

NANOTECHNOLOGY & TEXAS: OPPORTUNITIES

***Nanotechnology Advancement Center
Introductory Breakfast Meeting
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Dr. Trybula's Pertinent Background



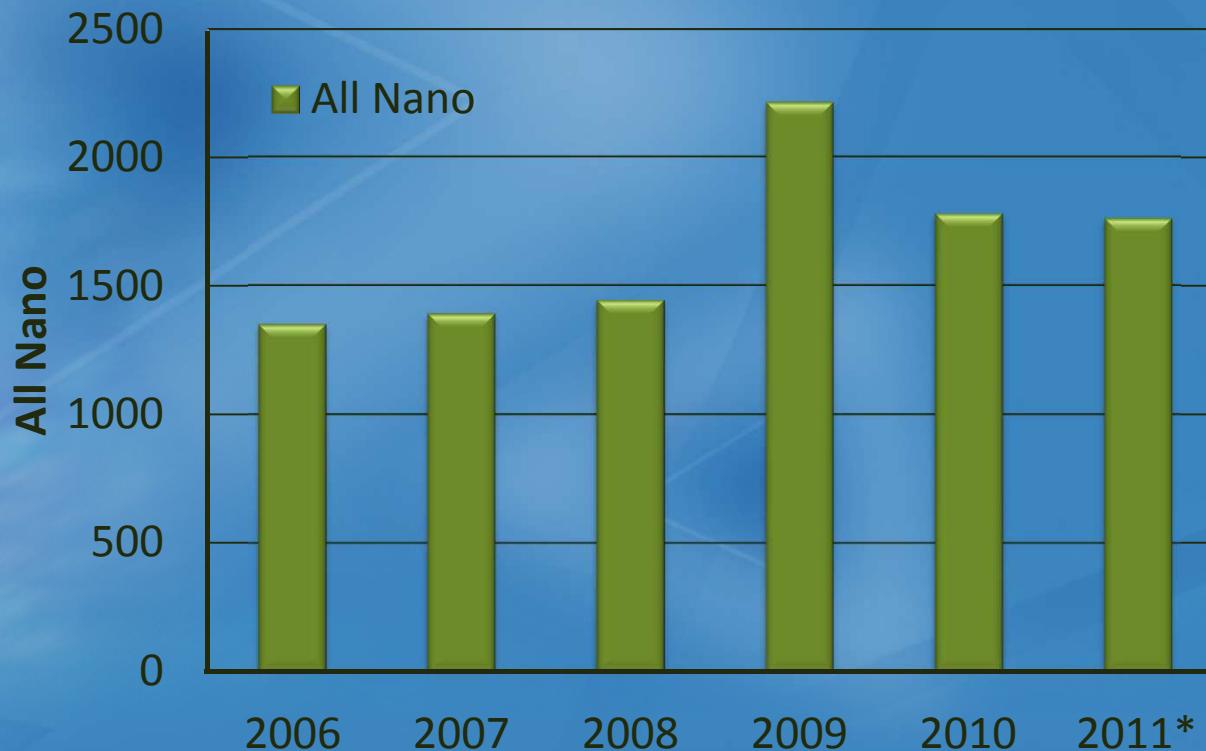
- **Director, Trybula Foundation, Inc. [1999-]**
- **Director, Nanomaterials Application Center at Texas State University [2006-2010]¹**
- **Senior Fellow, SEMATECH [1993-2006]**
 - **State Strategy on Advanced Technology**
 - **Texas Workforce Commission Cluster effort**
 - **Enterprise Fund and Emerging Technology Fund developmental efforts**
- **Author of 2009 Report on the funding impact of technology in Texas**
- **Member of Central Texas RCIC technical review committee**
- **IEEE Distinguished Lecturer on Nanotechnology**
- **Nanotechnology presentations at U.S. Capital and Federal meetings**
- **Involved in nanotechnology since 1996**
- **Leading proponent of systematic approach to nanotechnology safety**

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¹NAC changed to privately held organization effective August 1, 2010

Federal Funding for Nanotechnology

Federal Nano Funding History (\$M)



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Source: Dr. K. Kulinowski – Rice University

Funding Opportunities



- Texas has a number of programs that can assist emerging and developed businesses
- There are three that I would like to address:
 - Texas Enterprise Fund
 - Texas Emerging Technology Fund
 - Texas CAPCO Fund
- I will not cover Angels, Angel Networks, or Venture Capital Organizations.
- I also will not specifically cover the Cancer Prevention and Research Institute of Texas (CPRIT)

Texas Enterprise Fund



The fund is used only as a final incentive tool where a single Texas location is competing with another viable out-of-state option.

