



Work Package 5

Financing and incentivisation

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Main policy issues and presentation outline

- Financing
- Incentivisation
- Disincentivisation
- Investment risk



Main research questions

- Status of existing policies
- Barriers/opportunities for including CCS in the CDM
- Main cost/risk issues for CCS commercialisation
- Cost/risk issues for vanguard projects, and how these have been overcome
- Cost/risk issues that have caused projects to be restructured, halted or cancelled
- Novel policies that can be recommended to promote investments in CCS RDD&D

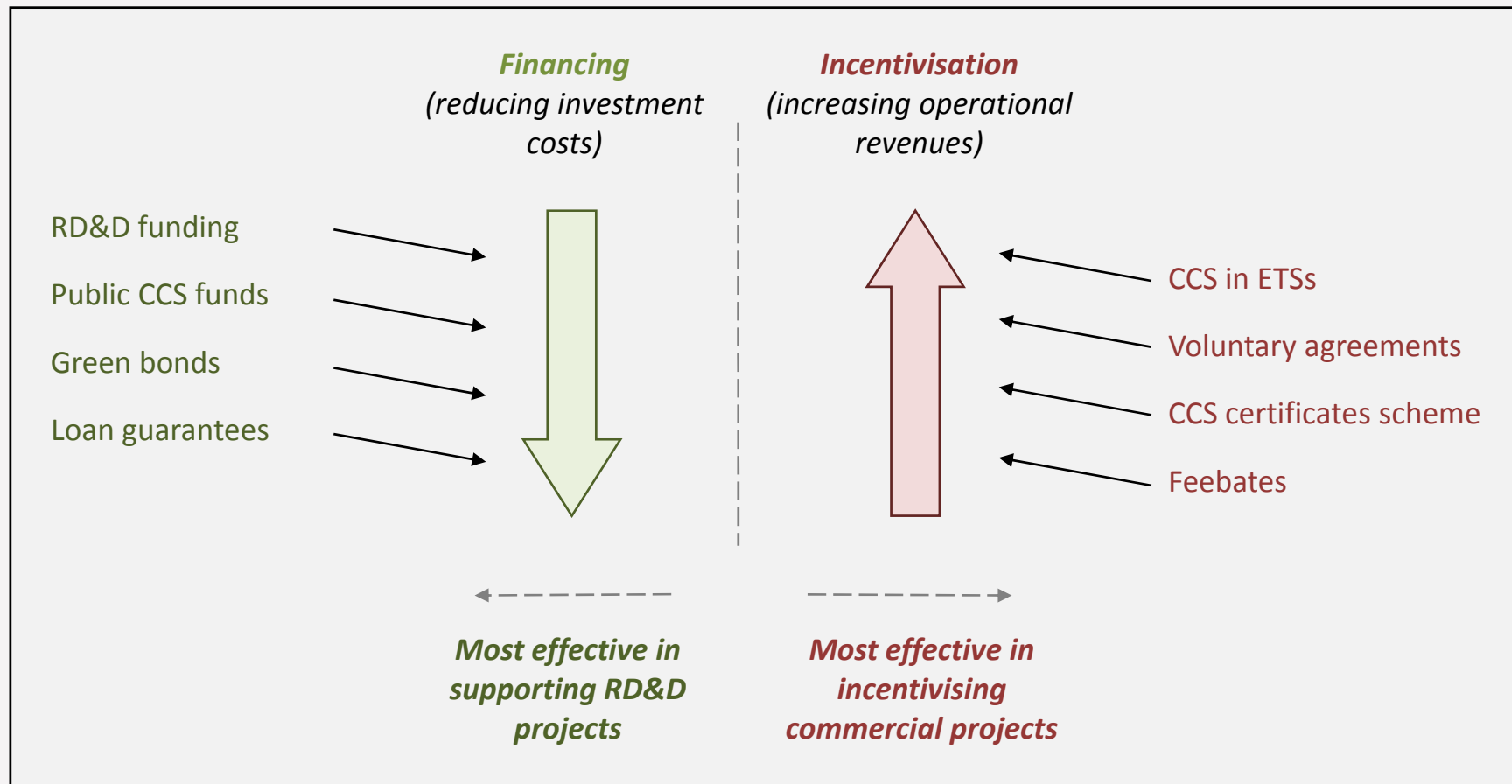


Research input

- Questionnaire
- International policy examples
- Other CCS research projects
- Literature study
- Deployment projects
- Restructured, halted, and cancelled (RHC) projects

