



# ECF Roadmap 2050 project: “From Roadmaps To Reality”

IEA

*Workshop on integrating carbon pricing with energy policies*

18 March 2013

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Phase

**1**

**Roadmap 2050: a practical guide to a prosperous, low carbon Europe**



**COM low-carbon 2050 Roadmap**

Phase

**2**

**Power Perspectives 2030: on the road to a decarbonised power sector**



**COM energy 2050 Roadmap**

Phase

**3**






































**From Roadmaps to Reality**

**Technical and economic analysis**



**Policy and Implementation analysis**

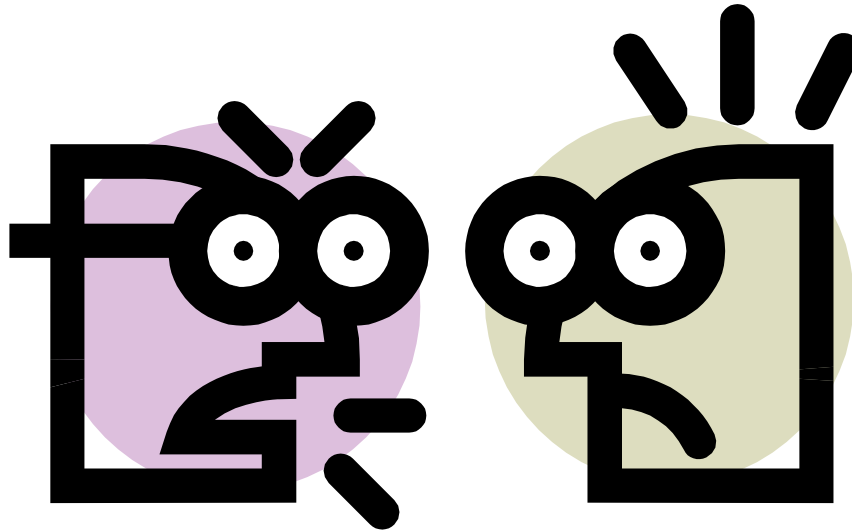
# PROJECT STRUCTURE AND PARTICIPANTS

| Coordinator  | Participants        |   |  |   | Expert panel  |   |   |
|--|---------------------|---|--|---|---|---|---|
|                      | Utilities           | <br><br> | <br><br> | <br><br> | <br><br> | <p>Prof. Dr. Christian Von Hirschhausen,<br/><b>TU Berlin</b></p>               |   |
| <p>Lead authors</p>  | Energy              |    |   |   |   | <p>Prof. Dr. Jean-Michel Glachant,<br/><b>Florence School of Regulation</b></p> |   |
|                      | Tech Manufacturers  |    |   |   |    | <p>Dr. Goran Strbac,<br/><b>Imperial College London</b></p>                     |   |
|  | TSOs                |    |   |    |    |   |   |
|  | DSOs                |    |   |   |   | <p>Georg Zachmann,<br/><b>Brueghel</b></p>                                      |   |
|  | NGO                 |    |   |    |   |   |   |
| <p>Contributing authors</p>  | Other organisations |    |   |    |   |   |   |
|  | IT companies        |    |  |   |   |   |   |
|  | Finance             |    |    |   |   | <p>Prof. Jorge Vasconcelos,<br/><b>TU Lisbon</b></p>                            |   |
|  | Consumers           |    |  |   |   |   | <p>Christina Hood,<br/><b>IEA</b></p> <p>Prof. Dr. Michael Grubb,<br/><b>Cambridge University</b></p> |



ETS is all you need:

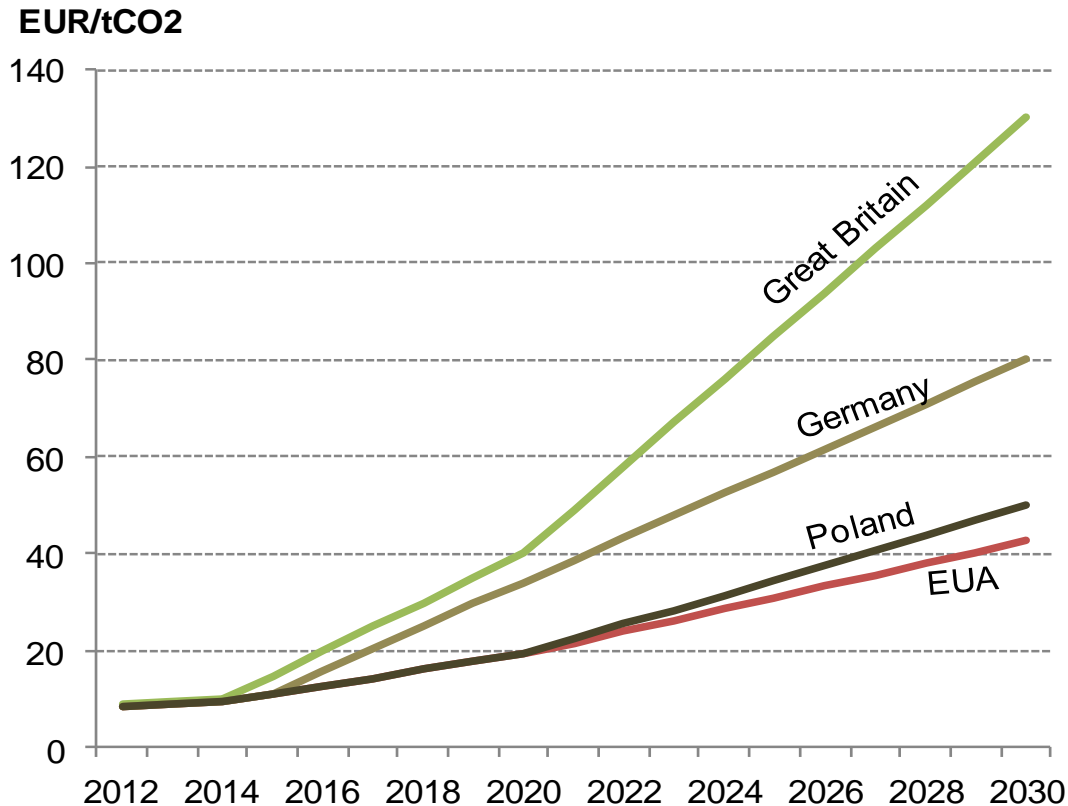
- Caps emissions
- Optimises across sectors
- Market driven abatement
- Self-correcting



