

# UK Carbon Policy in the European Context

18 September 2014

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Support by the UK Economic and Social Research Council and  
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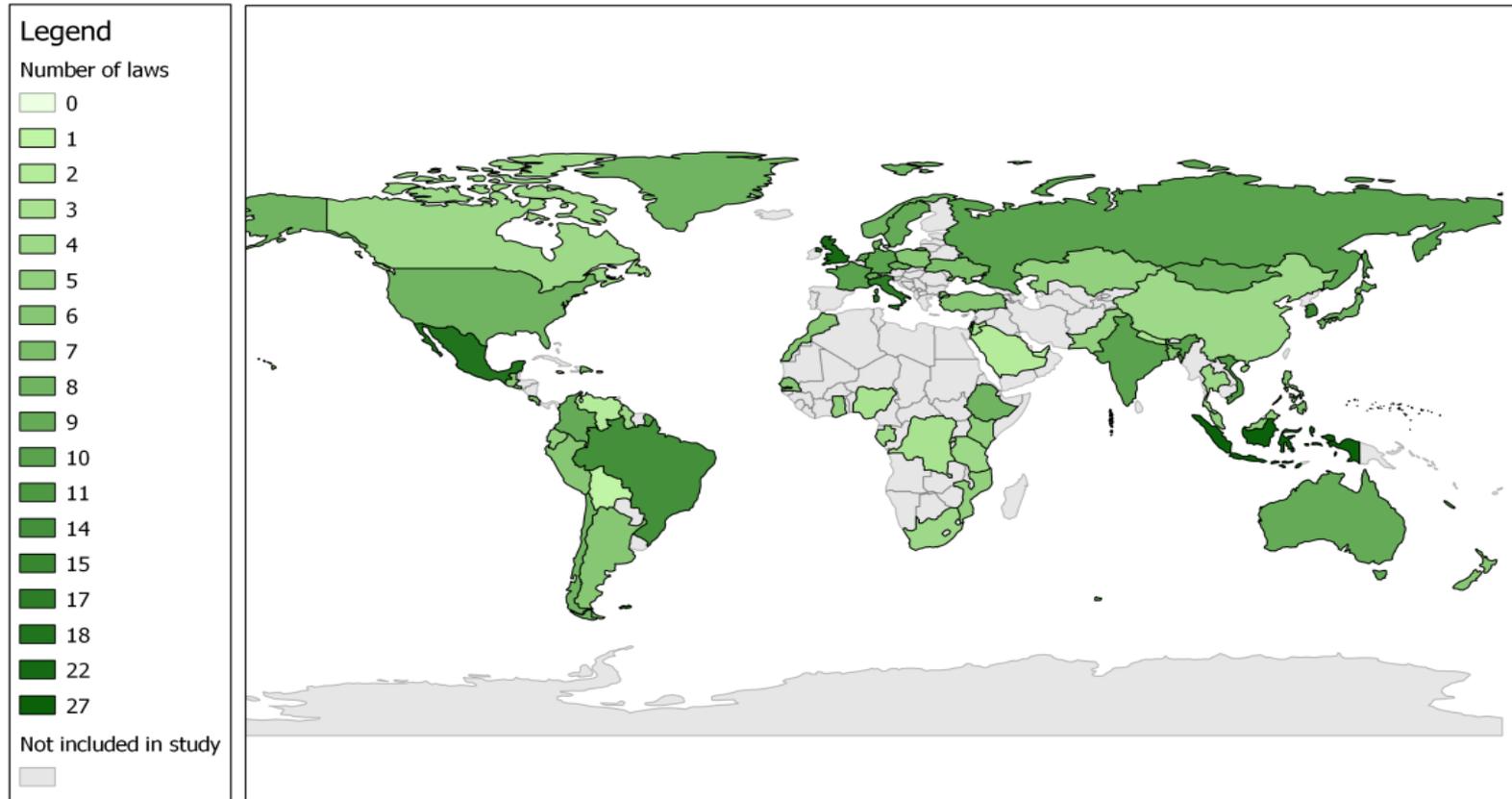