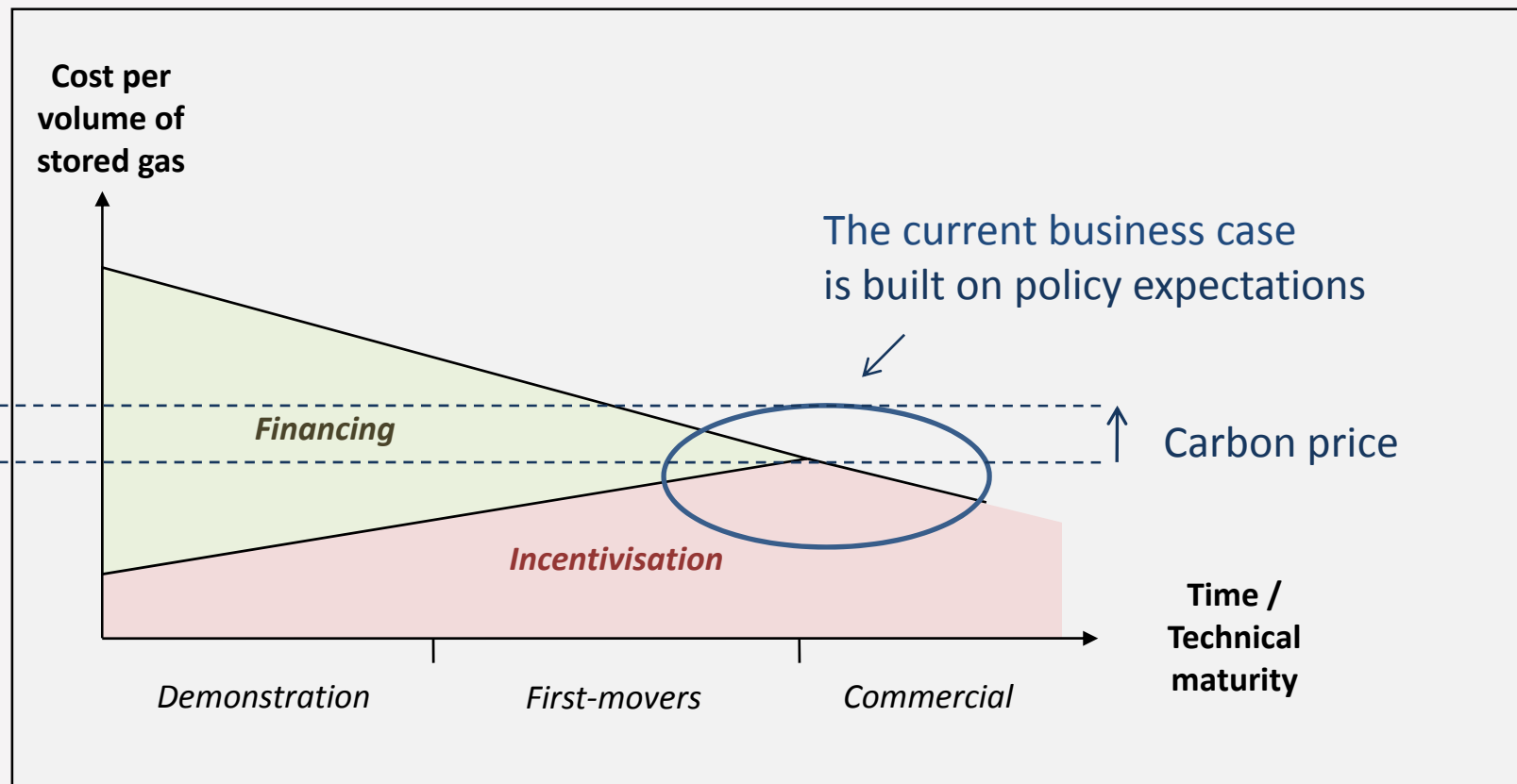


Financing and incentivisation (1)



