

# Industry- Academia Interaction and Incubation

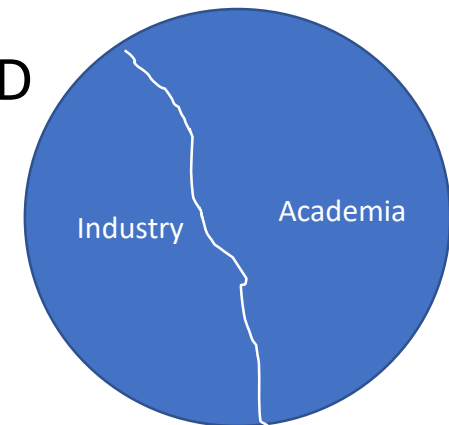
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# Independent India builds several high quality Educational S&T Institutions

- High Quality Institutions in India: IISC, IITs, ISERs ...
- Faculty came from the best institutions around the world
  - They are amongst **best** teachers
  - Their students **make a mark** all over the world
  - Focus on **basic R&D**: significantly enhanced over the years
- But **minimal** Impact on industry in early days
  - **Little** Translation of R&D: Industry continued to import most technologies
  - Impact on industry therefore limited to getting trained manpower
    - More for manufacturing and management and less for R&D

# Translating R&D to Commerce

- Started with a situation
  - **Academia** belief: Industry is not interested in R&D - they only want to import
  - **Industry** belief: Academic R&D is all about publishing – no products possible
- Breaking this stalemate
  - Academia with a vision to make a difference: need to **sell the vision** to top management -- not through Industry R&D
  - Have to have commitment to work with industry to do **whatever** required to get the product to market
    - Fully complement each other
    - Requires regular formal-informal interaction



# Technology Translation Mechanism

- Licensing technology to **established companies**
  - Technology would rarely be fully ready
  - Would often require efforts to convert into a product: manufacturable, 24 x 7, acceptable to customers, make money
- Through **an incubated company**
  - New type of product: disrupt existing products
  - When established company would not be ready **to take risk** and create market

# Is there enough funding for start-up?

- Developing Technology which takes long time, larger funding and carry high risk
  - Carry it out in R&D lab of academic institution with Government / public / CSR funding
    - Till it reaches a stage, where it is ready to be commercialised
  - Only at this stage carry out technology transfer or incubate a company
    - Entrepreneurs could work in R&D Lab from the beginning, with an understanding that they would do a start-up at right time



IITMRP is at their  
Heart of Innovation

# Innovation thrives

- When three set of people get-together in an informal / formal setting
  - Faculty member with WIDE knowledge
  - Industry person who know how to manufacture and sell a product
  - And a youngster, who **does not** know that **“it can not be done”**
- IITM sets up a Research Park, adjacent to IITM, and invites industry to set-up their R&D at the Park



# IIT Madras Research Park

- 1.2 million sq ft + 250K parking lot
  - Total Spent: ₹500 Crores: ₹107 Crore Gov / alumni grant plus bank-loan of ₹380 Crores
    - ₹350 Crores loan cleared
  - Makes **₹30 Crore cash-profit** every year
  - Houses R&D for 85 companies
- IITMRP is home for IITM Incubator Cell



\$1 = ₹70

# IITM Incubation Cell

- plus Rural Technology Business Incubator (RTBI), Medtech Incubator and Biotech Incubator
  - latter two BIRAC funded
- **200 incubated** companies
  - Focus on deep-tech companies
- Current value exceeds **₹6000 Crores**
- Incubator value over ₹600 Crores