# Overview

- Europe in the global context
- UK in the European context
- Conclusions

# Legal basis for climate action in most countries

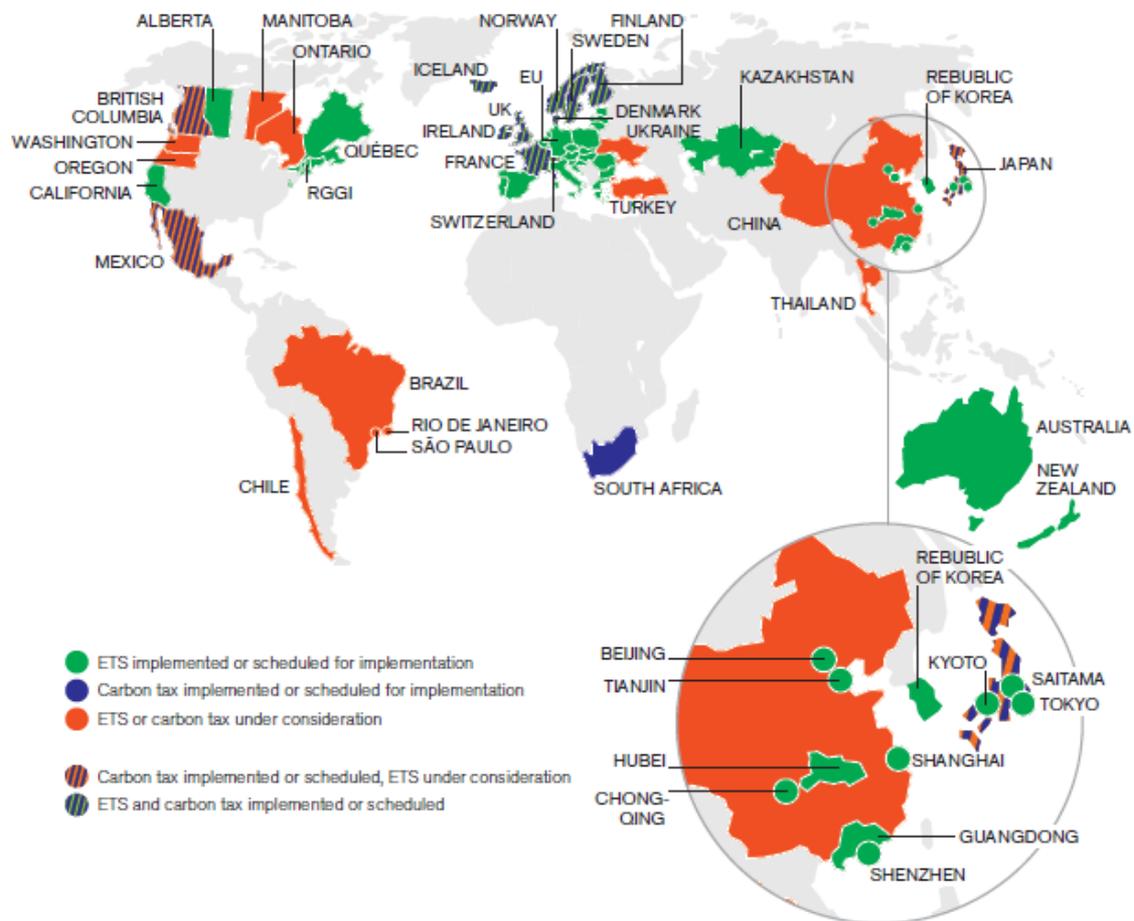
Survey of 65 countries plus EU found almost 500 climate or climate-related laws  
Ambitions vary, but institutional frameworks for action are increasingly in place



Source: Nachmany, Fankhauser et al, The Globe Climate Legislation Study 2014

# Growing willingness globally to price carbon

Both in developed countries and emerging markets; either through taxes or trading schemes;  
Varying price levels from less than \$3 / tCO<sub>2</sub> to over \$70 / tCO<sub>2</sub>