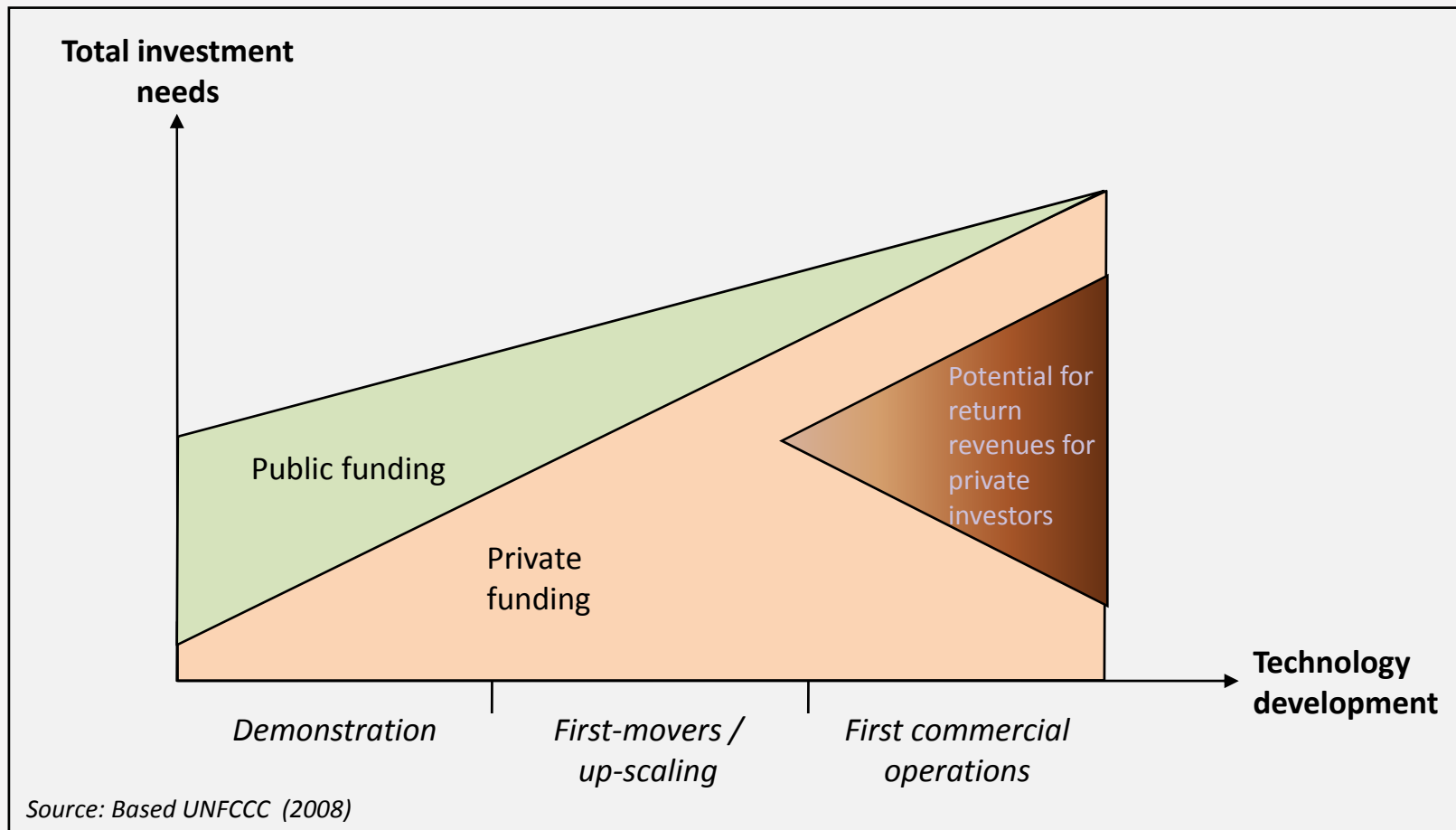


Financing and incentivisation (2)





Financing and incentivisation (3)





Financing and incentivisation (4)

- Business finance pilot projects
- Demonstration projects needs financing and incentivisation
 - Capital costs
 - Operational costs
 - Investment risks
- Focus on emissions trading
- Financing mechanisms is lacking
- Adjusting existing policies (such as OSPAR) is a prerequisite, not incentivisation

