

**Feed in or Certificates,
Complementarity or competition?
The industrial strategy challenge to
Europe**

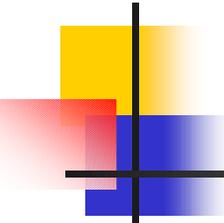
Atle Midttun and Kristian Gautesen

The Norwegian School of Management

Realise project

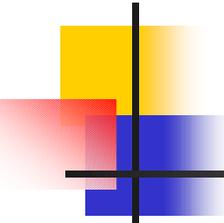
Presentation at the Realise project conference

Milano December 15th



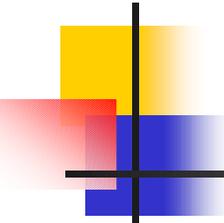
The Argument in a Nutshell

- Debate between proponents of feed in versus certificates
- The two approaches are often considered contradictory
- We argue that they could be complementary in a dynamic perspective of economic development



Two perspectives on the economy

- **Mainstream neoclassical approach:**
efficient allocation of economic resources between alternative deployment under given and scarce technologies and resources
- **Marx-Schumpeter model** of industrial dynamics: technological competition is a major form of competition: Innovations open up new business opportunities that secure growth and economic welfare



Two challenges to the firm

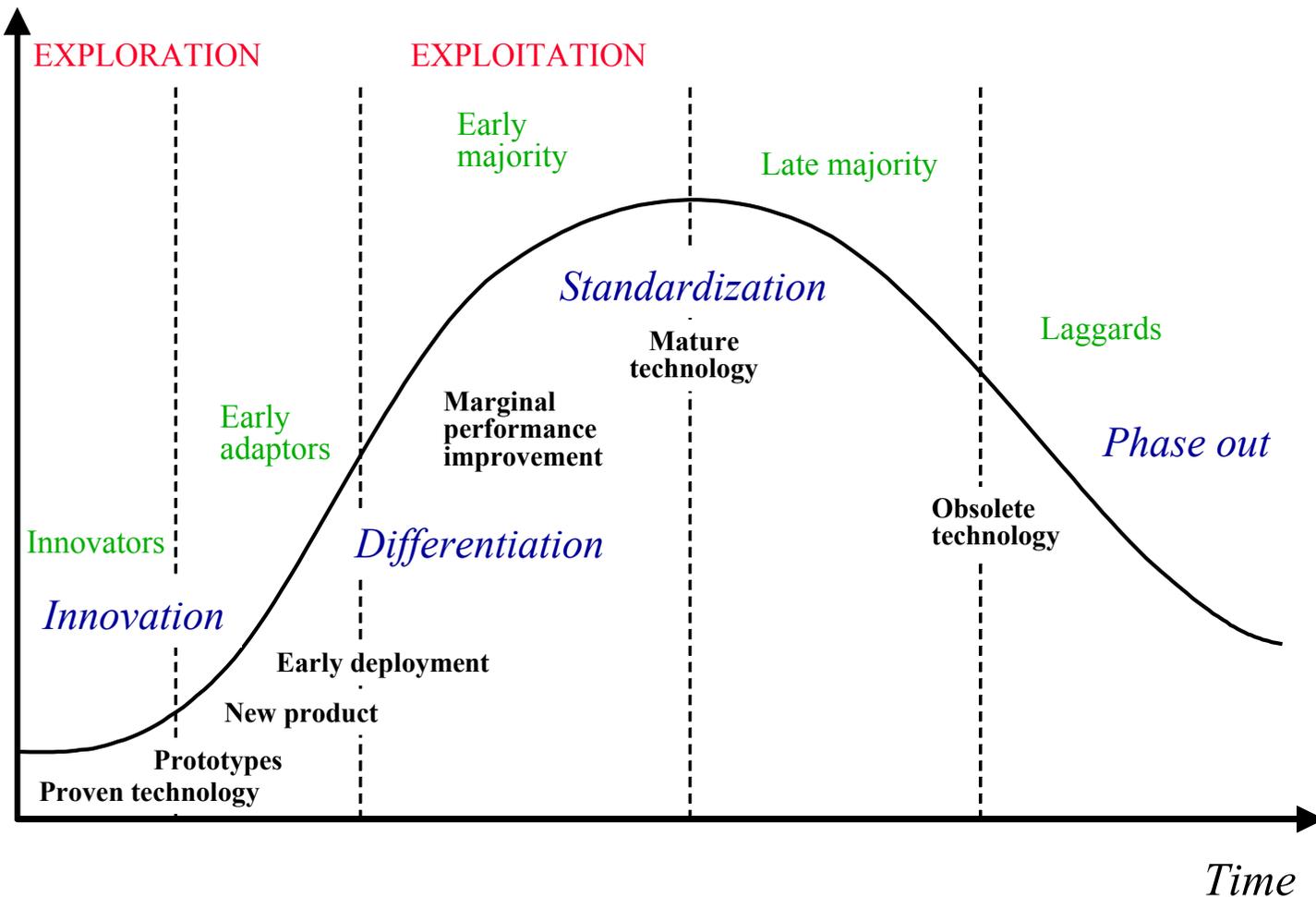
- **Lazonick:** The optimising firm and the innovating firm (streamlining business model vs entrepreneurship)
- **March:** Exploitation and exploration;

