Understanding Transnational Business-Academia Collaboration: A View From the US

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The overall research, development, and innovation effort in the US is dominated by business spending.

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*Indicators 2018: Recent Trends in U.S. R&D Performance, Chapter 4.*
Applied research and development comprise more than 80% of U.S. R&D performance

*Indicators 2018: Recent Trends in U.S. R&D Performance, Chapter 4.*
The relationship among government, academia, and industry is undergoing important changes.

Science and Engineering Indicators 2018.
The Federal government is increasingly interested in technology transfer
Business-academia collaboration takes many forms
Federal support for academia-Industry collaborations is only a small part of a much larger R&D effort

- Limited funding available from multiple Federal agencies specifically targeting academia-industry collaboration

- State funding programs have a narrower focus on a state’s assets and priorities, and direct funding provided from Federal sources accordingly

- Universities are central to the way funding is directed, whatever its source, and enjoy an important level of discretion in collaboration development
The changing RDI environment has led to a growth in Federal programs that foster academia-industry collaboration

- Foster academia-industry collaboration not as an end in itself, but as a mechanism for meeting mission-based goals
- Generally support a broad variety of academia-industry interactions
- If successful, these programs should increase productivity in the private sector, but this goal is emphasized less than the narrower purpose of validating basic and applied science investments
- For political reasons, Federal government spending is broadly distributed and mission focused and does not target the general success of a particular business cluster
State governments and state level institutions also support activities that foster academia-industry collaboration

- Institutions include universities and regional development organizations
- The goals of these programs are clearly focused on economic development, including growth and development in terms of income and employment of the region or state in question
- States also use a “mission” based economic development approach, with academia-industry collaboration just one piece of an overall strategy
- State and regional efforts very often privilege locally represented economic sectors or clusters
Key initiatives in academia-industry collaboration are developed and executed at the individual institution level

- Leading RDI institutions in the US seek out, engage, and collaborate with businesses largely through their own initiatives
- Businesses search for, and negotiate with on a one-on-one basis, those academic institutions with the mix of technology and talent that best meet their needs
US academic institutions have experience collaborating with foreign companies

- Large multi-national businesses are well represented in university partnerships
  - Their experience with the legal and administrative challenges of working across borders makes industry-academia collaboration relatively easy

- Small foreign firms face some hurdles when setting up collaborations with US firms
  - Often unfamiliar with the Bayh-Dole Act and standard university IP processes
  - US and EU universities are similar in their corporate partnership processes, making it easier for EU companies to establish relationships with US universities
Examples of federal, state, and university programs supporting academia-industry collaboration

Georgia Institute of Technology Office of Industry Collaboration
Carnegie Mellon University Corporate & Institutional Partnerships
Small Business Technology Transfer Programs
NSF Industry/University Cooperative Research Center Program
NSF Partnerships for Innovation: Accelerating Innovation Research-Research Alliance
EDA i6 Challenge
Maryland Industrial Partnerships Program
Army Research Laboratory Collaborative Technology Alliances
North Carolina Biotechnology Center
NIH New Therapeutic Uses Program

Focus
Sector Specific
General

Depth of Interaction
Research Support
Knowledge Transfer
Cooperative Research
Technology Transfer

Federal Level programmes
State and Regional Level programmes
University coordination programmes