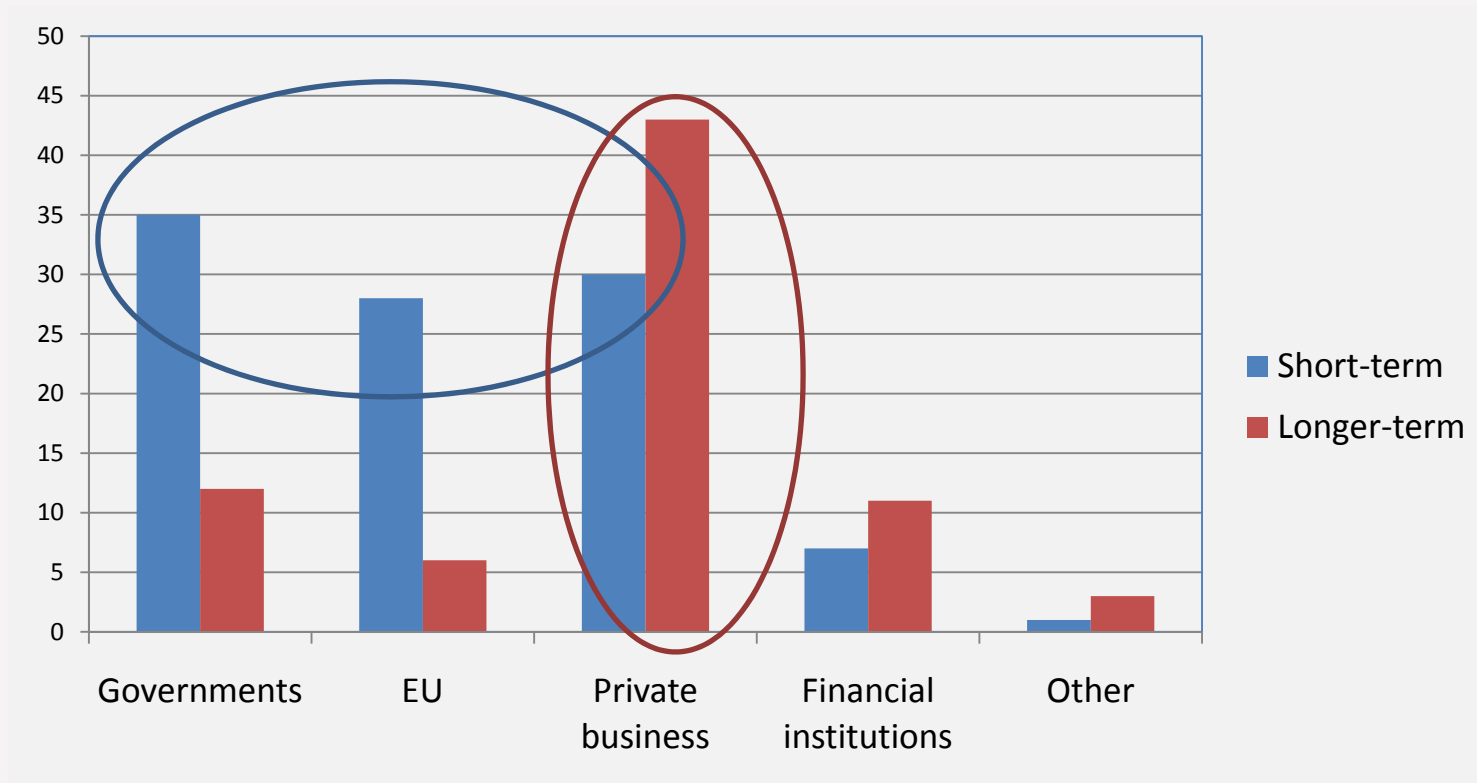


Financing and incentivisation (5)

- Financing policy suggestions
 - Public private partnerships (PPPs)



Financing and incentivisation (6)



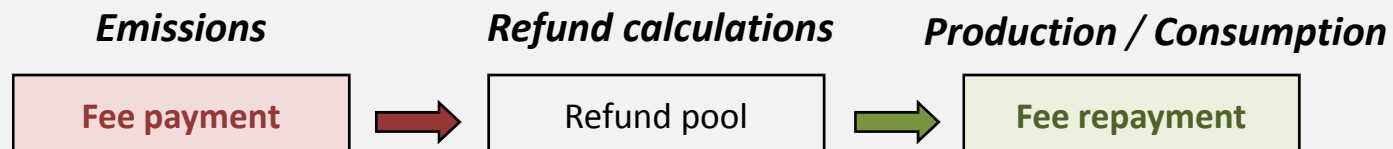


Financing and incentivisation (7)

- Financing policy suggestions
 - Public private partnerships (PPPs)
 - Green bonds
 - Technology competitions
- Incentivisation policy suggestions
 - Refunded emission payment schemes (“feebates”)

