- Integrating technology and carbon pricing for a ‘Club Good’

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Special Session on
TECHNOLOGY INVESTMENT, FINANCE,
AND THE ROLES FOR PRICING CARBON

• Context
• Why a technology lens for international cooperation?
• What are the core problem(s) to be solved?
• The role(s) of carbon pricing
• International strategies and linkages?
Pillar II (Pricing) conclusions

‘Carbon pricing is political suicide’
-Stephan Dion,
former Canadian Environment Minister and (briefly) leader of the Liberal Party
Comment after losing the General Election to Stephen Harper

• Economics of carbon pricing: design and strategic credibility are just as important as present level
• Politics of carbon pricing are driven by distributional impacts and the lack of clearly articulated positive narrative for either industry or consumers
• Links to the other two pillars (broadly, efficiency and innovation) are central to a positive narrative which enhances development and competitiveness and avoids big impacts on energy bills
International – why technology?

• Many international efforts focus on targets or pricing
• Technology has a theoretical appeal in a global context
• .... And a very practical one
• But has a mixed record and a surprising low profile in the international negotiations
  – Major focus has been push by developing countries on technology transfer / cooperation
  – Which makes industrialised countries nervous both about IP and costs
We are seeking radical innovation in some of the least innovative sectors of our economies.

Fig. 9.3 R&D expenditure by top companies in different sectors as % of sales, 2011

What is missing?

Money =========⇒ (at rising scale)

Low innovation, little connection between innovators and markets
R&D intensity < 1% (eg. energy & construction)

Technology push ⇒ Technology Valley of Death ⇒ Market pull

⇒ ========= Markets (credible and strategically growing)

Figure 9.7. Innovation intensity and the broken chain
Innovation offers a positive narrative to carbon pricing

Strategic investment can be costly but the returns can be huge ...

- We have gained extensive experience of policies to span innovation chain
- Need integration between public and private, & strategic investment and markets
- Prices help with funding, redirection, market growth & credibility, and avoiding lock-in
- Regulatory structures and institutions must evolve along with technologies & systems
Some Questions …

- Is this linkage of ‘second and third pillars’ intellectually legitimate?
- Can linking carbon pricing and technology help to ‘detoxify’ the politics of carbon pricing?
- What role for ‘shadow carbon pricing’/AVCR in leveraging innovation investments?
- Can the link with technology credibly create a ‘net surplus’ sufficient to form a glue for international cooperation?
- What is the stake, interest & contribution of business & private finance in this?
- [How] might this relate to existing
  - UNFCCC technology institutions
  - World Bank carbon market networks + ?
  - We Mean Business coalition efforts?
- Given the obvious impediments to global deal on such specifics, should & can one design a club of cooperation around these conjoined agendas?
- What are the **practical** linkages, and how might this relate to Paris agenda?
Planetary Economics:
Energy, Climate Change and the Three Domains of Sustainable Development

Grubb, Hourcade and Neuhoff (2014)

1. Introduction: Trapped?
2. The Three Domains

Pillar 1
• Standards and engagement for smarter choice
• 3: Energy and Emissions – Technologies and Systems
• 4: Why so wasteful?
• 5: Tried and Tested – Four Decades of Energy Efficiency Policy

Pillar II
• Markets and pricing for cleaner products and processes
• 6: Pricing Pollution – of Truth and Taxes
• 7: Cap-and-trade & offsets: from idea to practice
• 8: Who’s hit? Handling the distributional impacts of carbon pricing

Pillar III
• Investment and incentives for innovation and infrastructure
• 9: Pushing further, pulling deeper
• 10: Transforming systems
• 11: The dark matter of economic growth

12. Conclusions: Changing Course

Kindle: http://www.amazon.co.uk/Planetary-Economics-Sustainable-Development-sustainable-ebook/dp/B00JQFBWDO/ref=tmm_kin_swatch_0?_encoding=UTF8&sr=8-1&qid=1415625933

http://climatestrategies.org/projects/planetary-economics/
for information and register of related events.