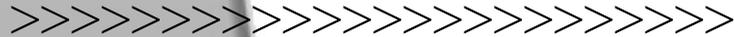


*...from concept to
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Effective State Science and Technology Strategies: The Oklahoma Perspective



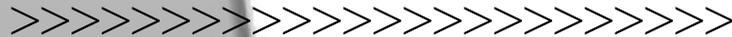
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Sherilyn S. Stickley
Interim Executive Director

July 28, 2004

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Oklahoma S&T / Economic Development Strategies



Impetus For Change: Historical Background

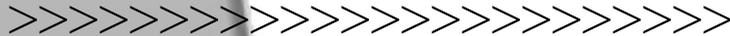
- **Oklahoma's S&T strategies are designed and pursued with an overt economic development purpose**
- **Early 80's: Oil bust / Penn Square Bank Failure**
- **EPSCoR State**
- **Need for economic diversification**



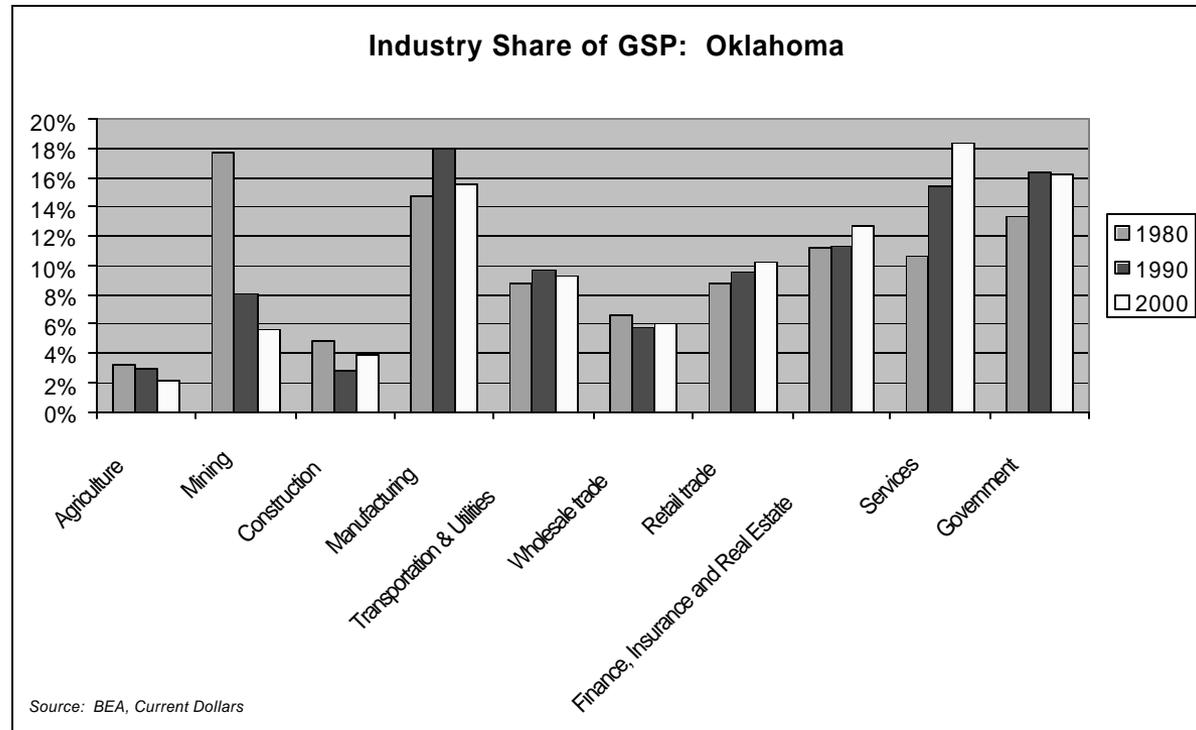
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Impetus For Change: Historical Background



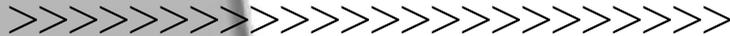
Oklahoma: Changes in Industry Mix: 1980 - 2000



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Impetus For Change: Historical Background



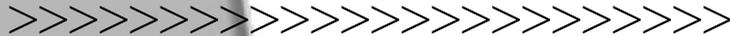
***Economic Development
Act of 1987 established
OCAST***



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Oklahoma S&T Strategies



OCAST's Broad Mandate

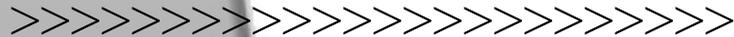
- To foster innovation in existing and developing businesses
 - By *supporting* basic and applied research
 - By *facilitating* technology transfer between research laboratories and companies
 - By *providing* seed-capital for new innovative firms and their products, and
 - By *fostering* enhanced competitiveness by small and medium-sized manufacturing firms by stimulating productivity and modernization.



