



Financing the energy transition

Ton Hoff

Chairman of the EERA, Managing Director ECN

Stokholm, 21st of October 2009

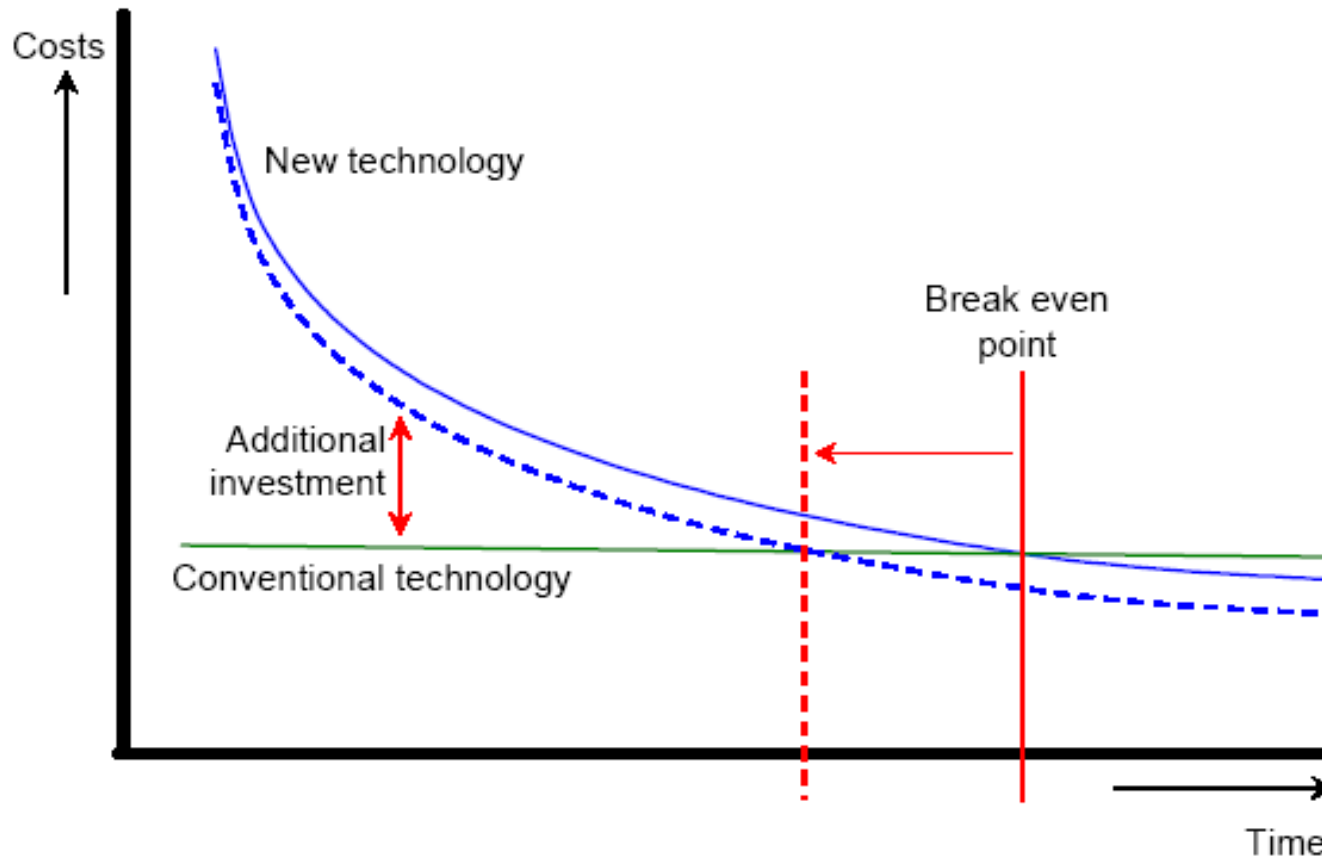
www.eera-set.eu

Key messages

- The benefits of a clean energy transition outweigh the costs
- The implementation costs are substantial and precede the benefits
- Cumulative energy transition costs can be cut down by:
 - Increasing R&D efforts
 - International cooperation on R&D and deployment

