



Policy Contribution  
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# A whole-economy carbon price for Europe and how to get there

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Bundesministerium  
für Bildung  
und Forschung

# Motivation

- More ambitious targets
- Current architecture insufficient
  - No/very low carbon prices in important sectors
  - High political uncertainty on future pricing
    - Interaction with complementary policies not addressed
  - ESR-targets not sure to deliver
  - Higher and more uncertain marginal abatement cost -> regulation and subsidies will get expensive
- A whole economy carbon-price

# First best (universal, credible) carbon price required, but four considerations

## Market readiness

EXISTING ETS took two years of trial phase and continuous adjustments since 2007 to mature -> carbon pricing in very different sectors will also require up to 5 years to be resilient

## Competitiveness and social equity concerns

CARBON prices will impact competitiveness of companies and welfare of households -> revenues should be used to help both, but mixing these two issues will be politically difficult

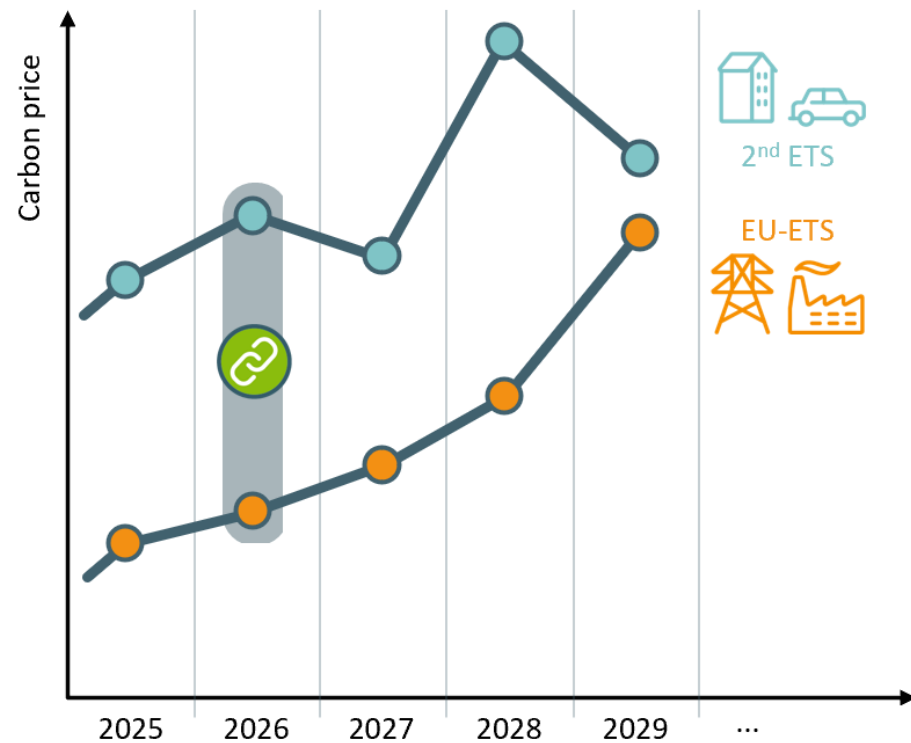
## Commitment problem

TODAYS governments cannot credibly commit, that future governments let carbon markets play out irrespective of possibly very low/high prices -> markets *politically* discount future carbon prices


## Other externalities


ONLY based on carbon prices, markets underinvest in new technologies and assets needed for decarbonisation (renovation, green cement, ...) due to split-incentives and market barriers