- **Projects that are considered for the TEF must demonstrate a significant rate of return on the public dollars being invested in the project. Those include but are not limited to the following:**
 - Competition with another state for the project must exist and the business must not have already announced a location decision
 - Projected new high-paying job creation must be significant – past recipients have typically created more than 100 jobs in urban areas or more than 50 in rural areas
 - Capital investment by the company must be significant
 - The project must have community involvement from the city, county and/or school district, primarily in the form of local economic incentive offers
 - The applicant's business sector must be an advanced industry that could potentially locate in another state or country
- **There are penalties for not meeting the incentive goals.**
- **Typically, this has not been employed to bring in nanotechnology companies.**

Texas Emerging Technology Fund



- The ETF has three award categories: 1) Commercialization; 2) Research Excellence; and, 3) Matching Grants, which are focused on competitive commercialization.
- The goal of the ETF Commercialization Awards is to provide funding to bridge the “Valley of Death” scenario for:
 - Existing businesses to expand their commercializing efforts, and
 - Start-up companies to commercialize their products.
- In the next fiscal year, a “Proof of Concept” Award will be incorporated into the Commercialization sections of the ETF.
- Commercialization awards, which range from \$250K to \$5M, require collaboration with a Texas public or private institutions of higher education. The State’s equity position is the means of returning benefits to the taxpayers.

Emerging Technology Fund



- The submission process begins with a proposal submission to one of Texas' seven Regional Centers of Innovation and Commercialization (RCIC) or the statewide Life Sciences CIC.
- A technical review committee provides guidance to companies and approves those businesses that have promise both technically and with respect to a solid business direction.
- Those companies who pass this step move forward to a statewide Committee of 17. If the companies are approved by this Committee, they move to the state level officials.
- After unanimous approval by the Governor, the Lt. Governor, and the Speaker of the house, the companies move into negotiation of terms and conditions, including the State's equity position, before receiving any funding.
- The funds for ETF, as for all other funding, has specifically identified source of income in the state budget. There has not been any proposals accepted since the first quarter 2010 due to the fact that specific funding for the ETF was identified as monies owed Texas by the Federal Government for Hurricane Rita support of FEMA efforts. It was recently received and proposals will be accepted in October.

Emerging Technology Fund



Observations:

- 140 awards have been made
 - There has been one failure,
 - And, one graduate, which returned 150% of Texas' investment.
- As a mentor, I have roughly one company per submission period that progresses to making a presentation to the Committee of 17.
- The quality of the company preparation has improved dramatically from the first submissions
- The business ideas and the determination of the innovators have improved
- The selection criteria for final approval is more stringent than VCs
- The approval cycle is too long
- Other states have recognized and admire the impact of the ETF