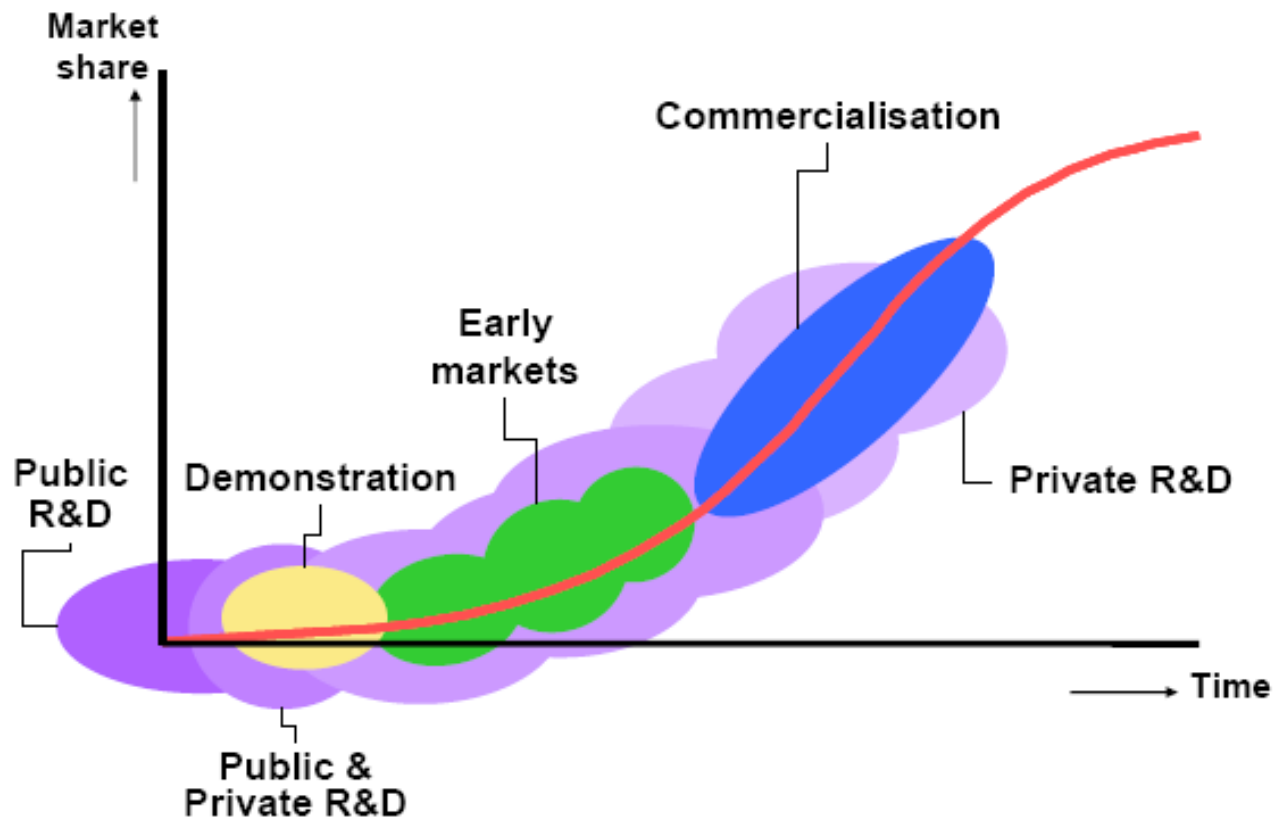
Financing the energy transition

A. Cost per unit will go down as a result of learning



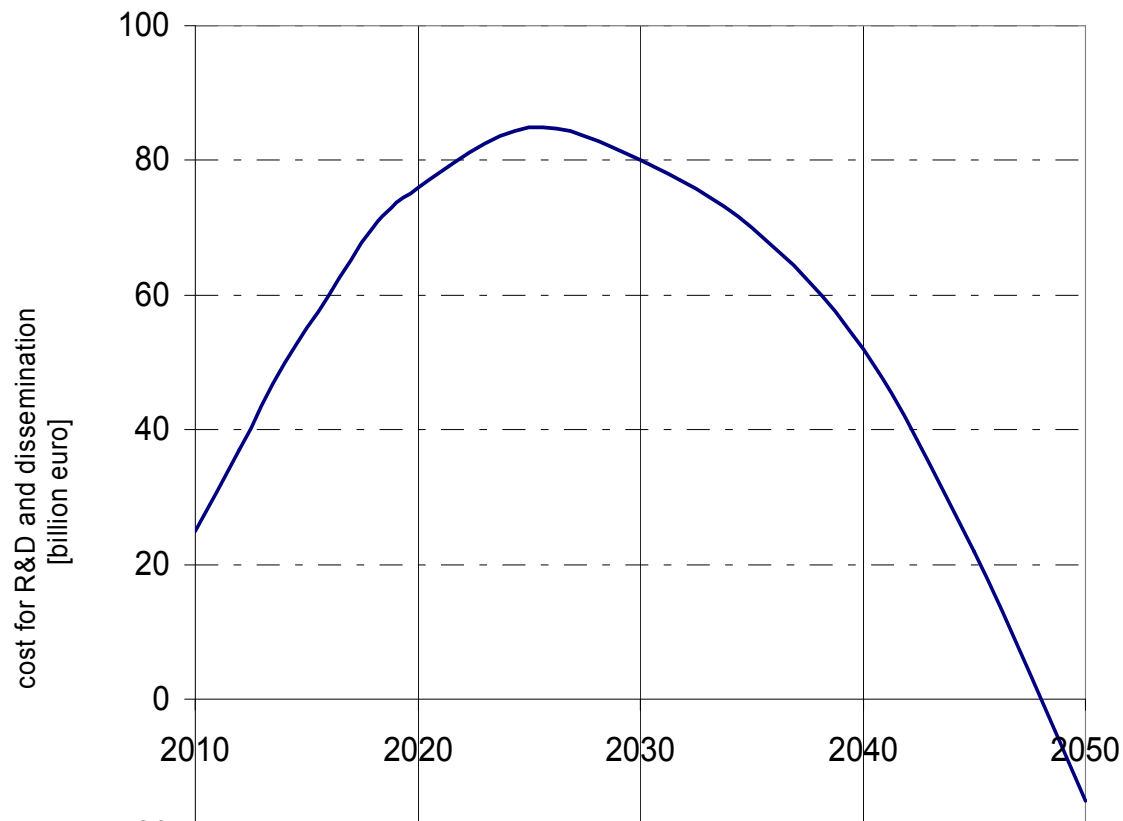
Financing the energy transition

B. Increasing market penetration over time



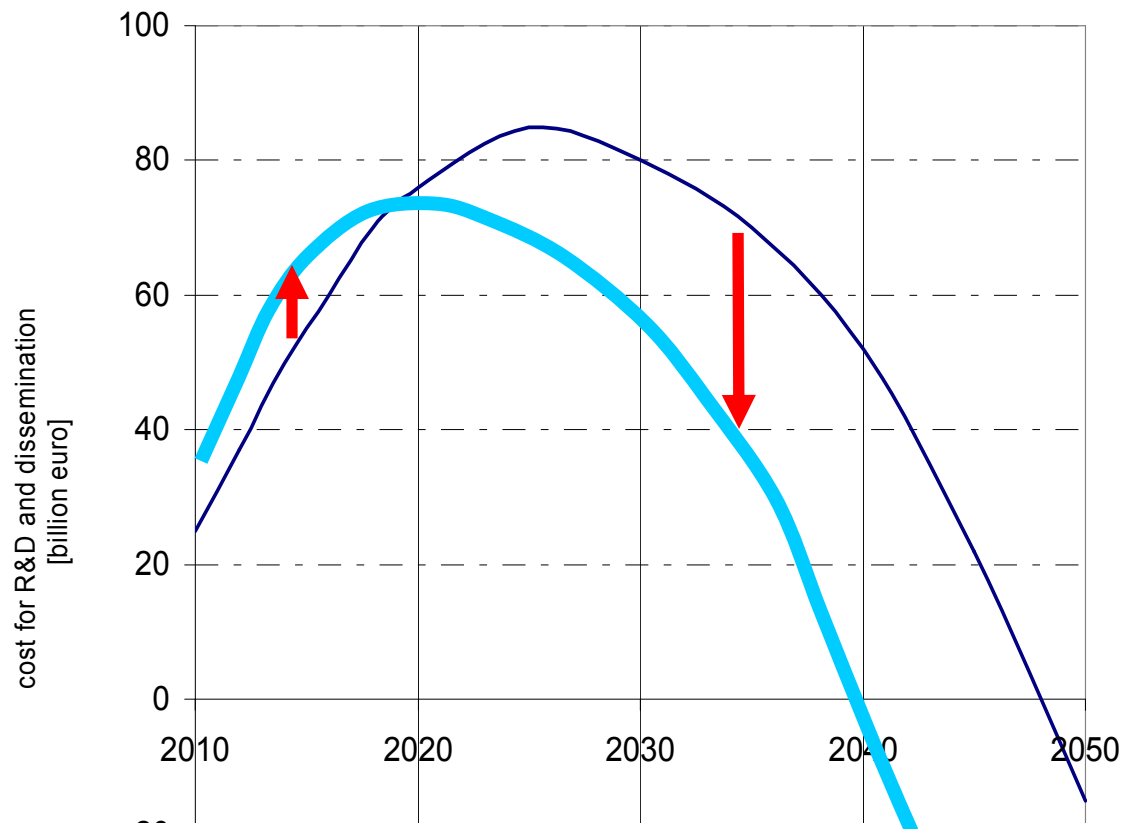
Financing the energy transition

C. Combining A and B: Annual spending is faced with a cost mountain



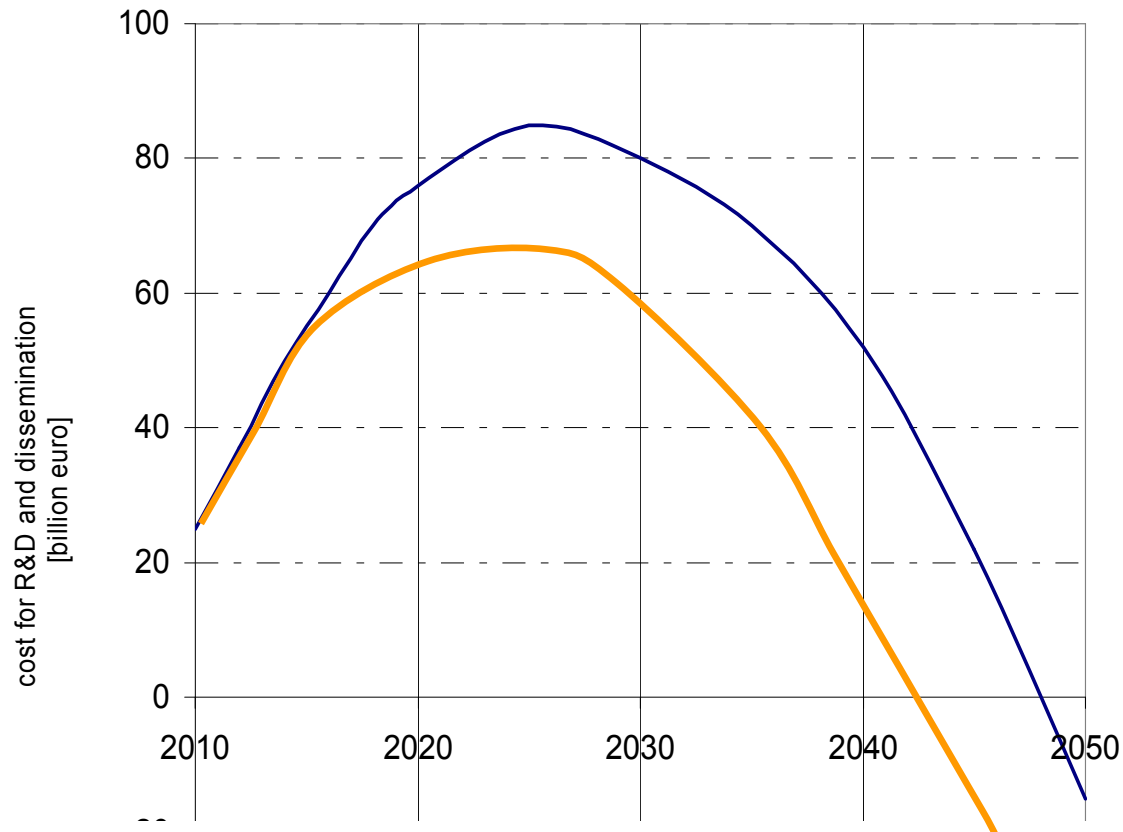