Towards a dynamic synthesis

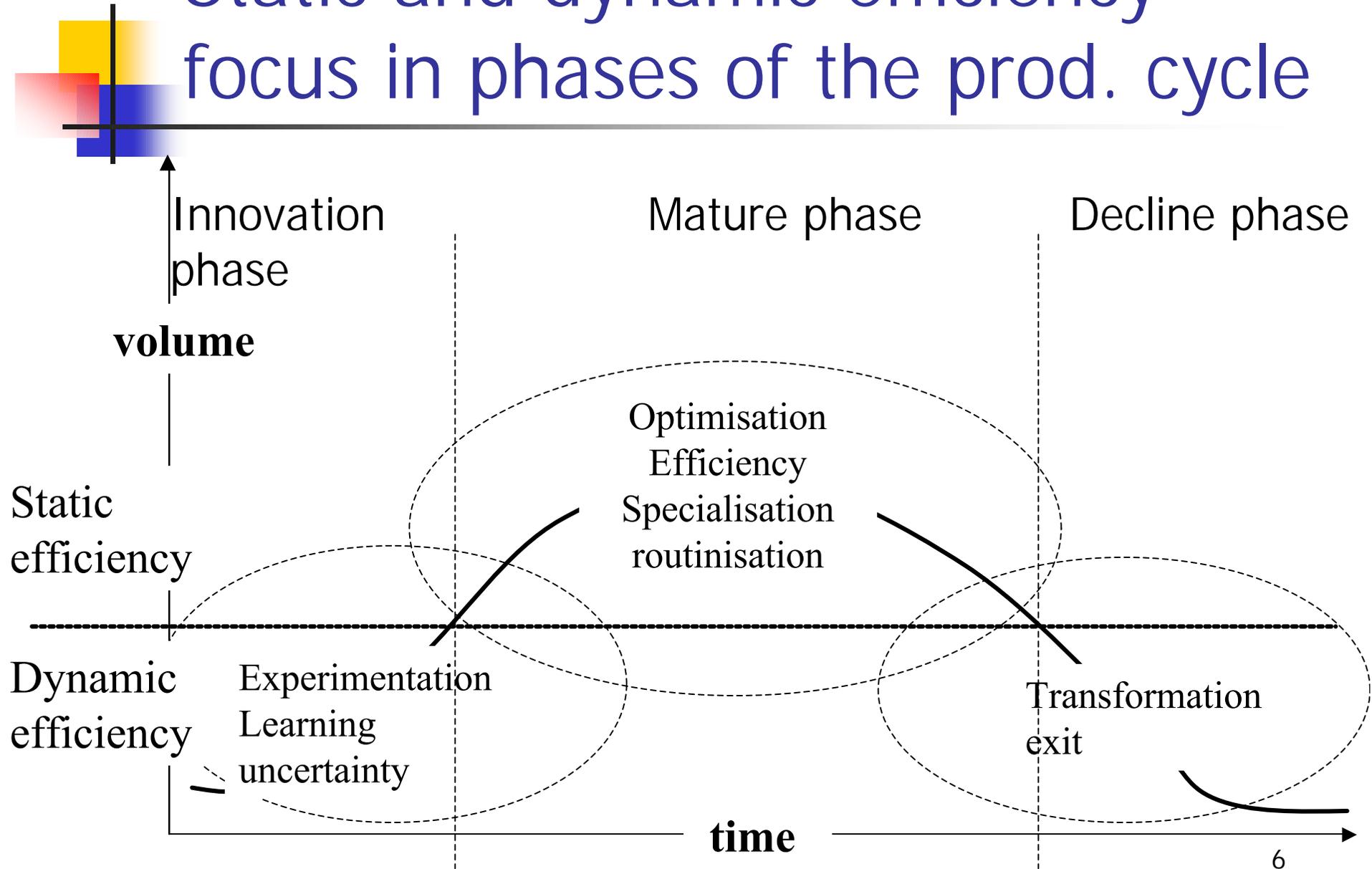
- **Both the static and dynamic perspectives are valid**
- **The firms have to live in both worlds**
- **This duality can be resolved in a dynamic analysis.**

