



IIT ROORKEE



NPTEL ONLINE
CERTIFICATION COURSE

Innovation, Business Models and Entrepreneurship

Technological Innovation Management Planning

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Technology Evolution

- Revolutionary- Radical Technological innovations
- Micro Radical
- Generational
- Incremental



Revolutionary- Radical Technological innovations

- Major inventions leading to creation of a new industry.



Micro-Radical and Generational

- Build upon existing capabilities and are competence enhancing.

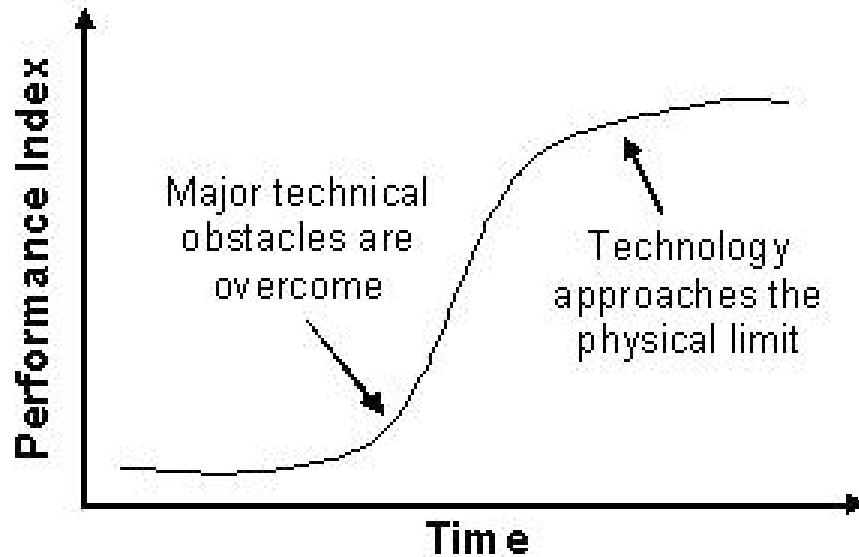


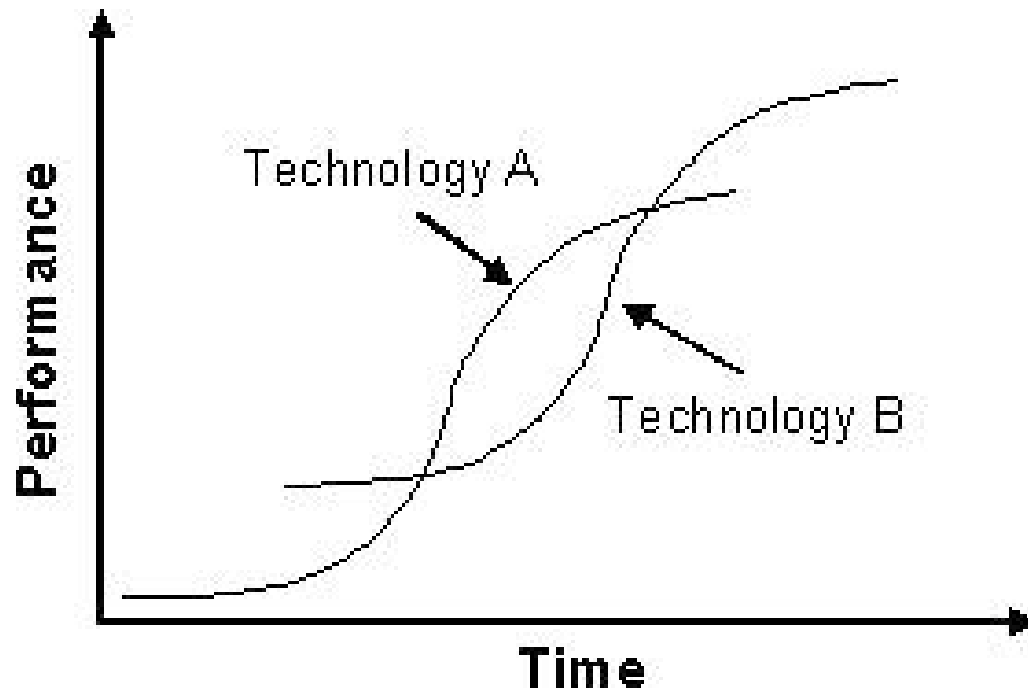
Incremental (Normal) Technological innovations

- Incremental performance improving
- Cost reducing



The “S” shaped curve of Technological Evolution





Technology Planning

- In 1st and 2nd generation companies, R & D is treated as an expense. The R&D function is largely left 'to do its own thing'.
- 3rd generation companies has an organizational culture in which R&D planning is embedded in corporate and business planning.



Technology Planning at Business and Corporate Levels

- 3M : Coating Material
- Canon : Microprocessor controlled optical imaging
- Honda : Engines and power trains
- NEC : VSLI and systems integration
- Dupont : Chemistry

SBU Technology Planning

- Superior Products



Technology Planning

- Forecast evolving technological possibilities and capabilities together with evolving market needs and opportunities.
- Disaggregate technology – market matrix into its component submatrices and to assess the firm's present and future competitive strengths in order to identify potential future technology- market synergies or options.
- Formulate a technological innovation mission or plan, based upon a selection from these options.

Thank You