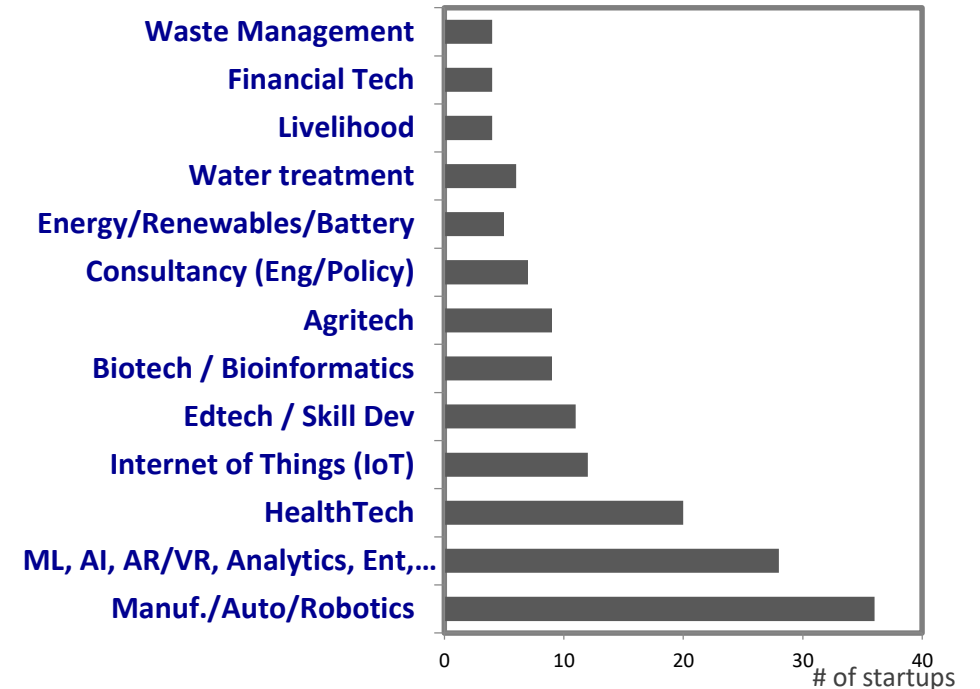


Innovation is a culture  
at IITMRP

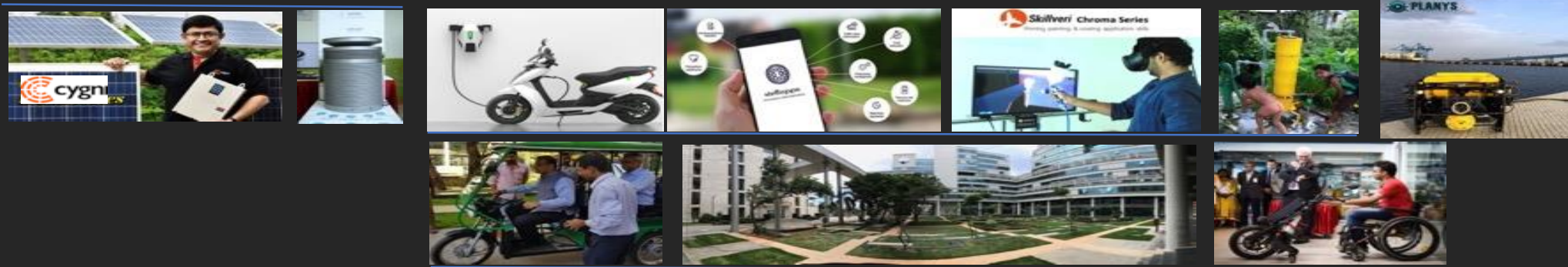


# Deep-tech Incubator

- In every engineering discipline
- Won almost all national Entrepreneurship Awards



## India's leading deep-tech startup hub



Empowering Innovation & Deep Tech driven Entrepreneurship to address national challenges through successful, self-sustaining companies that are redefining markets

# What does it do?

- Mentorship
- Start-up progress and Review
- Seed Funding and Loans
- Space, Infra plus Workshop



# What does it not do?

- No Easy Funding
  - Even for seed funding of ₹5 lakhs, the incubator presents to a **high-powered external committee** headed by R Ramaraj, former head (Sequoia Capital)
- Later funding as loans up to ₹40 lakhs
- Driving company till ready for Angel funding