The Product Cycle as a Point of Departure

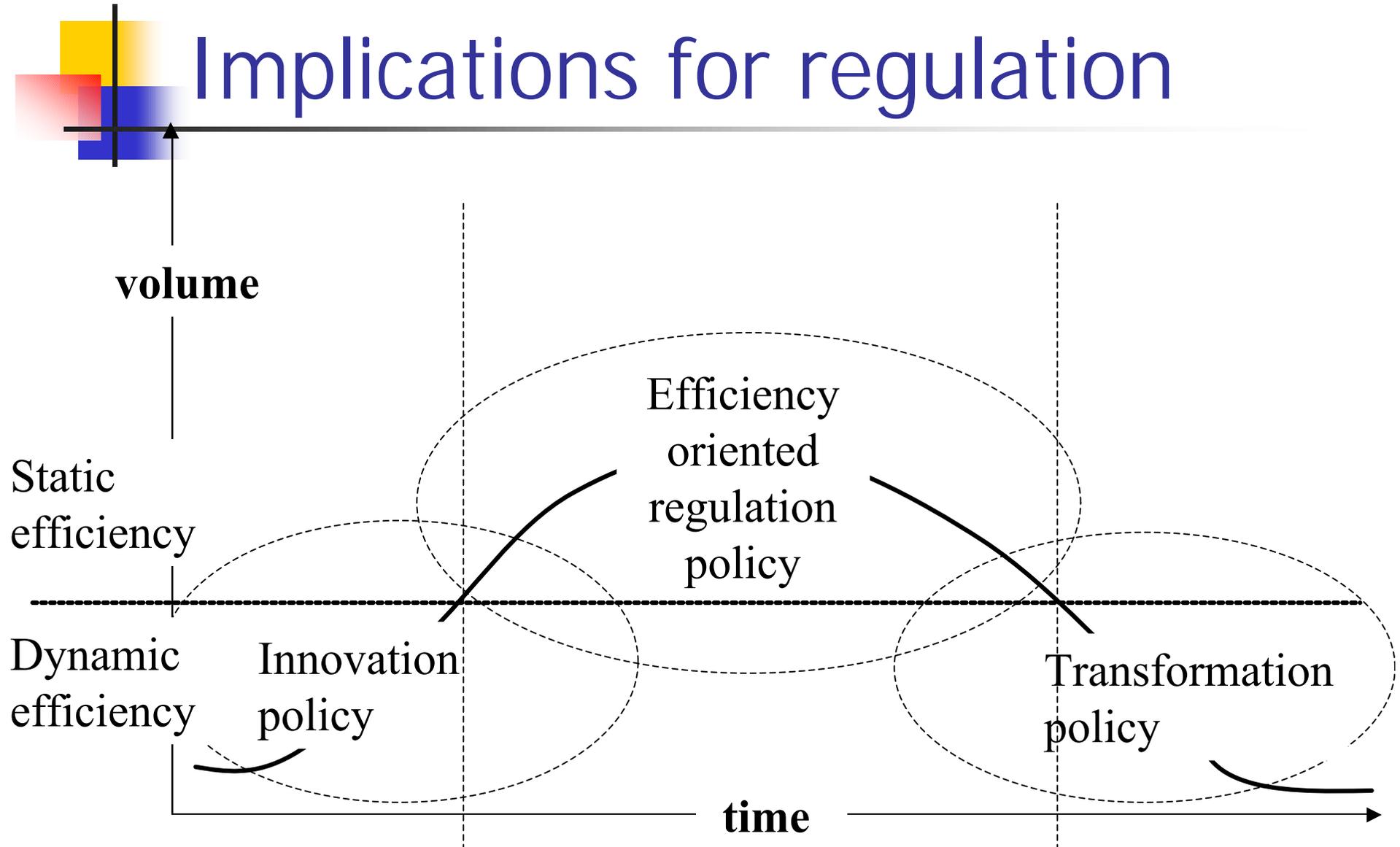
Volume



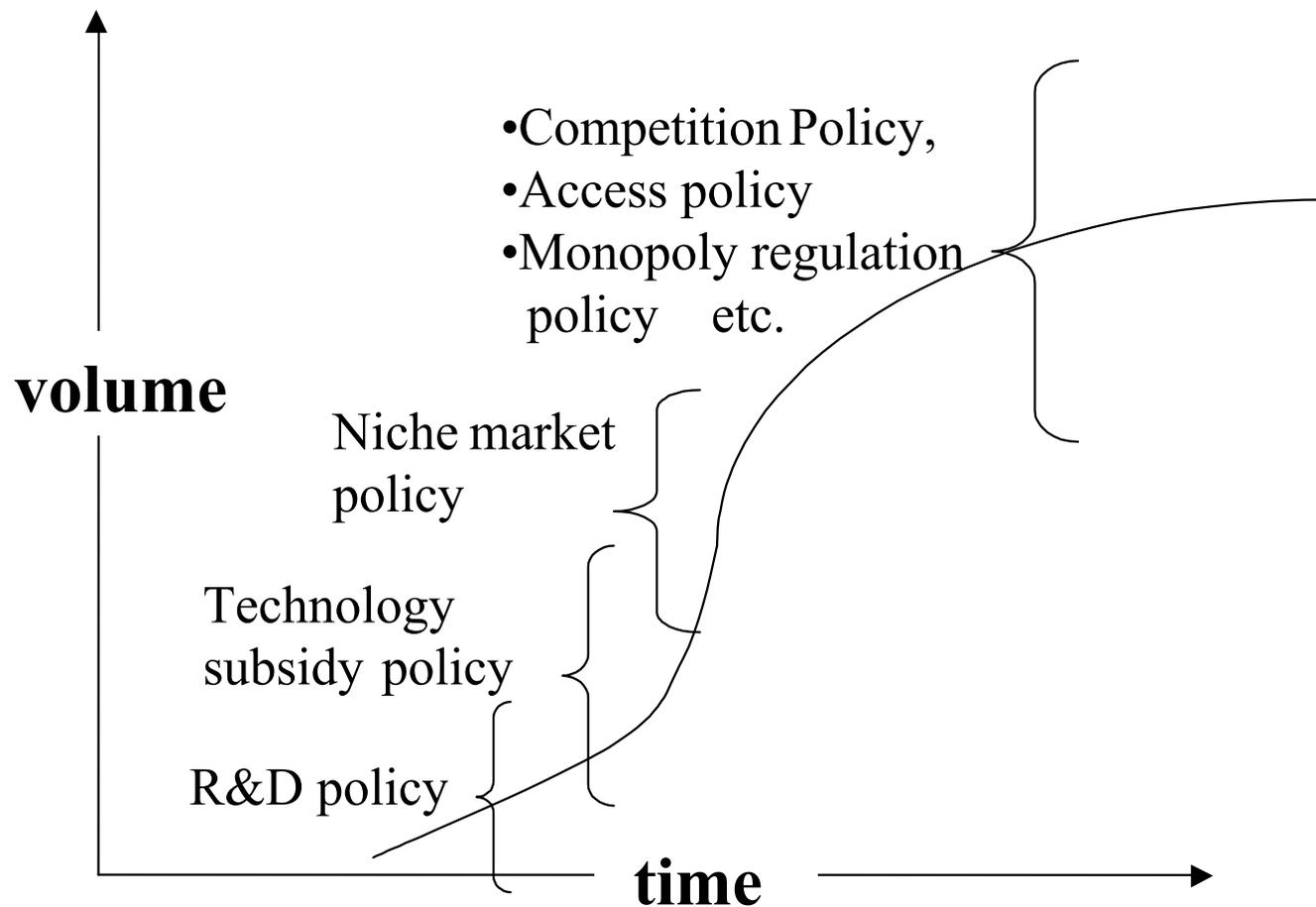
Static and dynamic efficiency focus in phases of the prod. cycle