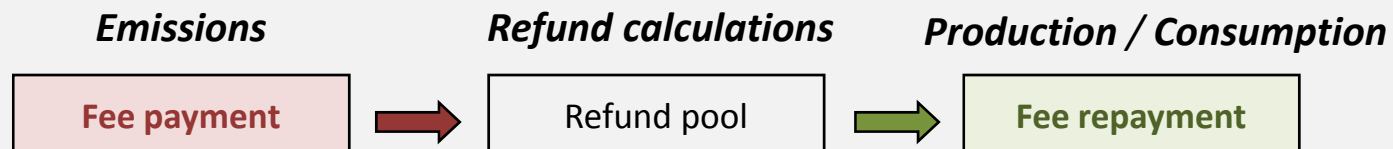


Financing and incentivisation (8)

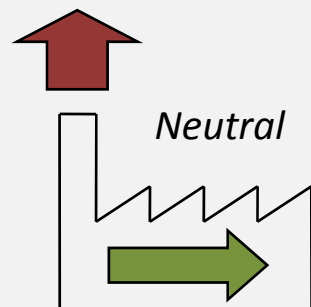




Financing and incentivisation (8)



Large fee /
Large repayment



Large production /
Large emissions



Financing and incentivisation (9)

- Financing policy suggestions
 - Public private partnerships
 - Green bonds
 - Technology competitions
- Incentivisation policy suggestions
 - Refunded emission payment schemes (“feebates”)
 - Negotiated voluntary agreements
 - The focus on emissions trading is a problem
 - CCS not recommended in the CDM at this stage

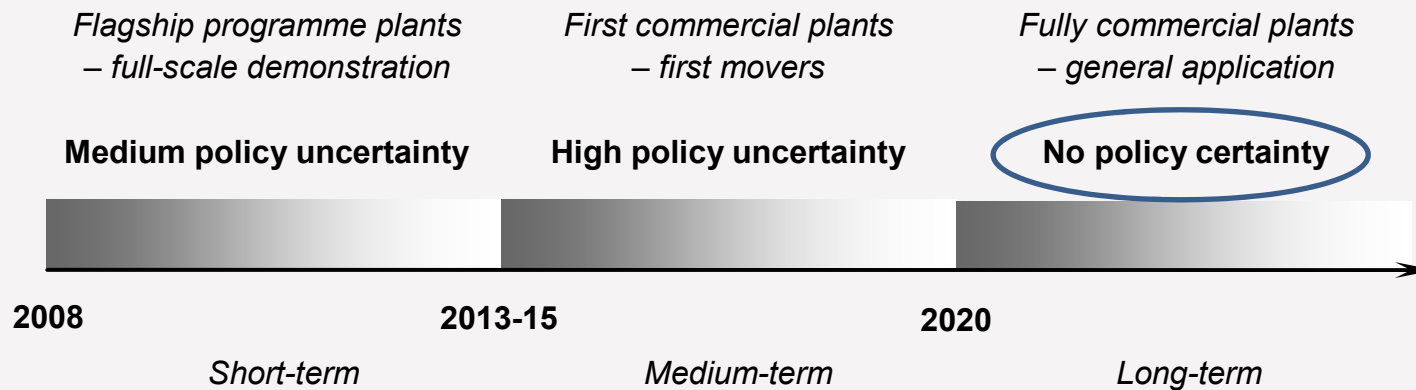


Disincentivisation (1)

- Policy obstacles
- Adjusting existing framework not incentivisation
- Short-term and complex policies
- Uncertain policy environment



Policy outlook highly uncertain





Disincentivisation (1)

- Policy obstacles
- Adjusting existing framework not incentivisation
- Short-term and complex policies
- Uncertain policy environment
- Lack of policies
- Lead time in adoption of policies
- Lack of knowledge
- Policymaking under uncertainty



