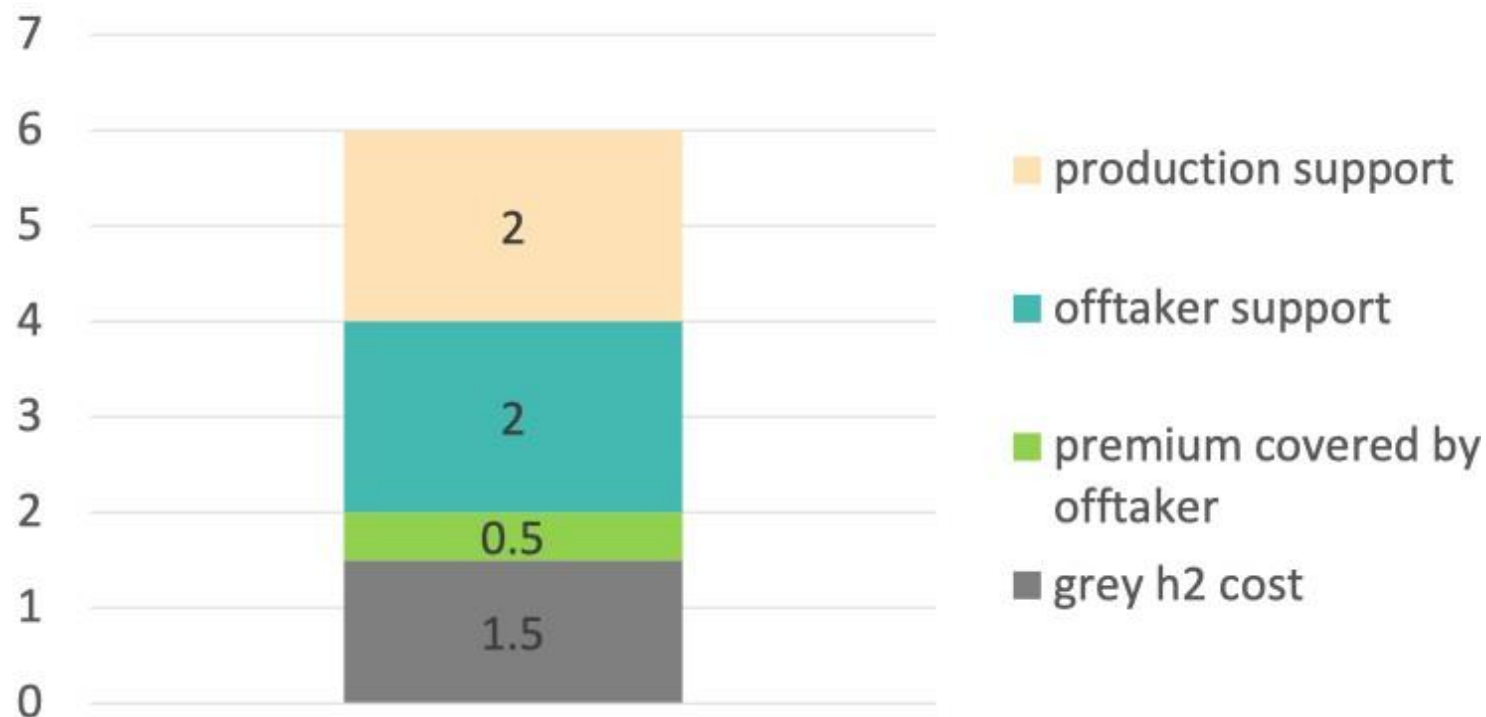
EU Hydrogen Bank

- Coordinating infrastructure use
- Negotiating with international partners
- Production support
- Off-taker instrument

“Make clean hydrogen abundant and cheaper by strengthening the European Hydrogen Bank”

Sharing the price of premium of renewable hydrogen

EUR/kg



* Assuming RFNBO cost of 6 EUR/ Kg

The additional cost of RFNBOs hydrogen must be covered by public and private actors

Simplification



“Simplify unnecessary and burdensome regulatory requirements that artificially increase the price of hydrogen”

Funding and Finance



**“Simplify and speed up
disbursement of funding for
clean hydrogen”**

Grid expansion for renewables

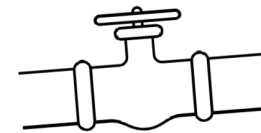
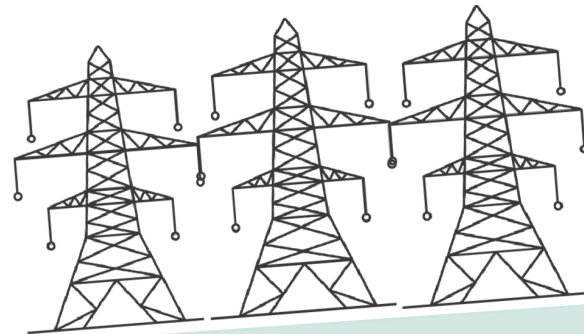
Grid expansion: 4800 km
new + 2500 km upgrade =
230 Billion €.

Electricity

Hydrogen

Hydrogen grid: 10.000 km =
20 Billion €

Congestion management +
curtailment: **10,9 Billion €**
(2023),



Synergies not competition





20 - 24 November 2023
Brussels, Belgium
euhydrogenweek.eu

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Thank You



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