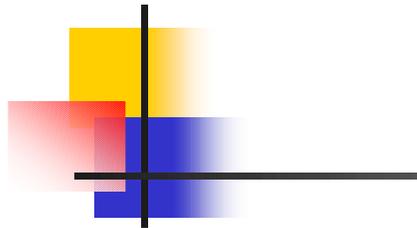
Implications for regulation



Sequential application of regulatory instruments



Feed in tariffs in Germany and Certificate prices in Sweden

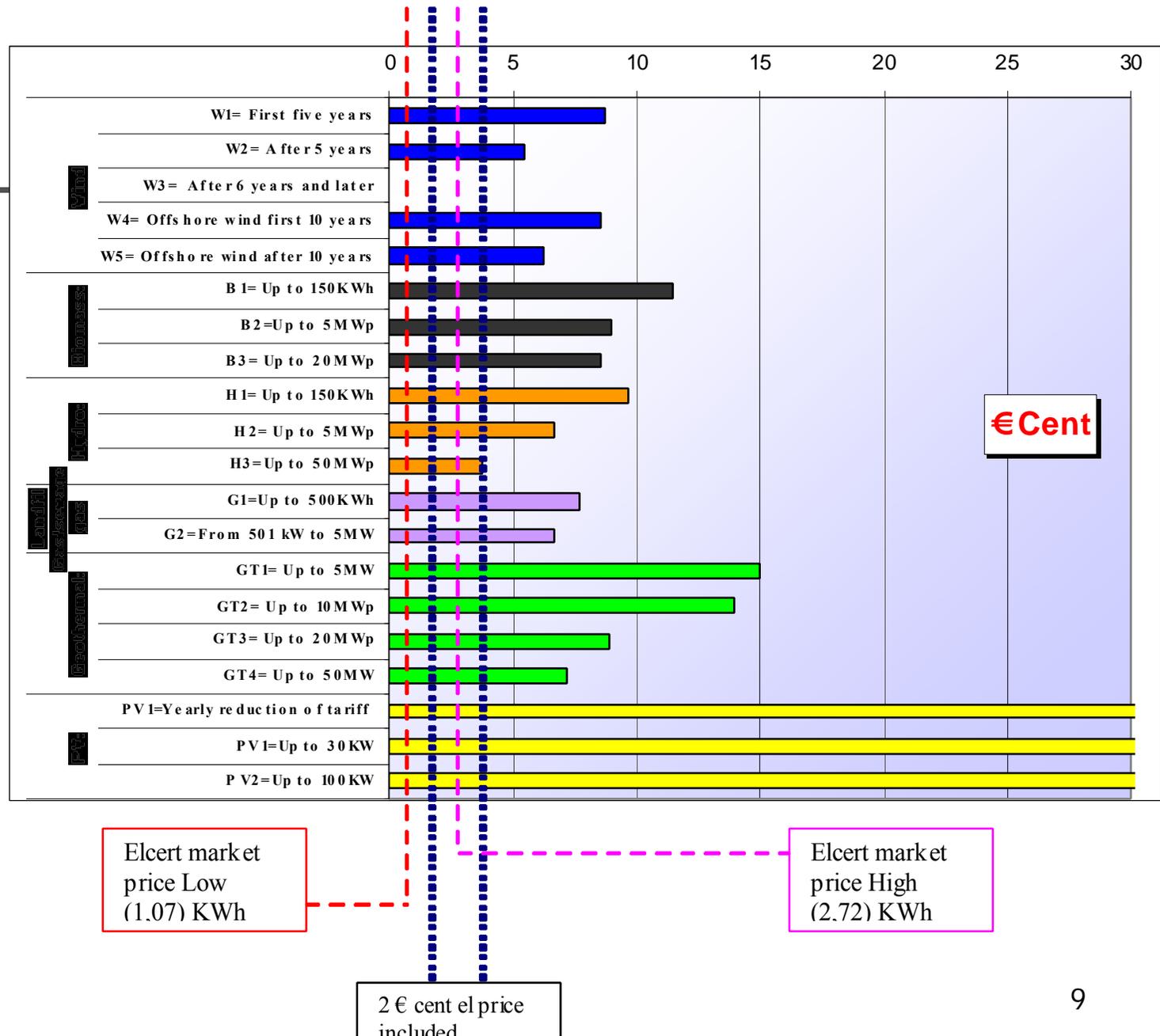


Feed in:

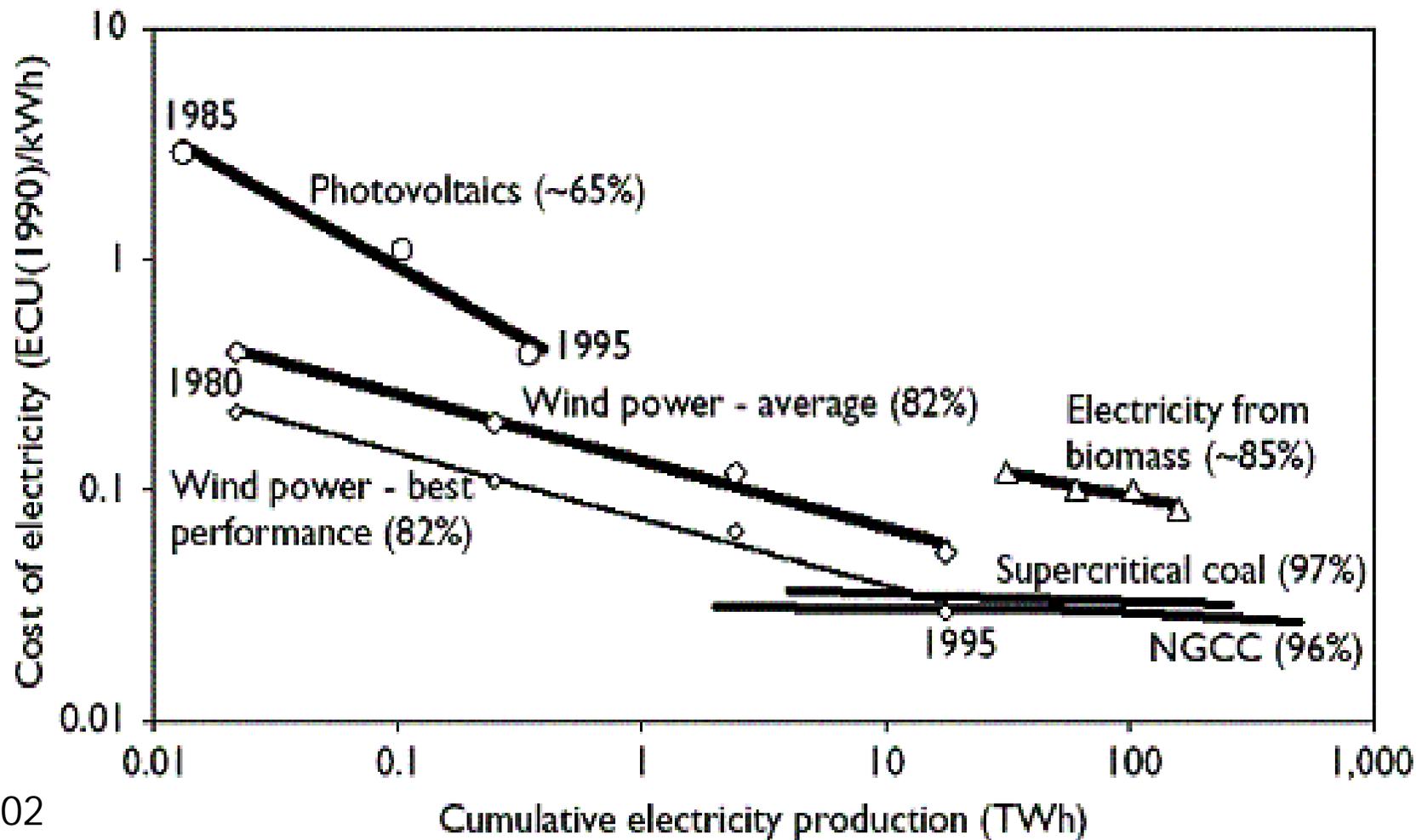
- Differentiation
- Stability?
- Strong boosting effect

Certificates:

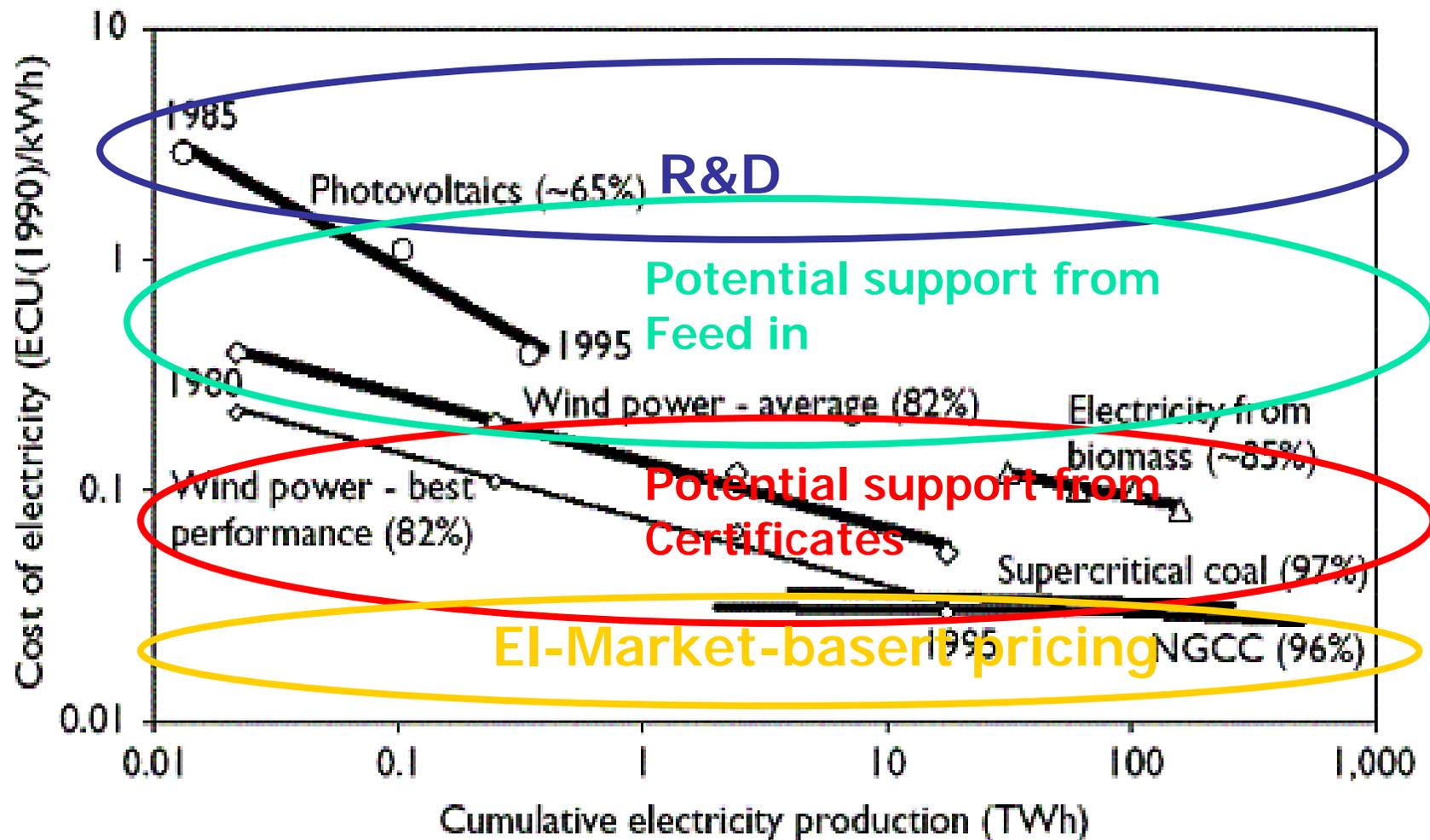
- Non-differentiated
- Low cost?
- Market exposed