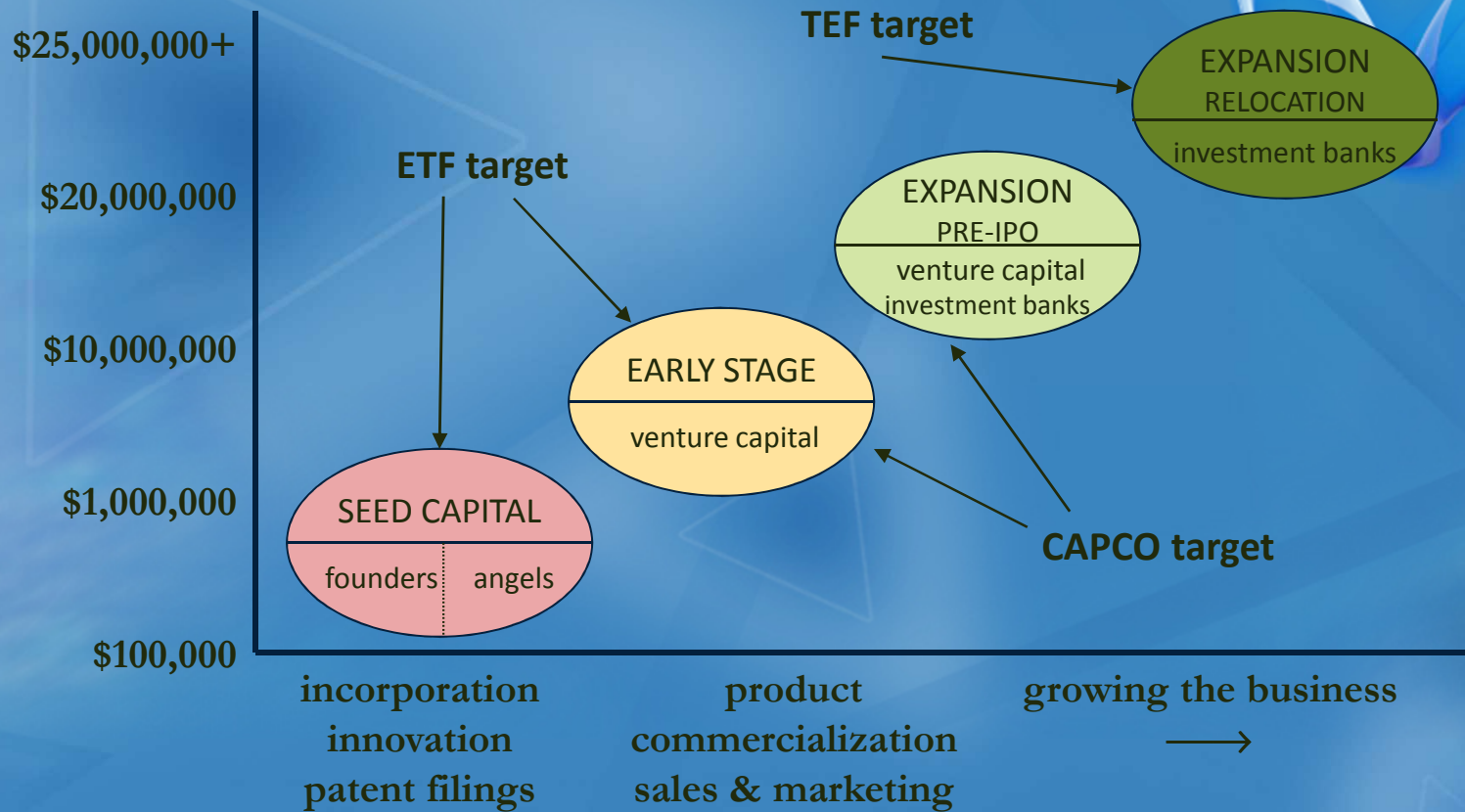
Texas CAPCO Program



What are CAPCOs?

- **State regulated, privately-owned, venture capital funds that invest in geographic areas that are typically underserved by the investment community**
- **Investment is accomplished through the creation of public/private partnerships that combine private investment capital with state tax incentives**
 - **Investment by CAPCOs attracts other VC investment to Texas from other states.**
- **The state creates CAPCO certification standards and makes premium tax credits available to insurance companies that invest in local CAPCOs**
 - **The state reviews applications and certifies CAPCOs, which then compete in the open market for insurance company investors**
 - **Once the funds are raised, the CAPCO managers invest in qualified companies located in Texas. Investment decisions are based on the judgment of CAPCO managers**

The Investment Arena



Texas works to provide support in all areas of growth.

The background is a solid blue color with several faint, light blue geometric shapes, including triangles and rectangles, scattered across it. In the upper right corner, there is a glowing, three-dimensional blue ribbon that forms a complex, looping shape, resembling a Möbius strip or a similar topological structure. The word "Questions?" is centered in a large, bold, black font.

Questions?

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References



- **Texas” Funds**
 - Enterprise Fund - http://governor.state.tx.us/ecodev/financial_resources/texas_enterprise_fund/
 - Emerging Technology Fund - http://members.texasone.us/site/PageServer?pagename=tetf_homepage
 - CAPCO - <http://www.window.state.tx.us/capco/history.html>
- **2008 Technology Report -** <http://www.tryb.org/2008Update.pdf>
- **2007 NANO SAFETY White Paper -** http://www.tryb.org/a_white_paper_on_nano-safety.pdf

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