# Two ETS with carbon price balancer

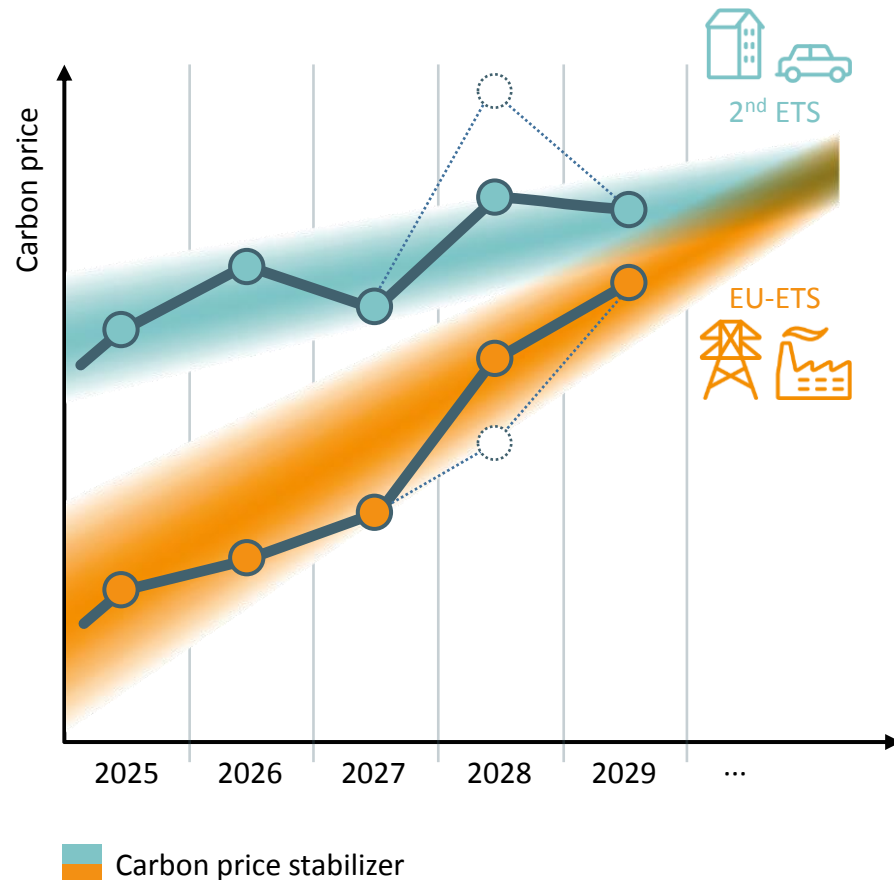


- Start with **two separate ETS**
- Use **carbon price balancer** (linking) to manage price differences between the two systems in the short run