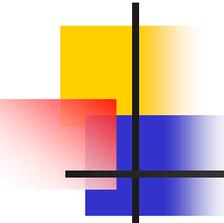


Support systems and Learning Curves



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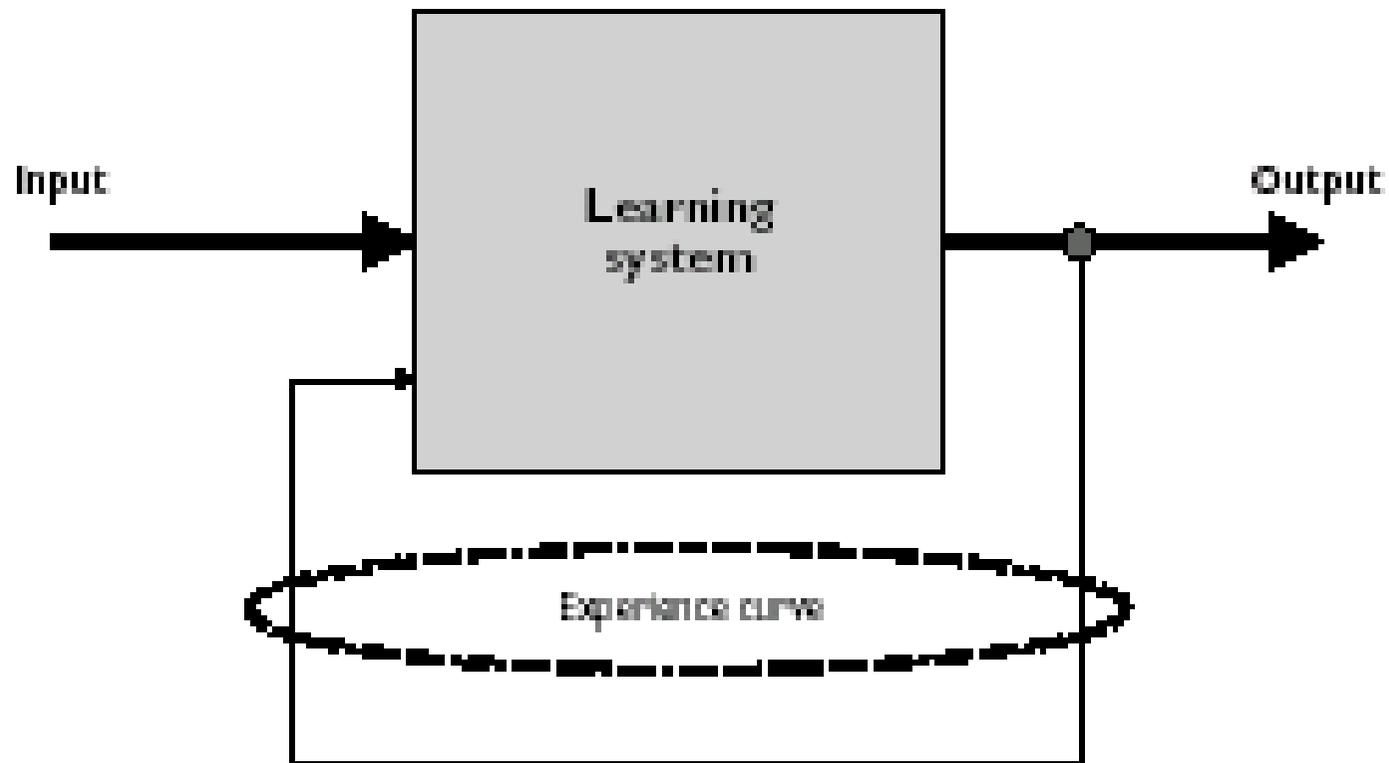