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Oklahoma S&T Strategies



OCAST's programs: *from concept to commercialization*

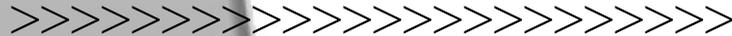
- Research assistance programs
 - Health Research Program
 - Applied Research Support Program
 - Intern Partnership Program
 - SBIR



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Oklahoma S&T Strategies



OCAST's programs: *from concept to commercialization*

➤ *Technical assistance programs*

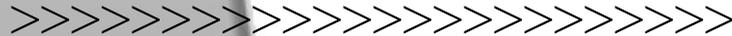
- Oklahoma Alliance for Manufacturing Excellence (a NIST MEP affiliate)
- Oklahoma Technology Commercialization Center
- OCAST Technology Business Finance Program



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Oklahoma Industry Clusters

- *Life Sciences*
- *IT, Telecommunications*
- *Weather-related*
- *Aerospace*

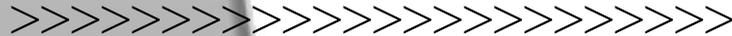
**OCAST programs have been both
targeted and market driven**



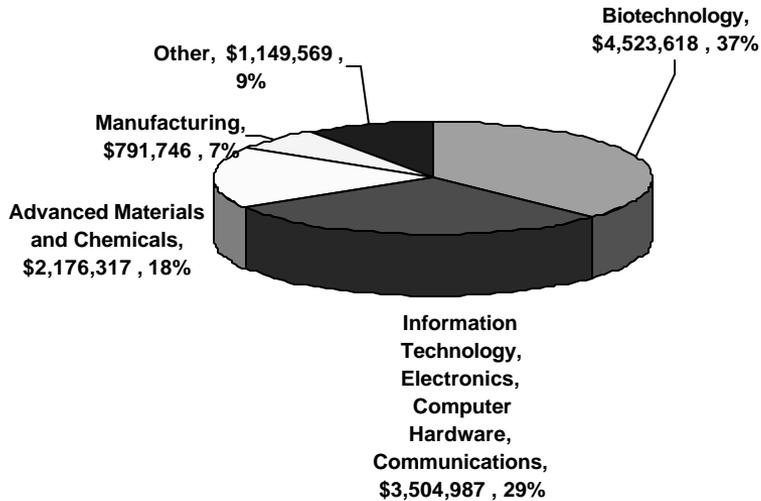
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Oklahoma S&T Strategies



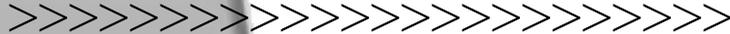
OCAST Oklahoma Applied Research Support (OARS) Awards by Research Area (FY 01.2 - FY 03.2)



