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**State Tech-based Economic  
Development Programs Experience  
(or Lack Thereof)  
in Collaboration & Global Partnerships**

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Dan Berglund  
State Science & Technology  
Institute



World Health  
Organization



# About SSTI

## Mission

- Leads, supports, and strengthens state efforts to improve state and regional economies through science, technology and innovation

# Perspectives on Collaboration

- What kind of collaboration?
  - University-industry-government
  - Project-specific or ongoing centers
  - Not university researcher working alone w' one company, not interdisciplinary
- Defining collaboration
  - “To work together, especially in a joint intellectual effort.”– American Heritage Dictionary
  - “The process people with **different** ways of seeing the world have to achieve similar goals.”-- wikipedia
  - “The act of willingly cooperating with an enemy.”– Answers.com

# Why Collaboration?

- Economic development perspective:
  - Regions w' active connections between universities and industry have seen great economic benefits
- Industrial perspective:
  - Reducing internal R&D, open to working with other R&D generators
- University perspective:
  - Intellectually stimulating while opening new revenue sources and satisfying policymakers

# Elements of Tech-Based Economy

- Intellectual infrastructure
- Spillovers of knowledge
  - from universities
  - from informal networks
- Technically skilled workforce
- Physical infrastructure
- Capital
- Entrepreneurial culture
- Quality of life

# Examples

- Centers
  - Ohio's Edison Centers
    - EWI– success story
    - EPIC– not a success story
  - New York's Centers for Advanced Technology
  - Florida's Centers of Excellence
  - New York's Centers of Excellence
  - Ohio's Wright Centers for Innovation



# Examples

- University-industry projects
  - Ohio's Edison Seed Development Fund
  - Maryland Industrial Partnerships (MIPS)
  - Connecticut Innovations' Yankee Ingenuity
  - UC Discovery Grants
  - Science Foundation Arizona's Strategic Research Groups
- Building university R&D capacity
  - Georgia Research Alliance
  - Texas Enterprise Fund dollars for Texas Instruments

# Trends

- Mini-NSFs in the 1960s
- Ctrs of excellence w' strong company collaboration
  - Consideration for small and medium-sized companies
- University-industry research projects
- Mega centers
- Building R&D capacity
  - Including through econ dev recruitment
- Some states shifting from R&D capacity to funding for companies and commercialization



# Lessons Learned

- All partners are joining because they see value
  - EWI (self-interest) vs. EPIC (corporate citizenship)
- Meaningful involvement of all parties in governing the collaboration
  - EWI (industry setting direction) vs. EPIC (universities setting direction)
- Realistic goals and metrics are established from the outset
  - Florida's Centers of Excellence unrealistic expectations



# Expected Outcomes for FL

- World class research
- Compete against Silicon Valley and Research Triangle Park
- Collaboration between university and Florida business community
- Improved curriculum
- Recruitment of world class faculty
- Establishment of leading edge research facilities
- Acquisition of public and private funding for collaborative research
- Move technology to commercial sector
- Self-sustaining after 2 years

# Lessons Learned

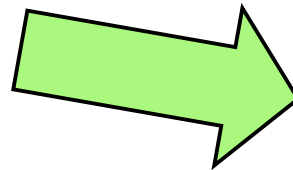
- All parties understand the others' goals, accept the legitimacy of those goals, and make necessary accommodations
  - State: Not all benefits will accrue in-state
  - Industry: Publishing needs and timeline
  - University: Timing
- Sufficient resources are provided to make the collaboration of interest to all

# Lessons Learned

- Committed high-level leadership is required that understands:
  - Economic impact further down the road than other approaches
  - Research does not always succeed
  - Significant cultural differences between actors
- Action should be based on:
  - Understanding of needs, capabilities, and gaps
  - Filling gaps to encourage change in private sector behavior