 linking activated

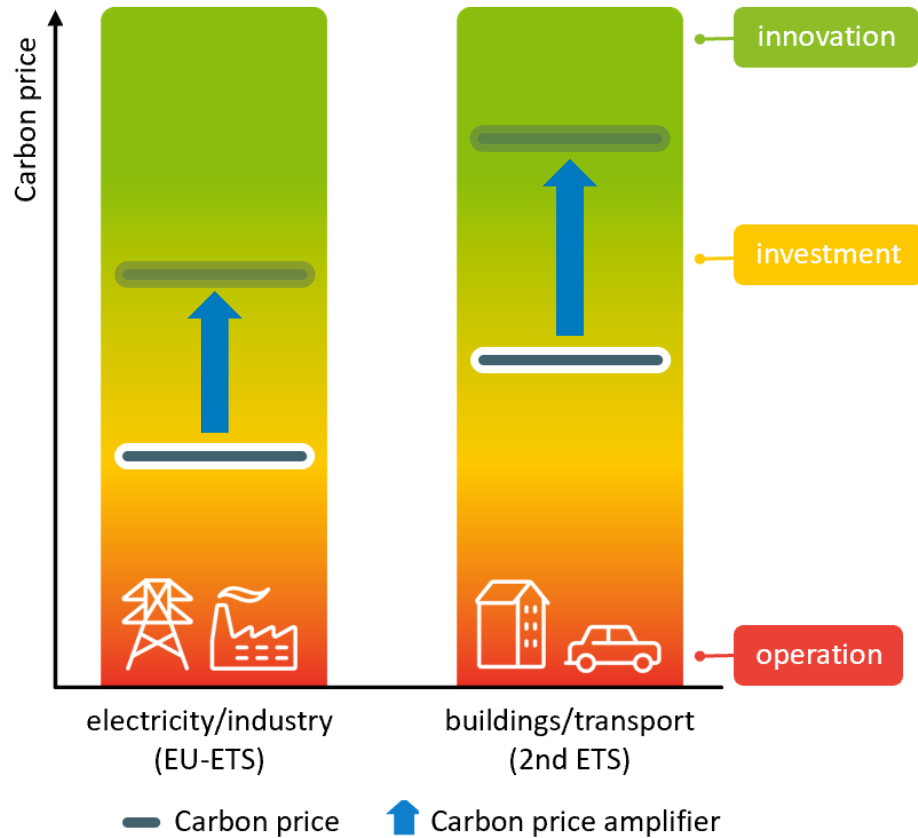
 Carbon price balancer

# Carbon price stabilizer



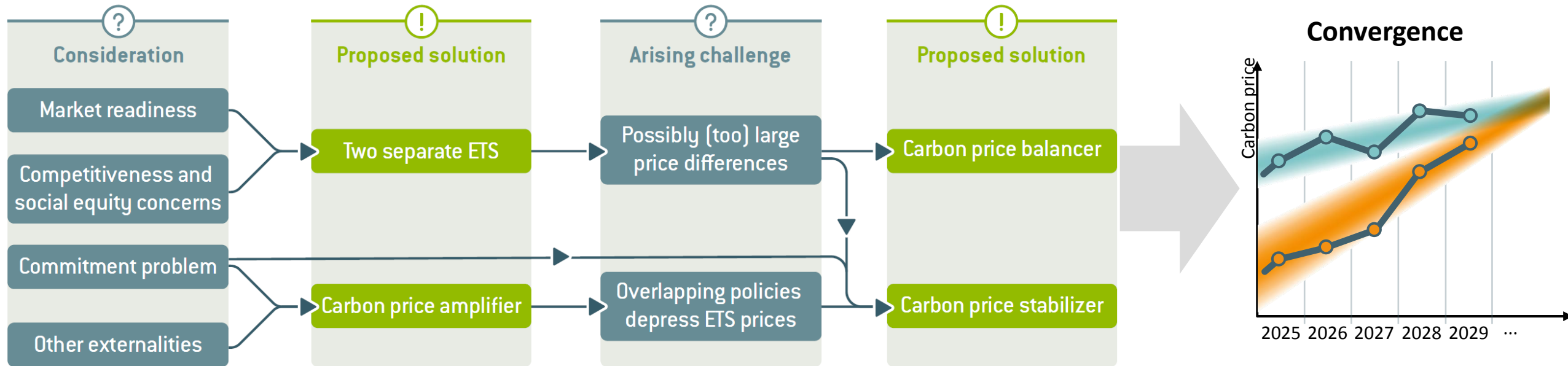
- Build in long-term **convergence**
- Use **carbon price stabilizers** (price collar) to address the commitment problem and ensure price convergence

# Carbon price amplifier



- Trigger fast investment and innovation
- Use **carbon price amplifiers** (additional policies) to address the commitment problem and other externalities