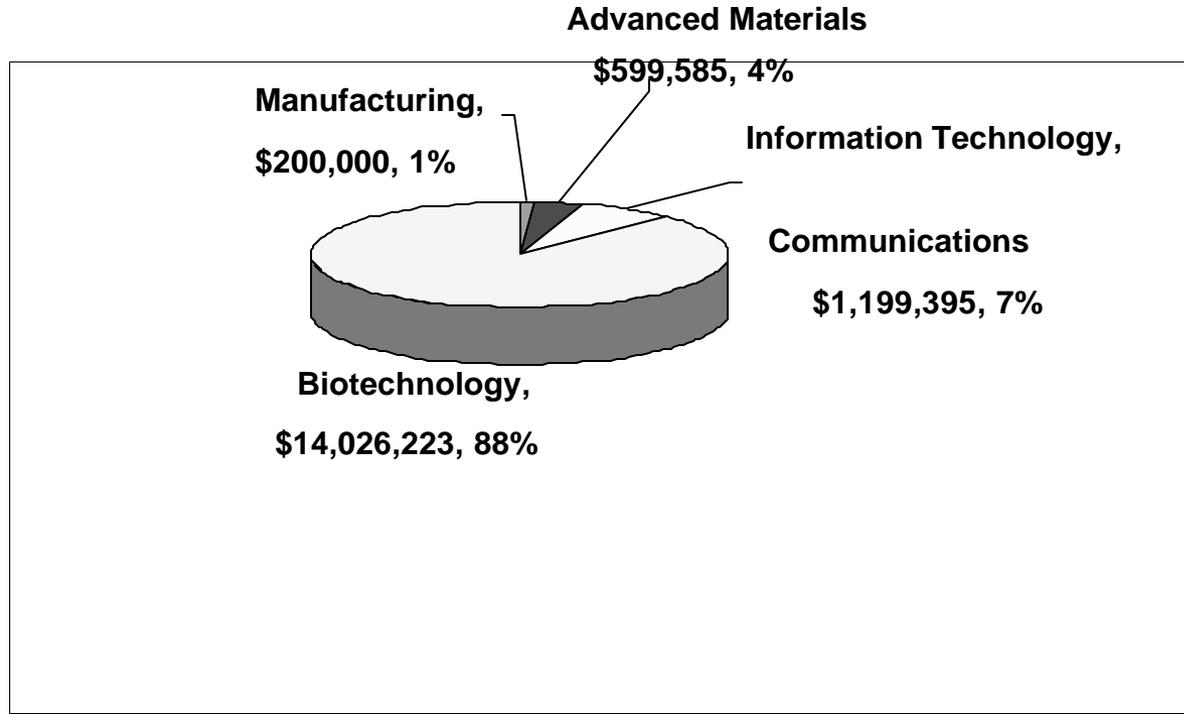
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Oklahoma S&T Strategies



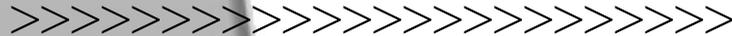
SBIR/STTR Awards by Research Area for Oklahoma in FY 2002



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Oklahoma S&T Strategies



➤ ***OCAST's strengths***

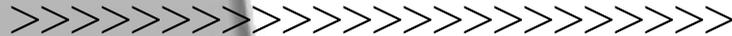
- All elements of TBED under one umbrella facilitates accountability & coordination
- Funding is competitive, not political
- “Customer designed, customer driven” programs
- Some programs contracted to private sector



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Oklahoma S&T Strategies



➤ ***Recent developments***

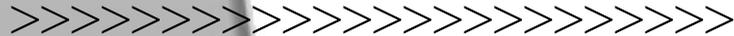
- State Questions 680/681: facilitated university tech transfer and commercialization
- Governor's EDGE report: encouraging acceleration of university technology transfer and commercialization
- TBED concept is spreading



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What the Federal government can do to improve Federal-State cooperation



➤ ***Federal programs that have benefited
OCAST***

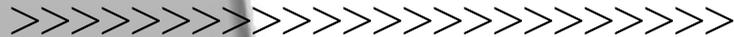
- NIST STEP
- NIST MEP
- SBA FAST
- NSF PFI

➤ ***Federal labs have not been a significant
factor to date***



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What the Federal government can do to improve Federal-State cooperation

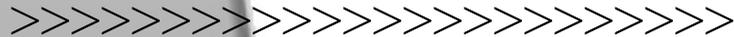


➤ ***How can the Federal government improve
Federal-State cooperation?***

- **Treat states as partners in S&T and economic development**
- **Involve states in development of federal program initiatives**
- **Proactively research states' programs for potential models that could be expanded nationally**
 - **States as "laboratories of democracy"**



What the Federal government can do to improve Federal-State cooperation

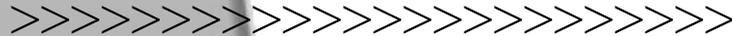


- ***Create grant programs that are flexible and as broad in scope as practical***
 - **Programs supporting entrepreneurship and acceleration of technology transfer and commercialization are particularly valuable at this time**

- ***Recognize that, when it comes to programs for states, “one size does not fit all”; allow for creativity and diversity***



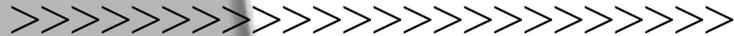
What the Federal government can do to improve Federal-State cooperation



- ***Recognize states' political/fiscal boundaries and their impact on regional collaboration***
- ***Set performance criteria and reporting requirements in proportion to the size and scope of the grant***
- ***Recognize that real change doesn't happen overnight: whenever practical, design grant programs to offer multi-year funding contingent upon satisfactory performance***



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