# UK carbon targets comparable to others

Comparisons are difficult, given different economic contexts

But expressed in terms of carbon intensity, UK 2020 target is similar to China's

	UK (4 <sup>th</sup> carbon budget)	China (12 <sup>th</sup> 5-year Plan)
Absolute target (% redn from 1990)	50%	
Intensity target (% redn from 2005)	~40%	40-45%

Note: Assumes average UK GDP growth of 2 – 2.5% going forward

Source: Bassi, Fankhauser et al. Walking Alone? Grantham Res. Inst. 2014

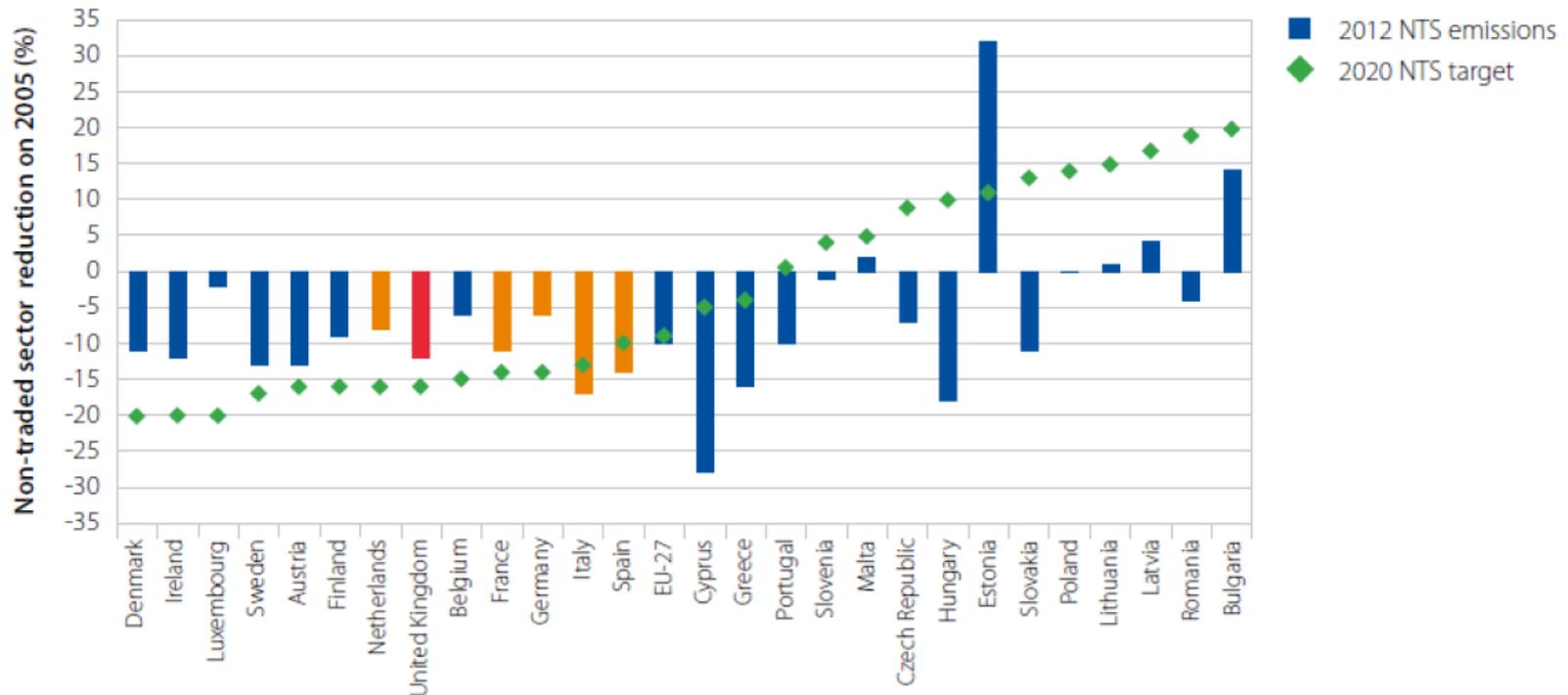


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# Some way to go on non-traded sector targets

