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WORKING PANEL #5

STRATEGIC DIRECTIONS and MECHANISMS
in TECH TRANSFER

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MEASURING SUCCESS

"Effectiveness Measures" vs. "Activity Measures"

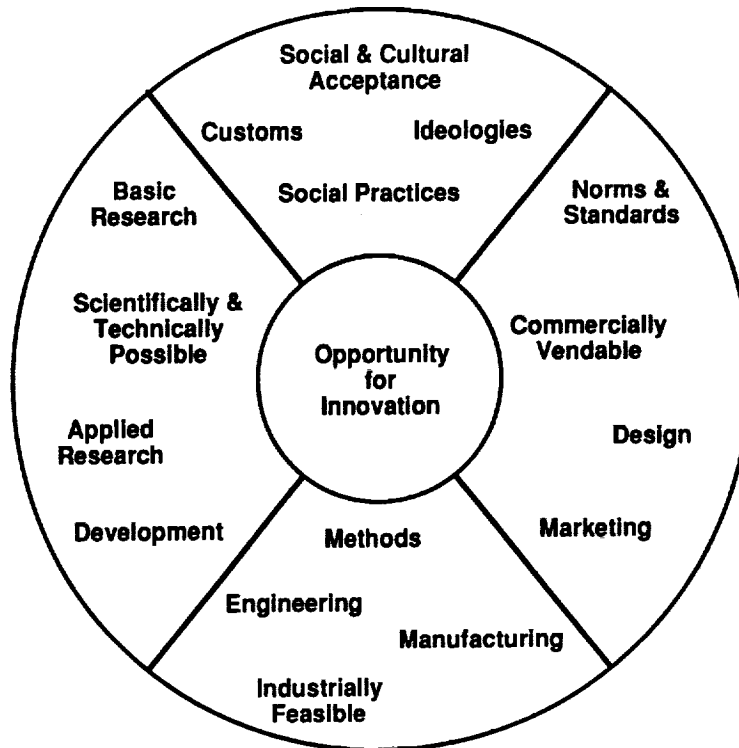
1. Impact on National Economy
 2. Reducing Cost of Government Operations
 3. Jobs and Quality of Life
 - Wealth, \$'s
 4. Short Term
 - Measures of activity at labs
- Mid Term
- Quantitative and qualitative measures, i.e. follow-up licenses at companies
- Long Term
- Quantitative economic and other national level measures

Recommendation

Effective Measures must be Determined and Publicized

Note: Success measures must be built into each Technology Transfer Plan/Program from the start.

EFFECTIVE MANAGEMENT OF TECHNOLOGY REQUIRES A COMPREHENSIVE, BALANCED STRATEGY



INNOVATION AND EXPERIMENTATION IN THE TECHNOLOGY TRANSFER PROCESS

- Each agency should have a conscious program to promote innovation and risk-taking in the Technology Transfer process.
- Method of funding small pilot experiments in technology transfer:
Build in evaluation methods
- Example: Sabbaticals to industry
- DOE has asked OMB to create "idea notebooks" for automotive industry as a follow-on to the GM "garage-show."

INTEGRATION OF TECHNOLOGY TRANSFER IN R&D PLANNING

1. **A comprehensive list of action items should be included in the planning at the earliest possible opportunity.**
 - Strategic Planning
 - Management
 - Technology Transfer
 - Education
 - Training
 - Human Resources
 - R&D
 - Commercialization
 - Marketing
 - Manufacturing
 - Capital Services
2. **This applies to both internal and external technology transfer.**
3. **Involve users, both internal and external.**
 - **Define user roles and technology transfer mechanisms for each stage of R&D.**

INSTITUTIONALIZATION

1. **Human Factors**
 - **Personal mobility be improved/simplified.**
 - **Industrial sabbatical be supported.**
 - **Personnel involved in technology transfer process be rewarded. Create special rewards.**
 - **Reward people for participating in personnel/exchange programs with industry.**
2. **Culture change**
 - **Include technology transfer in the top senior management performance evaluation.**
 - **Technology transfer must be an explicit goal of each center/lab/program/institution.**
 - **Promote entrepreneurial values.**
 - **Active interaction with industry**
 - **Encourage collaborative R&D with industry**
 - **Simplify "red-tape"**
 - **Promote client/customer service orientation.**

INSTITUTIONALIZATION (cont.)

3. Efficiency

- **Examine technology transfer mechanisms for efficiency**
- **Implement cost-effective processes**
- **Encourage risk-taking, innovation**
- **Explore new technology transfer processes to gain efficiencies**
- **Training to improve skills of technology transfer professionals**
- **Expedite patenting process**

POLICY/LEGISLATIVE/RESOURCES

- 1. Intellectual Property**
 - **Expedite patent filing process in U.S. and foreign countries**
- 2. Government should adopt commercial practices in its procurement process**
- 3. Put sunset clause in each technology "classification"**
- 4. Discuss making technology transfer a mission of NASA**
 - **Establish that a percentage of lab work hours be allocated to technology transfer**
- 5. Provide increased funding to cover higher patent filing fees**
- 6. Create a statement within Presidential technology transfer policy on guidelines for funding technology transfer delivery activities**