STRATEGIC DIRECTIONS and MECHANISMS in TECH TRANSFER

Dr. ROBERT MACKIN

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
   - R&D
   - Management
   - Commercialization
   - Technology Transfer
   - Marketing
   - Education
   - Manufacturing
   - Training
   - Capital Services
   - Human Resources

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.
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