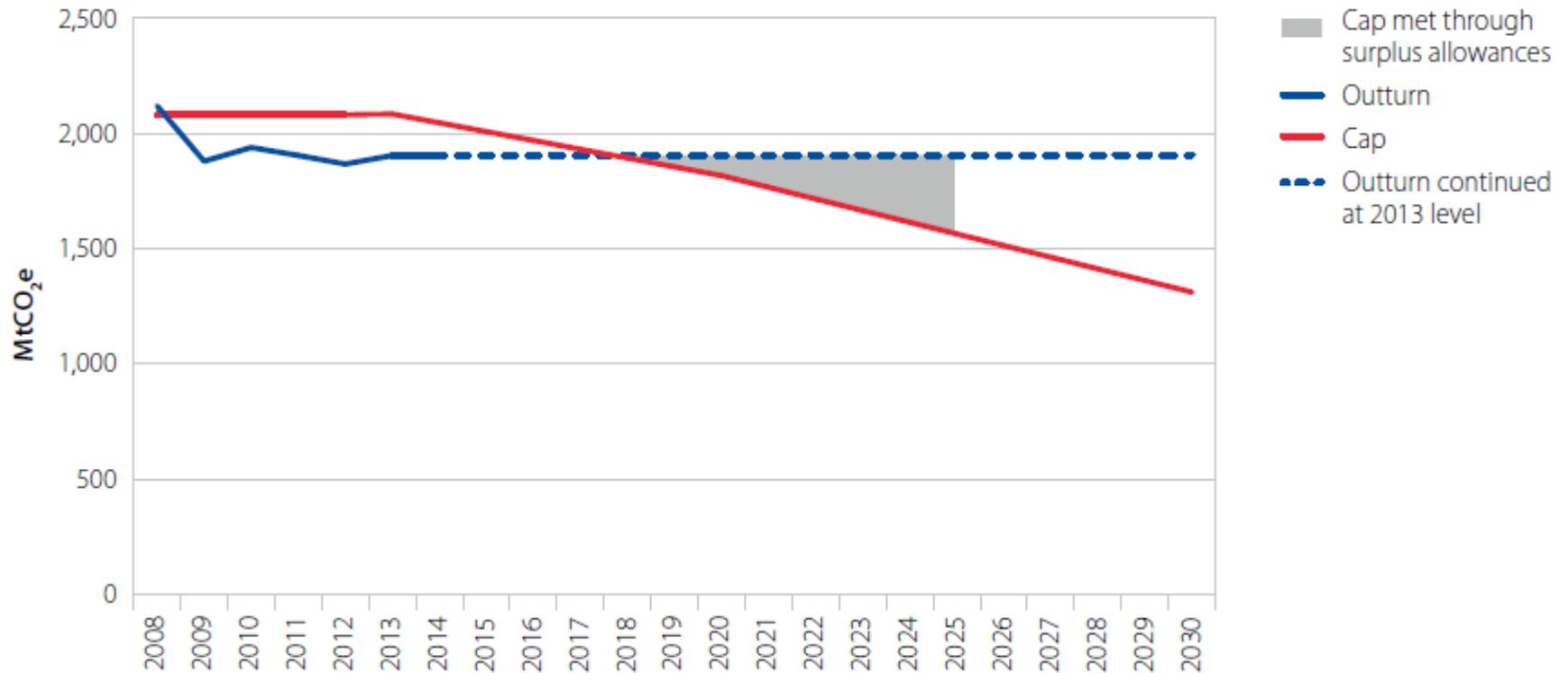
Compliance with 2020 non-traded targets are within reach mostly in countries where (i) targets were lenient or (ii) recession hit hard; UK can meet hers



Note: NTS = Non-traded sector; orange = top 5 emitters (besides the UK)  
Source: Committee on Climate Change, Progress Report 2014

# Challenge in the traded sector is to tighten cap

Current surplus is sufficient to last another decade (on current performance)

