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Learning curves and government deployment programmes challenge conventional economic wisdom

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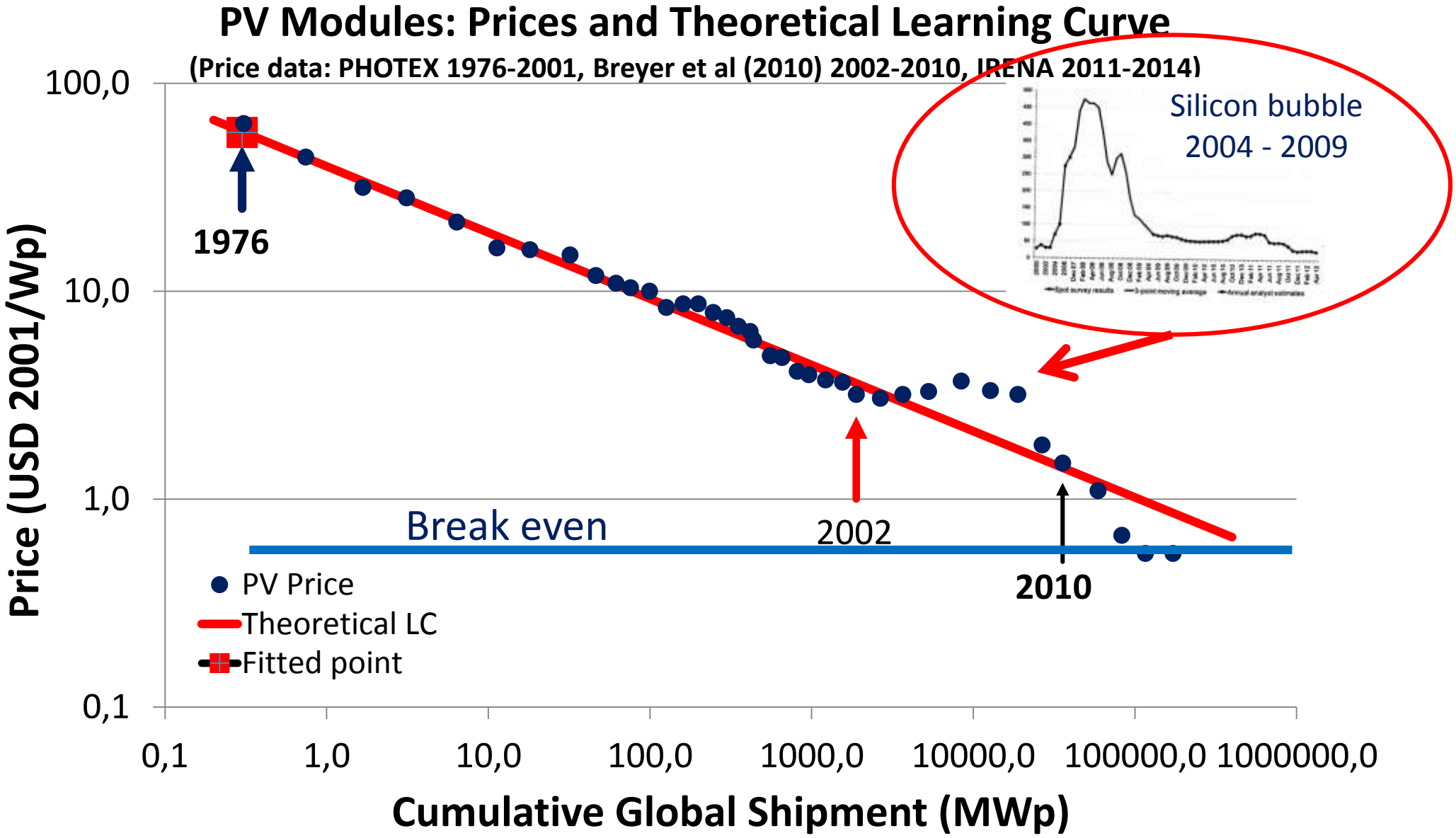
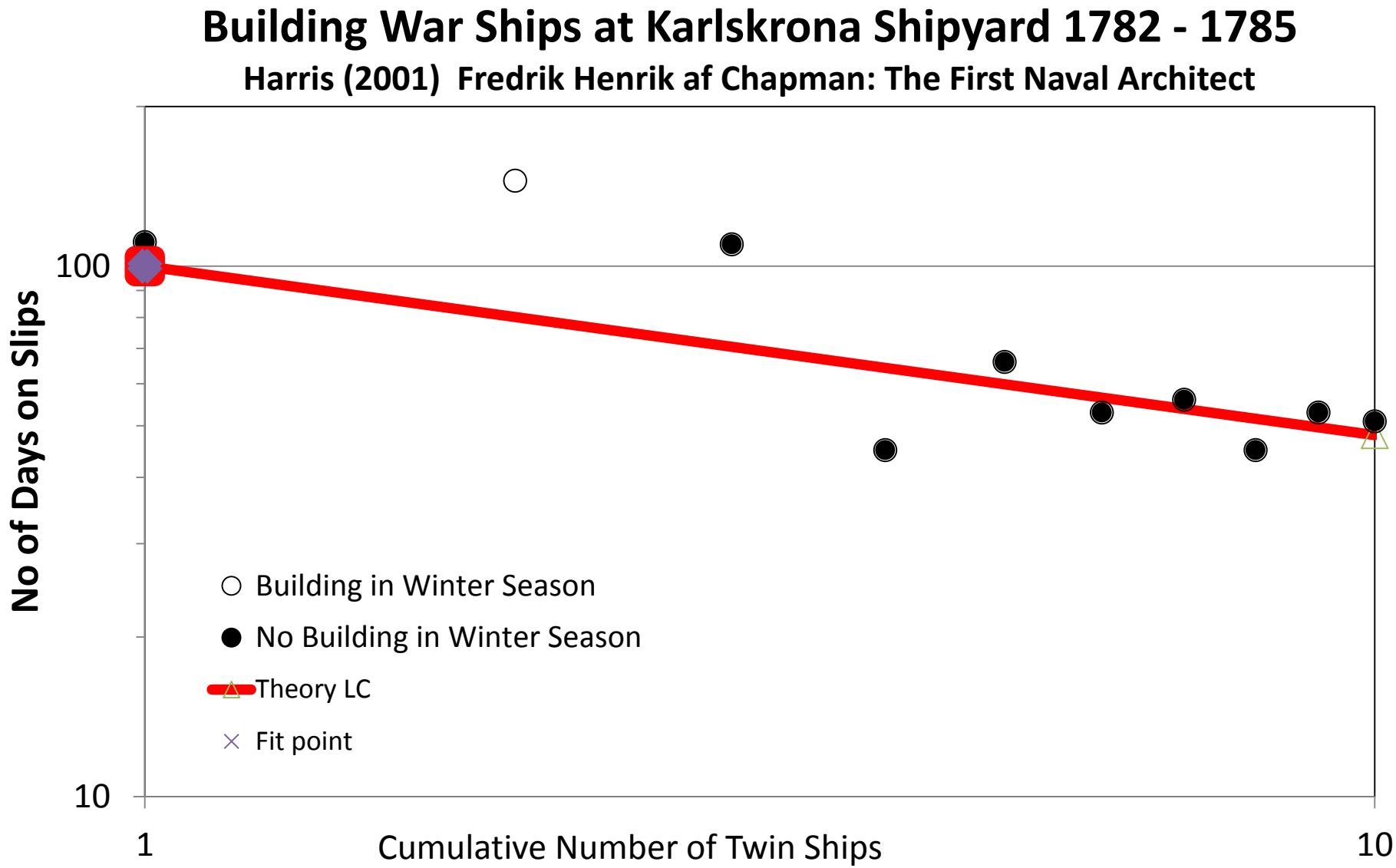
Learning Curves as game changers:
Gov't deployment programmes on par with R&D programmes