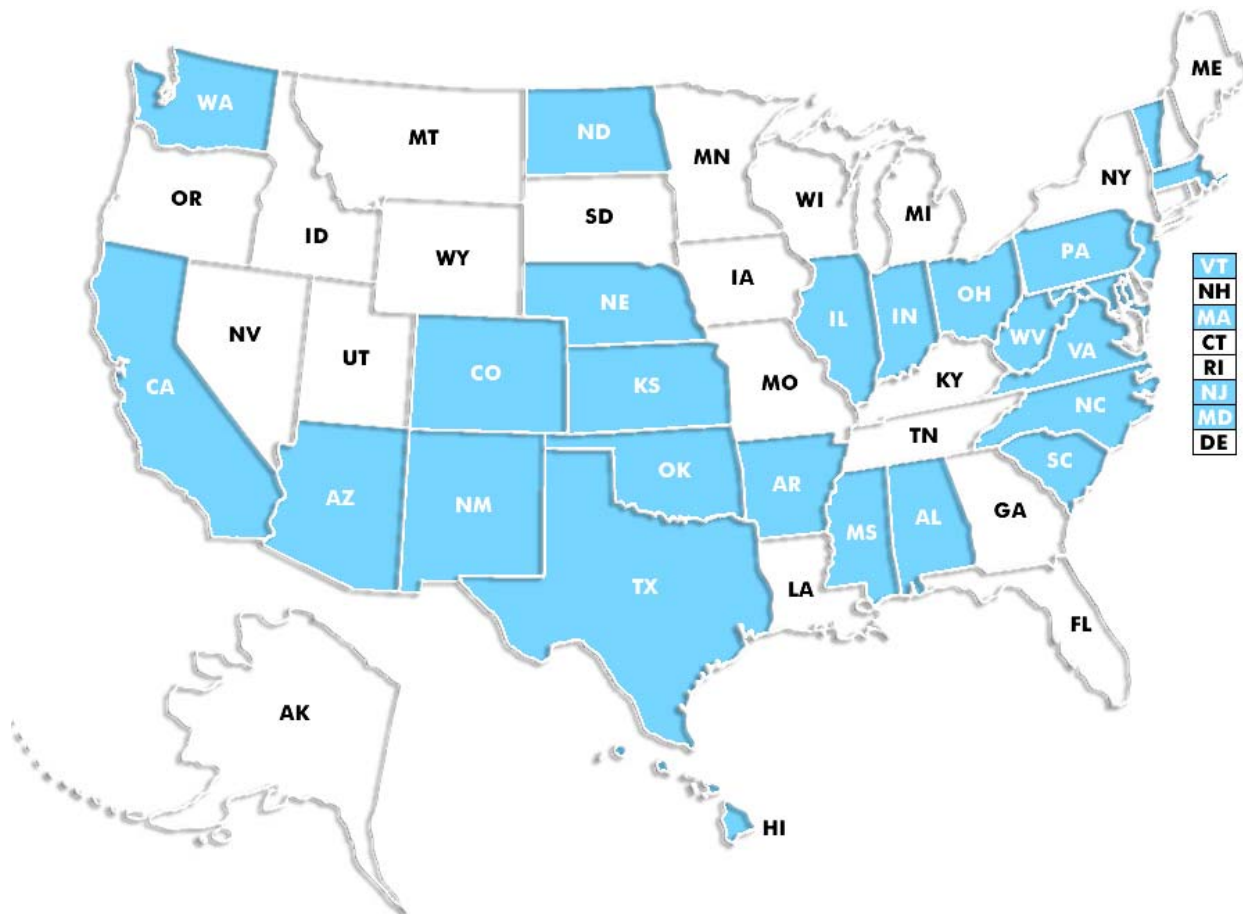
# Introduction to Survey

inquiries sent to 174  
TBED organizations  
58% response rate



38% organizations  
have int'l relationships  
62% do not, or  
have ended them

# Geographic Scope



most mentioned  
countries:

- Canada (10)
- U.K. (9)
- China (6)
- Japan (5)
- Germany (5)
- Israel (5)
- Russia and fmr. Soviet republics (4)
- Mexico (3)
- Ireland (3)
- Australia (3)



# Examples of Relationships

- Establish incubators
- Act as gateways for customer access and direct investment in foreign markets
- Share technical information through research partnerships
- Sponsor business plan competitions
- Advise best practices for commercialization

# Genesis of Relationships

- Regional trade initiatives
- Google searches from other countries
- Sister city/county/region relationships
- Stop for international delegations
- Outgrowth of university cooperation
- Enlightened/aggressive foreign leaders
- Personal friendships

# Respondents' Answers

## Why International Collaborations Do Not Exist

We are too busy with other matters	29
Do not see reason to establish relationships	17
Do not know where to start	8
Unable to find partners in U.S. to assist	6
Unable to find appropriate partners in other countries	4
Other	37

# Other Reasons

- Time and money
- Regional trade organizations or consulates handle this
- Export control difficulties
- Don't get beyond talking stage
- Seen as competition from other orgs
- Client companies don't have money

# When Things Fall Apart

- Can't just meet 1 or 2 times and expect quality relationship.
  - Anchors to be visited repeatedly
- Insufficient funds were committed compared to what was needed
- Markets for some technologies just don't exist in some markets
- Different countries, different cultures
- TBED orgs in other countries may not have the same clout as in U.S.

# Recommendations

- True champions are needed on both sides
  - More critical than financial backing, lack of commitment by individuals leads to failure
- Creativity is needed to find mutually beneficial opportunities
  - “what are the gains to my state?”
- Strong relationships take time to build
  - Both orgs and individuals need to plan time investment
- Receive assistance from 3<sup>rd</sup> parties
  - Grants and advice exist to build these relationships
  - Government officials, business leaders and patent lawyers can be connectors



# Recommendations

- Make sure you have 3 years (minimum) of funding
  - Don't expect results in less than 36 months
- Need to identify both buyers and sellers in international markets
  - Having only one type will not work
- Having the blessing of govt's may help
  - Can also create red tape
- Push follow-up from businesses
  - Without input from key associates, relationship fizzles



# Contact Information

Dan Berglund

State Science & Technology Institute

614/901-1690

[berglund@ssti.org](mailto:berglund@ssti.org)

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