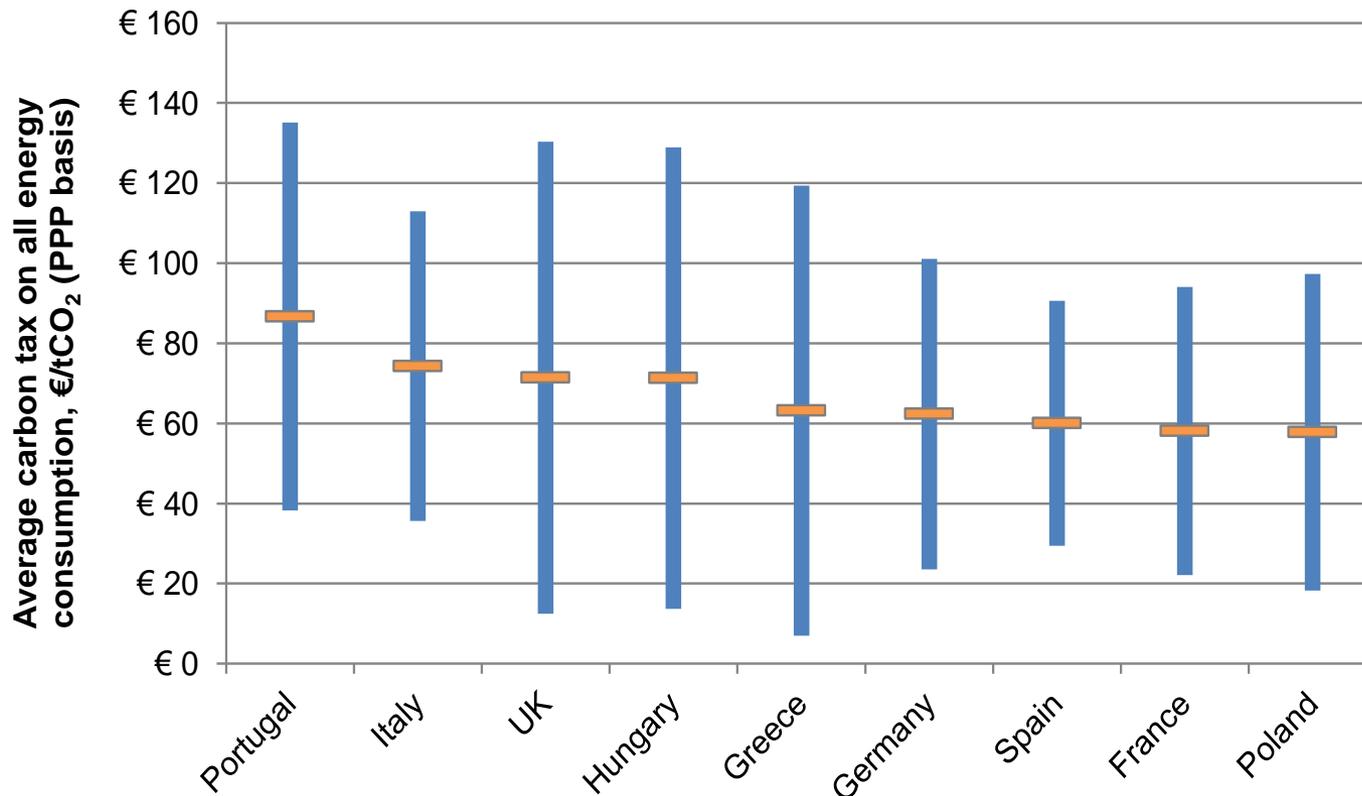


Source: Committee on Climate Change, Progress Report 2014



# Considerable variation in EU carbon pricing

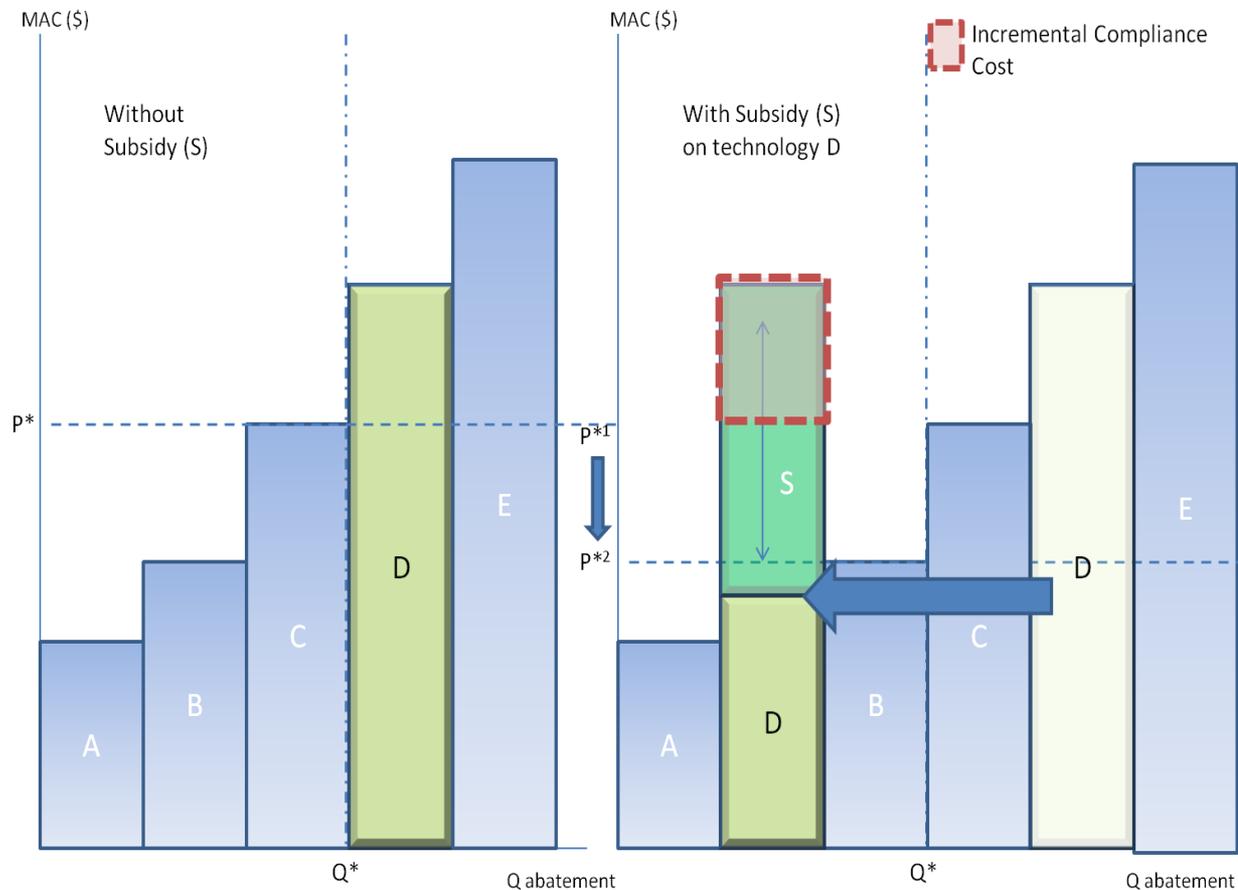
Carbon price variation both within and between countries  
UK among the countries with the highest variation



Note: Blue bars show the size of one standard deviation, **not** highest and lowest tax rates  
Source: Vivid Economics (2012).