- Learning curves show cost and performance continuously improving as function of cumulative output ("act-to-learn")
- Learning curves **pervade** all competitive industrial activities and provide **efficiency** and **legitimacy** to government deployment programmes
- **Efficiency:** Improved theoretical understanding provide LC as reliable tools for designing programmes and analysing outcomes.
- **Legitimacy:** Lump-sum transfers will not start the required act-to-learn for emerging technologies (non-convexity). For technologies far from break-even the only actor with enough stamina and power is government
- **Heads-up:**
  - Define Learning System that has control of all its operations (operational closure)
  - National interests? Concerted action among governments?

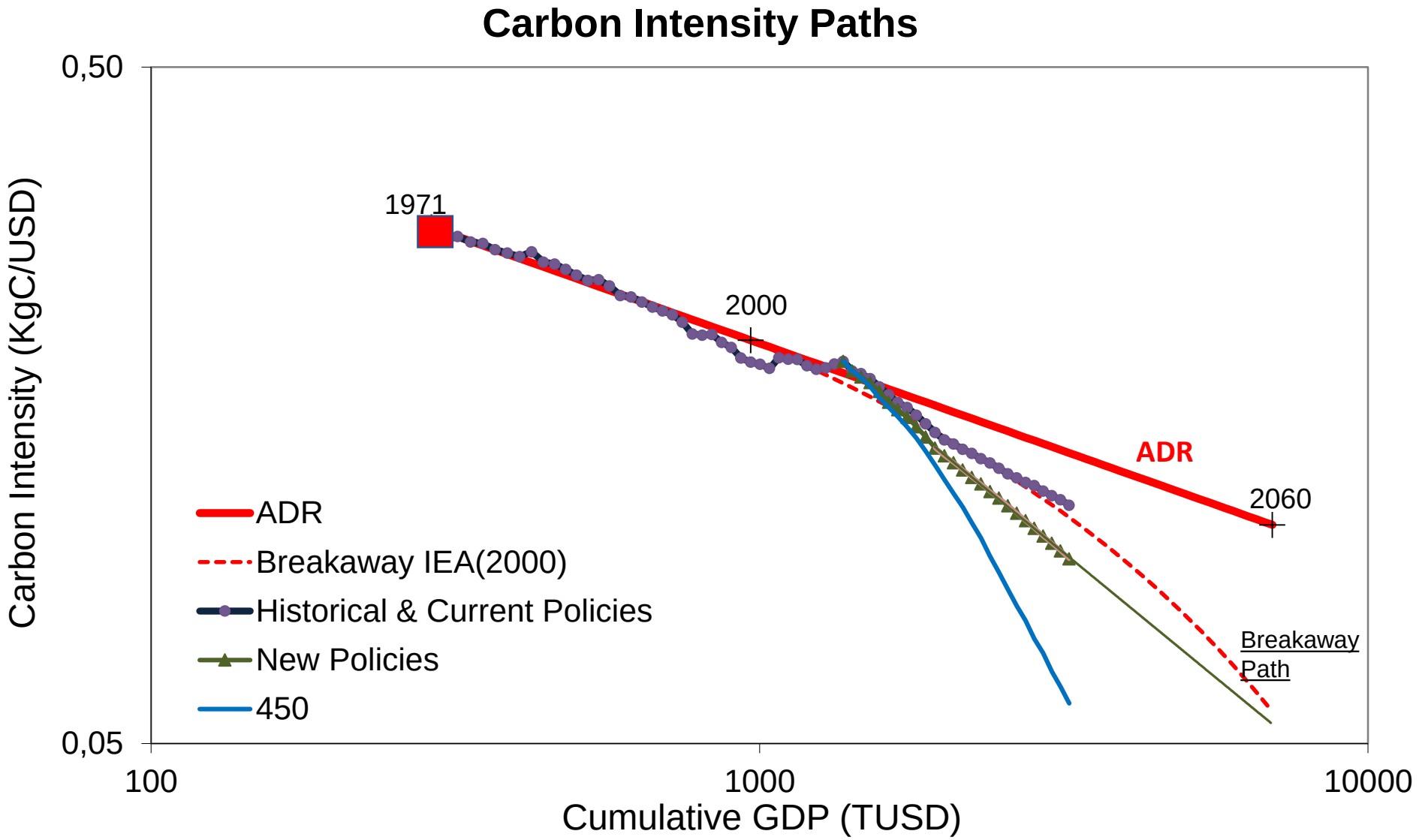
Stamina: Deployment programmes for PV modules during four decades



Pervasive 1: a 230 year old learning curve



Pervasive 2: Decarbonisation of industrial activities on global scale



Thank You !

More reading

Wene, C.-O, (2016), “Future energy system development depends on past learning opportunities” *WIREs Energy Environ* Vol 5:1, pp. 16–32, doi: 10.1002/wene.172.

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