Essential Elements of Effective University Government and Industry Research Partnerships

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by
John Owens
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Overview

- Federal Programs
  - Industry, University, Government Partnerships
  - Industry/University Cooperative Research Centers (IUCRC)
  - EPSCoR
- Idaho National Lab University Program
- I/U/Government Partnerships at Boise State University
Cooperative Center Programs

- NSF
  - Industry/University Cooperative Research Centers
  - Engineering Research Centers
  - Science and Technology Centers
  - Material Research Centers
- DoD - Multi-disciplinary University Research Initiative
- FAA - Centers of Excellence
- DHS - Centers of Excellence
- NIH – Centers of Excellence
- DoE – Centers on Nanoscale Science
Industry University Cooperative Research Centers

- Initiated in 1973
- Program partnership between academe, industry and non-NSF Federal agencies
- Over 100 centers initiated – wide range of themes
- All at least $300,000 from partners, $75,000 from NSF
- Up to 10 years of support
- Multi-institutional centers encouraged
Experimental Program to Stimulate Competitive Research
EPSCoR (NSF)

- 24 states, 2 territories
- Infrastructure program
  - $3M/year, 3-4 years
  - To improve infrastructure in research areas selected by states
  - 50% cost share
  - Industry/University partnerships encouraged
- EPSCoR co-funding with other programs in NSF
- Other agencies have EPSCoR-type programs (DoD, DoE, NIH, EPA)
INL University Program

- The majority of the university energy research and education is to be through the Center for Advanced Energy Studies (CAES)
- Initially CAES includes the Idaho universities and MIT, NCSU, Ohio State, Oregon State, UNM and industrial members
- A CAES building will be constructed in the next three years
- CAES includes an Energy Policy Institute
- Educational activities will include a 2+2 BS Nuclear Engineering program and advanced degree programs
University/Industry/Government Partnerships

Advantages
- Opportunity to work together on important projects of mutual interest
- Access to unique facilities
- Potential for support of faculty and students

Concerns
- Intellectual Property
- Contracting issues
- Access for foreign nationals
- Support for graduate students through degree
State of Idaho
Intellectual Property Drivers

Bayh Dole Act
Transfers exclusive control (ownership) over most government funded inventions to universities operating with Federal contracts for the purpose of further development and commercialization

Idaho State Board of Education
Claims ownership of any invention or patentable discovery arising from any work performed by an employee of the State Board during the course of his duties to the Agency, School or Institution
Tech Transfer/Licensing

- Via Idaho Research Foundation (soon)
- Royalties: 60% faculty / 40% University
- In principle, university can hold an equity position in a company
BSU Research and Development
Contracts with Private Industry

- University owns IP developed under contract
- Royalty free non-exclusive license
- Option for exclusive license
- Reduced overhead rate for industry (25%)
- Sample contracts on the web
Limitation on Faculty Support for Industrial/Government Projects

- Little faculty funding/time internally
- Few students available outside formal classes (senior design, research)
- Security/IP requirements limit ability to publish and use research in thesis
- Limited promotion and tenure recognition
University/Faculty Involvement in Research and Product Development

- Student projects (senior design)
- Research contracts
- Idaho SBDC – College of Business
- Tech Help – Faculty/student support of product/production development
- Faculty SBIR/STTR involvement
- Wide range of facilities available
Conclusions

- Many Federal opportunities for university / industry / government cooperative research activities
- National labs offer another set of opportunities for joint efforts
- Significant barriers to joint efforts exist