Two positions on industrial effects of regulation

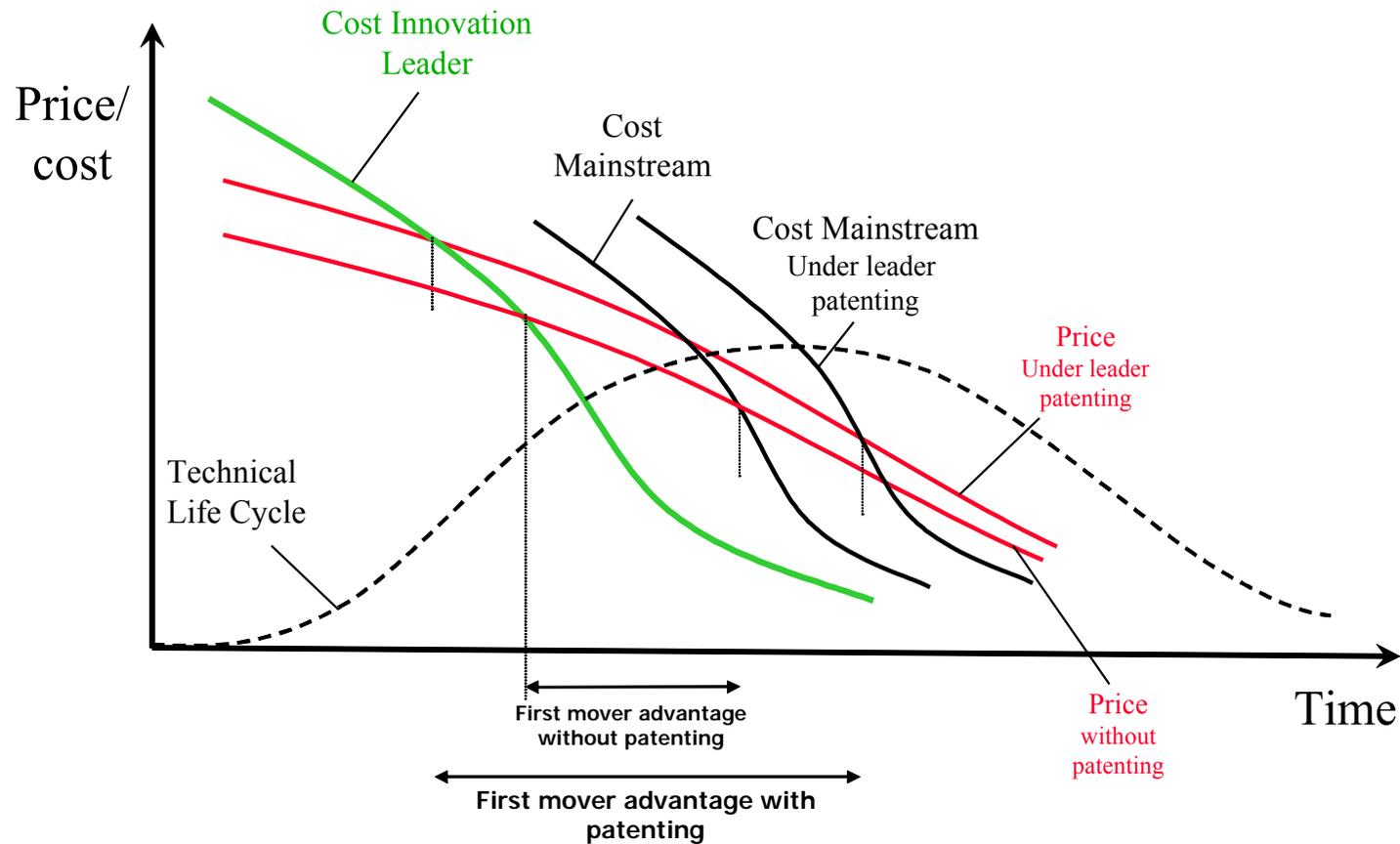
- **Conventional Wisdom**
 - Strict regulation -→ competitive handicap
- **The Porter & Van der Linde theorem**
 - Strict regulation -→ competitive advantage
 - Pioneering regulation → pioneering industrial performance
- With its advanced env. policy, Europe has betted on the 2nd position
- But will we reap the benefits?

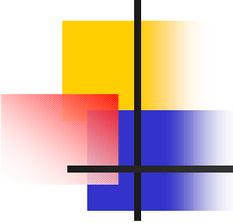
Learning curves (from IEA)



The experience curve is a measure of the efficiency of the feedback, or learning loop, for the system.