# Policy overlaps can dampen price signal...

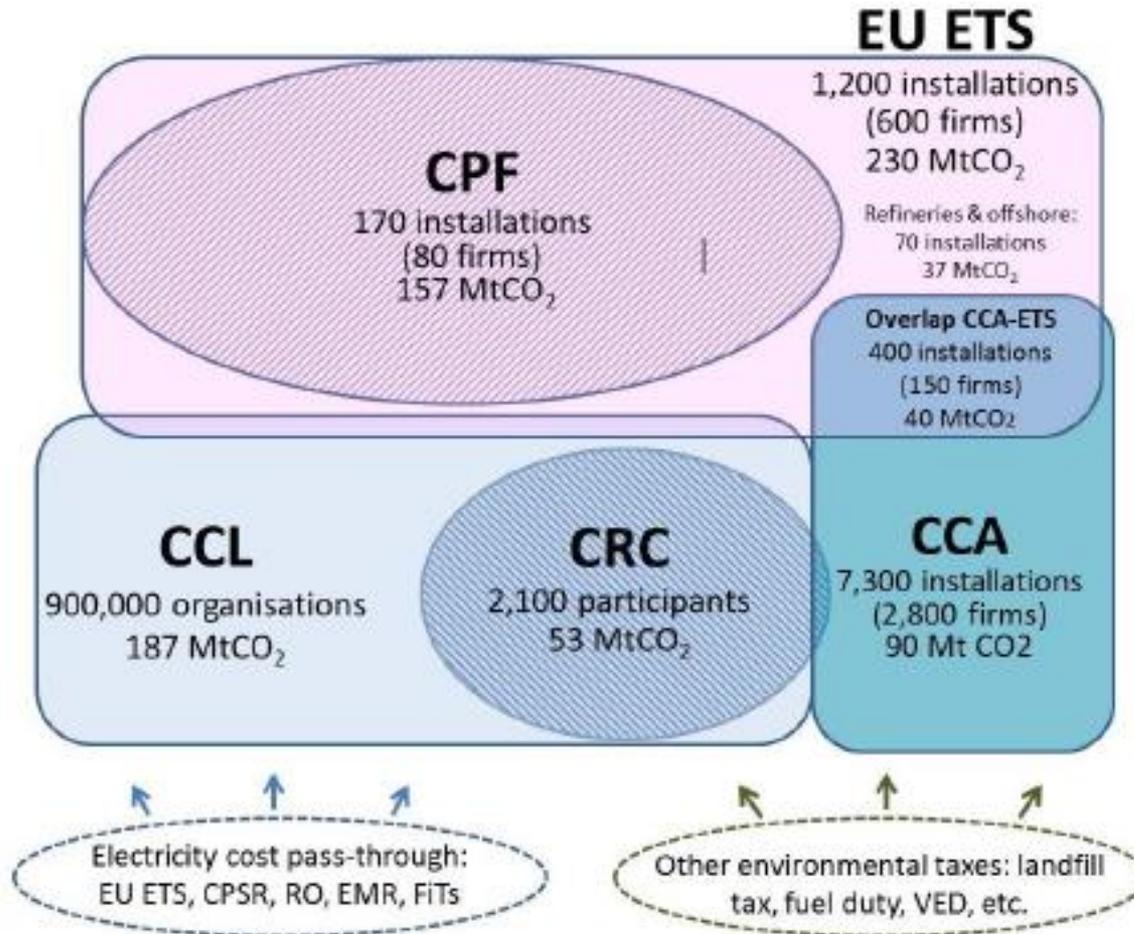
Subsidy for abatement option D changes the marginal abatement cost curve, lowers price  
Although support e.g. for renewable energy may be justified for technology policy reasons



Source: Fankhauser, Hepburn, Park, Combining Multiple Climate Policy Instruments, Climate Change Economics 2010

# ... and create administrative complexity

For example, UK aimed at business emissions



Source: Bassi, Dechezlepretre Fankhauser, Climate Change Policies and the UK Business Sector, Grantham Research Institute, 2013

## Policy conclusions

- Global economies increasingly legislate on climate
  - Does not add up to the 2°C target
  - But may have repercussions on fossil fuel investment
- UK is at the forefront of European and global efforts, but not acting alone
  - Front-loaded UK decarbonisation path is least cost
  - Impact on competitiveness is manageable
- Clarity on EU ambition for 2030 is essential
  - Including fixing the EU ETS

