Indian Perspective on Technology Transfer and Commercialization

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Over View

- Historical Perspective – post independence
- Current Status
- Academe – Industry tie ups (Endogenous)
- Cross Border tie ups (Exogenous)
Overview (contd.)

- Major concern – Patent Protection
- Types of TTs
- Inter governmental TT – Nuclear Power
- Envisioning the Future
Historical Perspective

- The Glory Years – BC!!
- Post Independence

Palpable cultural change in dealing with others
Current Trends

- One way street to Two Way street

- Next major movement since BPO – KPO

- Council for Scientific and Industrial Research – CSIR
  To provide scientific and industrial R&D that maximizes the economic, environmental and societal benefits for the people of India.

- National Innovation Foundation
  In support of grassroots innovation
Endogenous TT

- Academic collaborations – Pan IIT
  - Incentivize collaboration
- Academe – Industry collaborations
  - Strength is S & T education
  - Emerging TNCs – Mittals, Tatas, Reliance help move beyond govt. sponsored research
- By Observations & Relying on the past
  - Kani tribe – “Jeevni”
Cross Border Tie Ups

- **Major Ones**
  - Pharma sector
    - Ranbaxy – GSK
    - Nicholas Pharma – Merck
    - Glenmark Pharma – Eli Lily
  - IT sector
    - IBM
    - Infosys
    - TCS
    - Wipro
Patent Protection

- Since WTO has become stronger
  - Move from Process patents to product patents
- Education of benefits – CSIR
- Enforcement
  - Registration system vs. Examination system
- Cultural Change is here
Types of TT

- Move away from hand me downs to current
- Move from just application to collaborative development and equity participation
- Generic to customized technology
- Export of technology – Tech Hub
Trends in the future

- TT through Tech Carriers – Reverse Brain drain
- Greater commercialization possibilities due to downstream industries
- Demographic dividend later this century
- Emphasis and focus on IT, Pharma, Bio technologies, chemical processes, eco friendly products, stem cell research.
- Academic Industry cross border tie ups