# An architecture to firmly move to a whole-economy carbon price for the EU



# Cross-country distributional questions

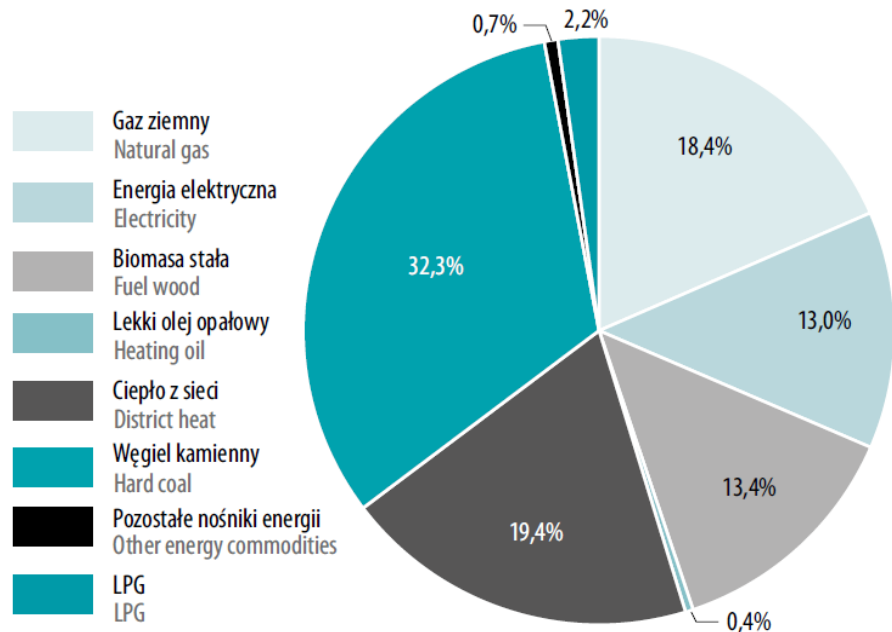
- (1) When discussing a reform of the carbon pricing architecture, cross-country distributional effects - such as the one mentioned by Minister Kurtyka – will be key for finding a compromise.
- (2) All stakeholders will have strong positions, but there are many different levers that can be used to hammer out a compromise (initial allocation of allowances in both ETS by country; size and structure of EU different funds)
- (3) This will possibly need to happen at the highest political level, but needs to be informed by analysis.



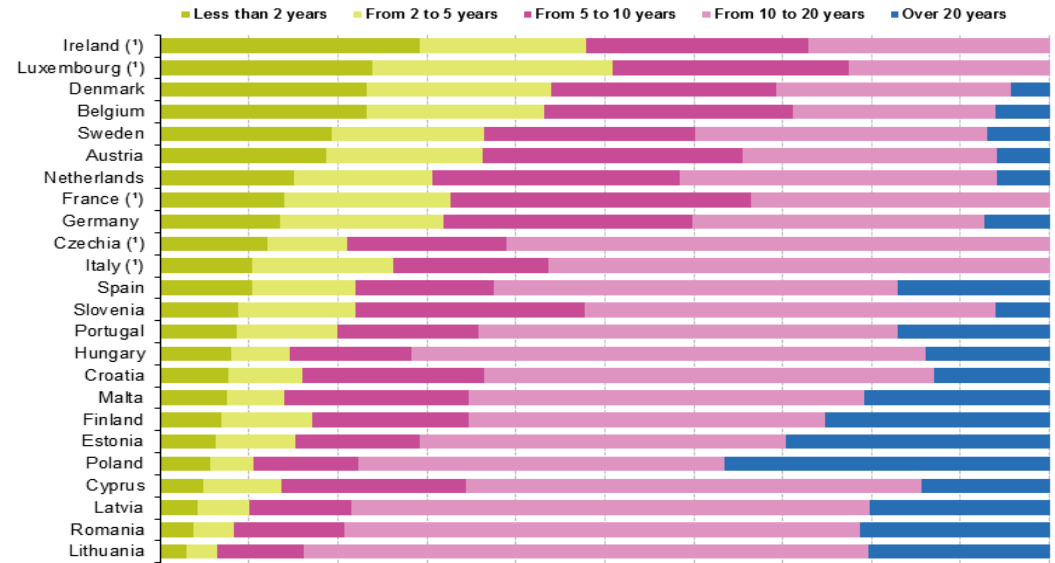
# Polish transport & heating (buildings) particularly carbon-intensive

Roughly one third of household energy use from hard coal

Highest share of passenger cars over 20 years old in Poland



Passenger cars by age, 2018  
(% of all passenger cars)



# Principles for fair allocation of allowances?

	<b>Population [Million]</b>	<b>Mean income [1000 EUR]</b>	<b>Emissions Transport [Mt]</b>	<b>Emissions Residential and Commercial [Mt]</b>
<b>Poland</b>	38	7	64	42
<b>Germany</b>	83	23	162	115
<b>France</b>	67	23	131	70

# Thank you

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