



Pilot Study Project on the
University / Public /Private Funded
Research Organizations
Interactions:
A New Era for
S&T Entrepreneurship”



Presented by:
Natural Resources India
Foundation (NRIF)

Outline of Presentation

- ✦ **Broad Issues being Covered:**
- ✦ **Methodological Approach:**
- ✦ **University Industry Science Partnership & Overview of Industry R&D In India**
- ✦ **Type of Interactions in the selected institutes & primary data analysis reports**
- ✦ **Secondary sources data interpretation**
- ✦ **Selected Success Examples of interaction & Entrepreneurships**
- ✦ **Observations, suggestions & recommendations**



**Observations, Suggestions
&
Recommendations**

Universities provides Technology Transfer

- ✳ People (faculty, graduates, postgraduates and, PhDs);
- ✳ Publications;
- ✳ Consulting;
- ✳ Research Partnerships;
- ✳ Licensing of intellectual property-for small Vs large companies;
- ✳ Startup companies;
- ✳ Etc.

Industry provides:

- ✳ Access to world class and important problems;**
- ✳ Research finding at the margin;**
- ✳ Access to other activities of the innovation cycle (development, planning, engineering, products, manufacturing.....)**
- ✳ Access to different cultural thinking;**
- ✳ Ways of synthesizing knowledge**

Barriers to Partnerships & Progress:

- ✦ Intellectual property issues;**
- ✦ Barriers within university: Internal rewards systems fear of contamination;**
- ✦ Barriers within industry: Fear of loss of control, not-invented syndromes...**
- ✦ Mismatch of motives: conceptual Vs incremental advances;**
- ✦ Lack of appreciation of values of diverse ways of thinking;**
- ✦ Bridge the valley of have-nots / death;**
- ✦ Control, control, control on every side...**

Message to Academicians/ Scientists

- ✦ Explore the possibility of partnerships / interface with the local industries;
- ✦ Address problem driven / curiosity driven research;
- ✦ Address tough rather than handy problems;
- ✦ Future vision / blue print is necessary;
- ✦ Set time-bound priorities;
- ✦ Time & costs matter a lot;
- ✦ Accountability is a must;
- ✦ Communicate knowledge and not just information

Message to Industries

- ✦ **Fundamental research does not grow on trees in wild;**
- ✦ **Support and nourish who produce results;**
- ✦ **Build partnerships with fundamental researcher performers;**
- ✦ **Vision the future of company, industry, people driven and the society;**
- ✦ **Contribute visibly to the economic growth of the nation;**
- ✦ **Look for near term advantage Vs long term growth with continued growth of regulations;**
- ✦ **Range the time horizons;**

Message to Government

- ✦ Govts. needs to encourage & promote the flow of new scientific knowledge / innovations and development of scientific talent in our young researchers;
- ✦ Convergence norms for Govt., University (basic research) and industry (applied R&D);
- ✦ Synergy of coherent policies as regulations have benefits as well as costs;
- ✦ All laws have unanticipated consequences;
- ✦ Patent systems be simplified;
- ✦ Policy norms be developed for commercialization, agencification and privatization



*Thanks for your patient
hearing*