Financing the energy transition

D. More R&D leads to a steeper learning curve and reduced implementation cost



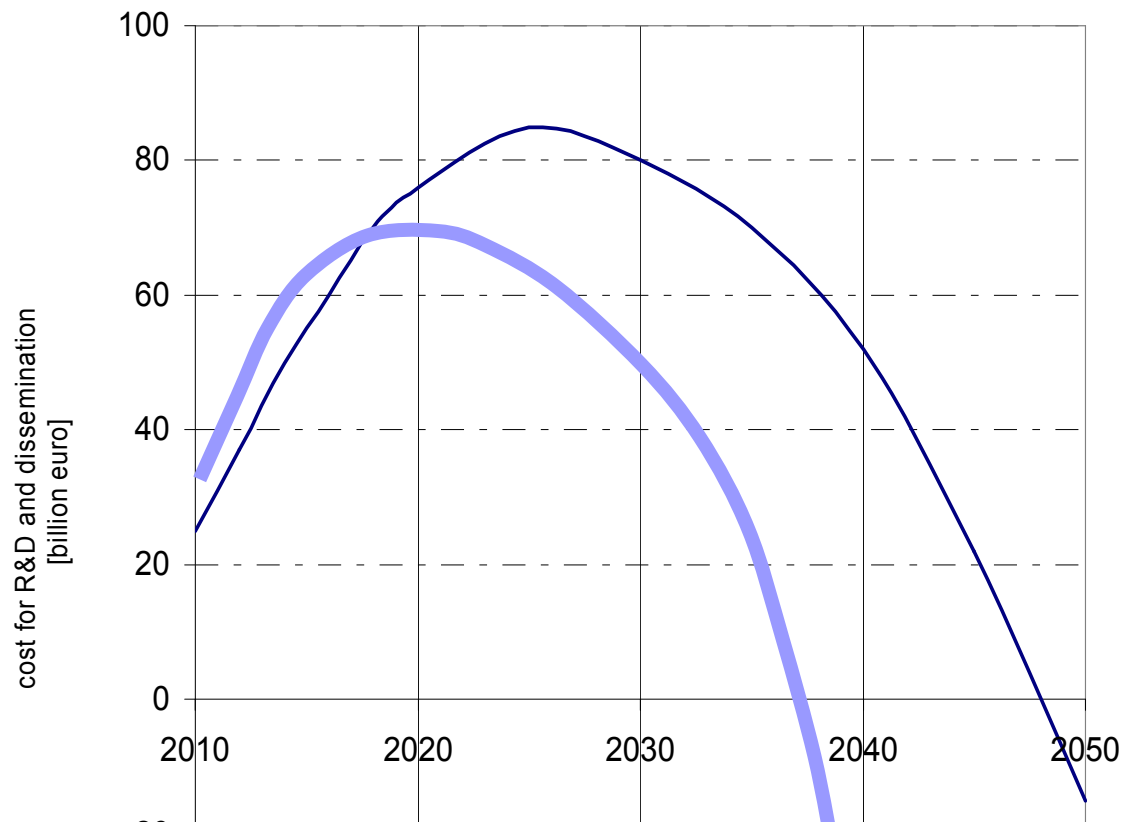
Financing the energy transition

E. The effect of cooperation in implementation of technology roadmaps



Financing the energy transition

F. The best combination: more R&D and cooperation in implementation of technology roadmaps



Key messages

- Benefits of a clean energy transition outweigh costs
- But: implementation costs are substantial and precede benefits
- Cumulative energy transition costs can be cut down by:
 - Increasing R&D efforts
 - International cooperation on R&D and deployment
- Right balance between R&D and deployment is crucial!
 - Market prospects need to be there to ensure private R&D investments
 - But: avoid overheated markets: learning effects need time to be incorporated in the production process
- Conclusion: we have to monitor and manage the balance between R&D and deployment

Key messages

- The benefits of a clean energy transition outweigh the costs
- The implementation costs are substantial and precede the benefits
- Cumulative energy transition costs can be cut down by:
 - Increasing R&D efforts
 - International cooperation on R&D and deployment