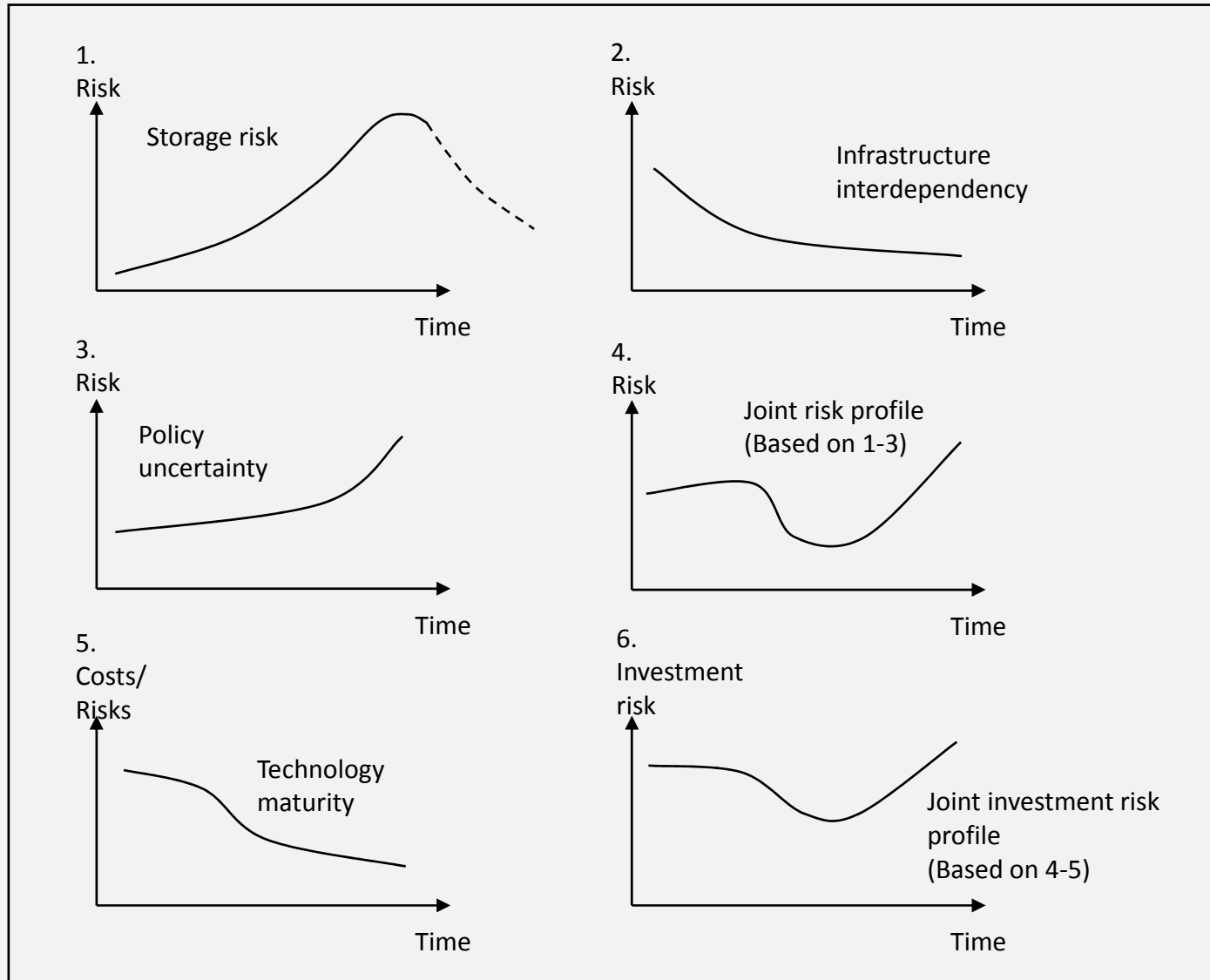
Disincentivisation (2)

- Policy suggestions
 - Participatory policy processes
 - Identify main policy obstacles
 - Joint language
 - Technology deployment scenario
 - Joint and credible policy development outlook
 - Consensus building
 - The aim: increased policy stability



Risks (1)

- CCS face high investment risks
 - Costs
 - First-mover uncertainties and higher costs
 - Policy obstacles
 - Interdependence
 - Storage, etc...
- Insurance capacity is low





Risks (2)

- Policy suggestions
 - R&D support on geological issues
 - Facility for guidance on CCS infrastructure development
 - Participatory policy processes
 - RDD&D support
 - Risk sharing facilitation
 - Long-term policies



Conclusions (1)

- The business case for CCS is very fragile and is dependent on a credible policy outlook
- Financing can kick-start demonstration
- Emissions trading likely to be too little, too late
- Move from CCS policies to CTS policies
- A robust liability and insurance solution
- CCS in the CDM not recommended at present



Conclusions (2)

- The stakeholder dialogue needs to be improved
 - Establish a common terminology to facilitate a well-functioning dialogue
 - Utilise business policy experience in a policy learning process
 - A joint global agency



Thank you for your attention!

For further information:

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And now... Questions!