Policy-makers are trying to deliver other important policy objectives. We cannot assume that politicians will leave the cap alone, regardless of the impact it might be having on energy costs or security of supply.

A broad policy framework is needed to manage the risks of (1) cost and (2) security of supply excursions. It is this tendency to intervene that undermines the self-correcting features of cap and trade mechanisms and creates the rationale for additional mechanisms.

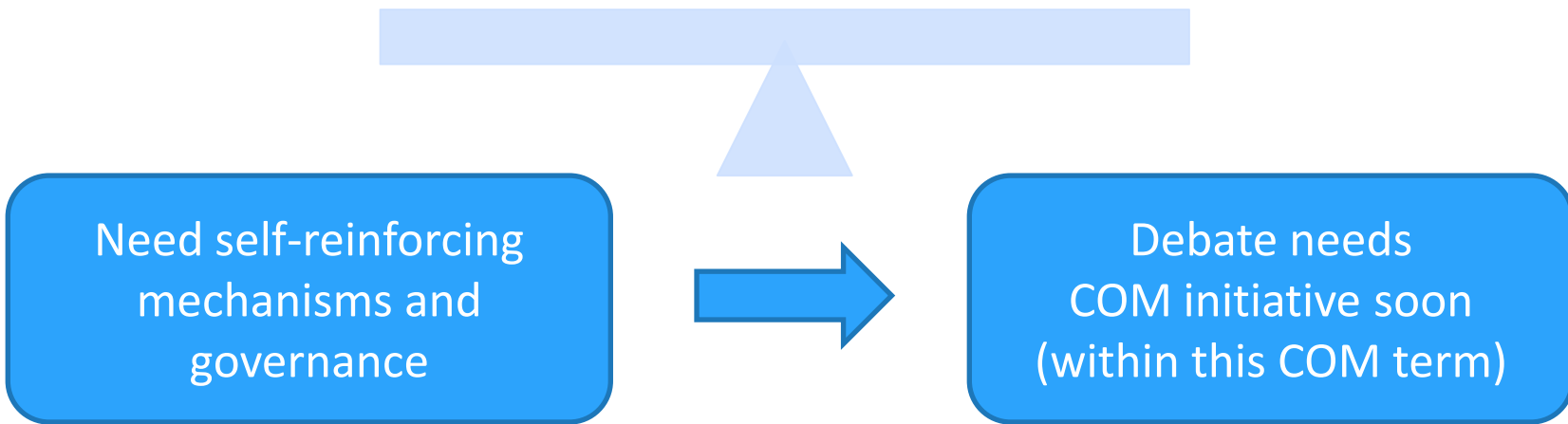
Fig. EUA price projections and carbon price necessary to deliver national targets



Source: E3G - Risk managing power sector decarbonisation in Great Britain, Poland and Germany

- Investment model - For each market the carbon price develops to find the required level in order to achieve the carbon emission targets (based on current national policies)
- The difference between countries is a reflection both of different carbon targets and of different starting points and investment cycles
- In EUA, the carbon price trajectory of the EC's Energy Roadmap 2050 was adopted

| <b>Carbon pricing vs complementary measures</b>                           | <b>EU vs MS level governance</b>   |
|---|--|
| EU ETS covering power sector post-2020 is needed                          | Analyses indicates cost benefits from EU-coordinated approach                      |
| MS have different decarb objectives and views on support for technologies | EU-wide or regional cooperation mechanisms for RES post-2020 become more important |
| What about technology neutrality vs 'picking winners'?                    | Best solution may end up close to current model (improved version, "Package 2.0")  |



## *Key questions to address*

- Governance and coherence between jurisdictions: over the next decade, will we have a strong or weak Europe concerning energy policy?
  - What are the advantages/disadvantages for Member States in signing up to pan-EU complementary measures?
- Instruments and coherence between instruments: will the ETS be the primary driver of decarbonisation or, as present, a backstop instrument to ensure particular goals are met
  - What complementary measures are needed to ensure broader energy policy objectives, what options do Member States have?
  - How can complementary policies be designed and implemented to ensure they reinforce the role of ETS rather than undermine it?
  - Are there any new high level design features that the ETS must have (e.g. to stabilise price) to ensure consistency with complementary measures and support efficient investment?





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*Thank you*

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