First mover advantage





Two European approaches

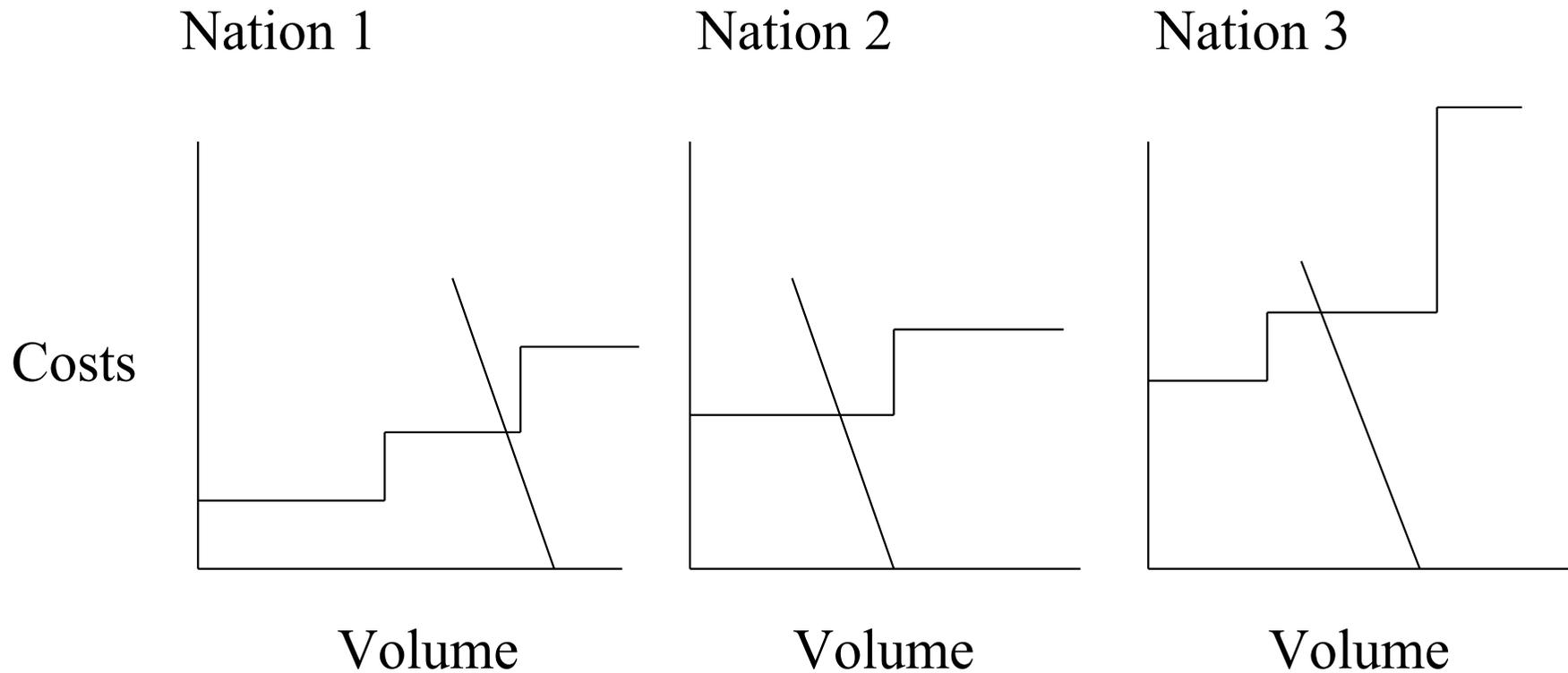
National market segmentation

- Segmented arenas for national technology development
- Pluralistic European industry development
- Securing “right” distributive effects

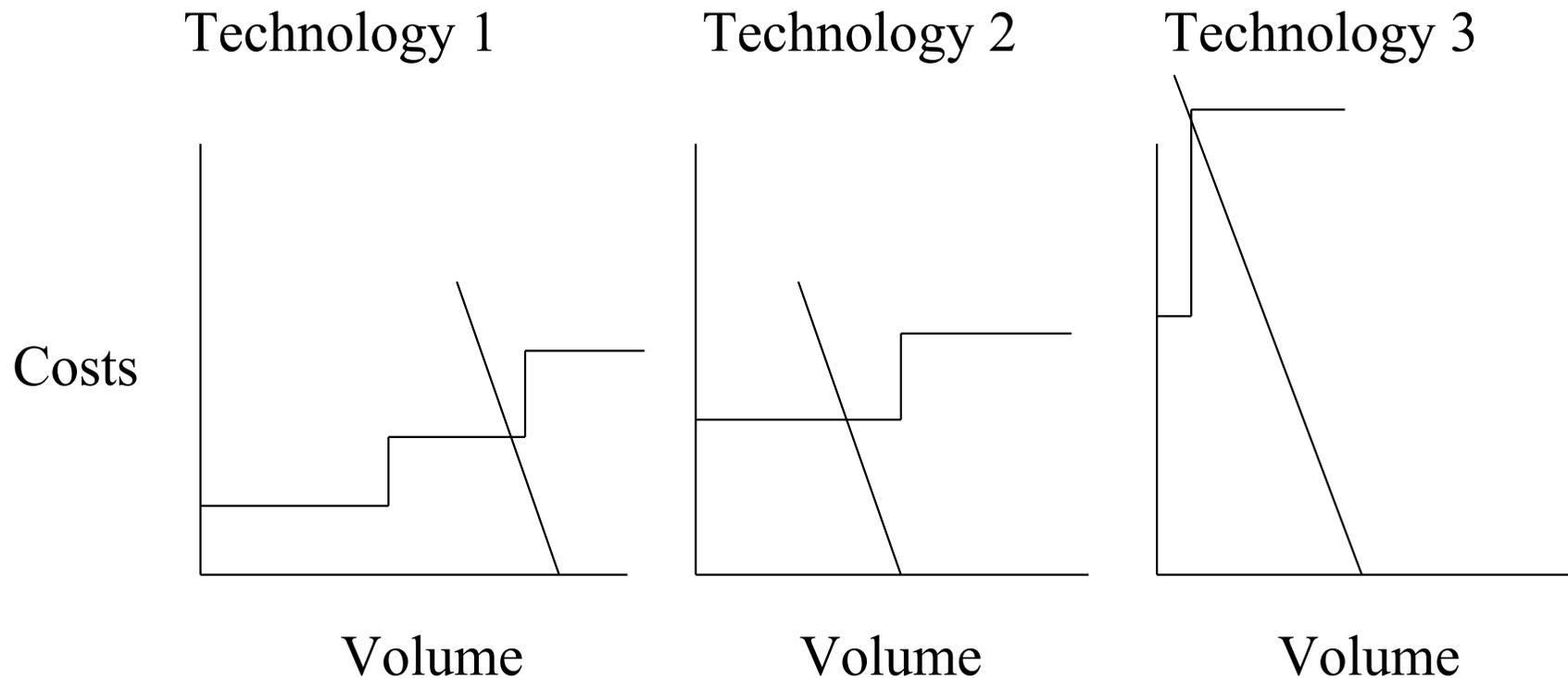
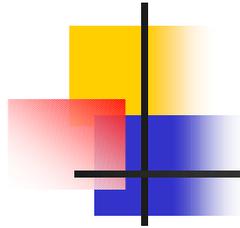
European scale and scope

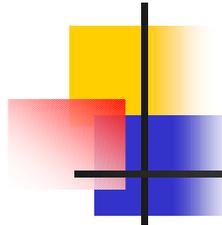
- Mainstreaming European best practice
- Building momentum towards global competition
- Advantages of optimal location & technology

An argument for Europeanisation: Ricardian trade advantages



An argument for Europeanisation: Possibility for Technology differentiation





Transformation