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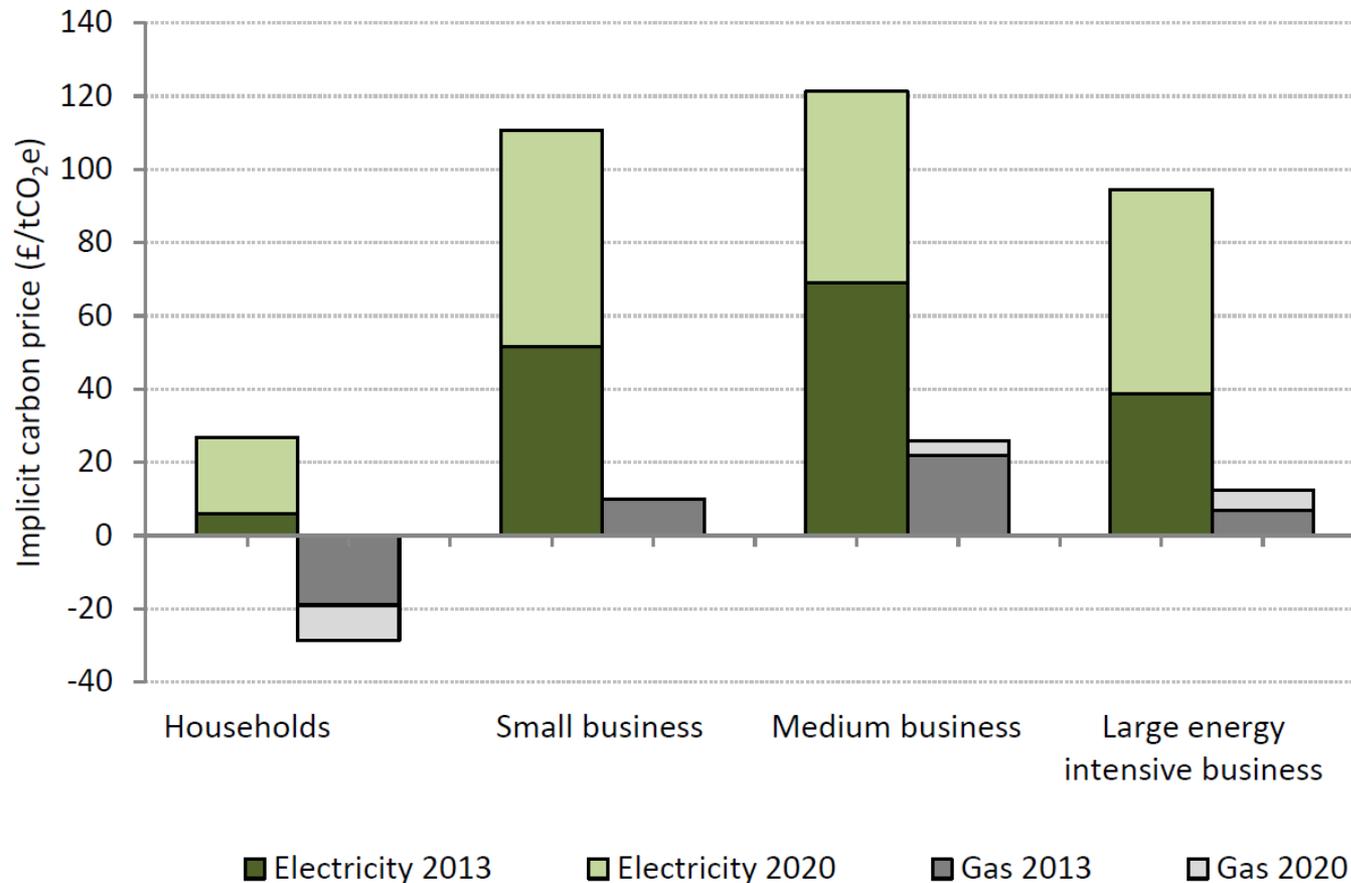
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# Example: Price variation in the UK

UK implicit carbon prices vary from negative (low-VAT gas for households) to >£60/tCO<sub>2</sub> (electricity for businesses subject to CCL, CRC, electricity-policy pass through)



Source: Advani, Bassi et al. Energy Use Policies and Carbon Pricing in the UK, Institute for Fiscal Studies and Grantham Research Institute, 2013

