

## Perspectives on Technology Based Economic Development

Workforce Committee  
North Dakota Legislative Council  
July 29, 2009

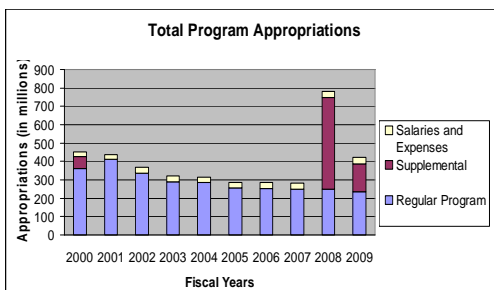
Robert E. Olson  
EDA Regional Director  
U.S. Department of Commerce

## About EDA...



- EDA is the economic development arm of the U.S. Department of Commerce
- EDA makes grants to units of government, universities and non-profit organizations to implement programs and projects to address local and regional economic distress.
- EDA targets assistance to attract private investment, create higher-skilled, higher-wage jobs and spur economic growth.
- Emphasis is on innovation, entrepreneurship and regional competitiveness.

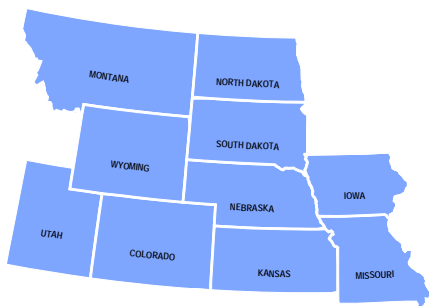
## EDA Budget, 2000-2009



## The Six EDA Regions



## The EDA Denver Region



## EDA Support for Technology Based Economic Development

EDA has made \$9.6 million in tech-related awards in North Dakota since 2000:

- NDSU Research Park at Fargo
- Innovation Center/UND Research Park at Grand Forks
- National Energy Center at Bismarck State College
- US-Canada Connect Initiative
- University Center Program (3-year competitive awards)
  - NDSU-UND (Red River Valley Research Corridor)
  - Minot State University – Bottineau (Horticulture Entrepreneurship Center)

## Milken Institute's State Science & Technology Index



## Milken Institute's State Ranking Factors

- Research & Development Inputs
- Risk Capital and Entrepreneurial Infrastructure
- Human Capital Investment
- Technology and Science Workforce
- Technology Concentration & Dynamism



## Milken's 2008 State Rankings in Science & Technology Index

- "North Dakota emerges with the most dramatic improvement, moving up an impressive 14 positions from 45<sup>th</sup> place in 2002 to 31<sup>st</sup> place in 2008."
- This "meteoric rise" is credited to increases in science and engineering research and the Centers of Excellence Initiative.
- "North Dakota has benefitted by keeping more of its young talent" than previously, and the report also notes that the state as having most rapid acceleration of teachers' salaries between 2000 and 2005.
- Investments in technology leadership in energy, alternative energy and agriculture are also cited.

## Trends in Technology Based Economic Development

- Universities are assuming lead roles in initiatives - and even community colleges are now getting involved.
- States recruiting labs, science and scientists.
- Attraction and retention of talented workers.
- Increased appreciation for entrepreneurship, technology incubators, innovation centers, research parks.
- Technology is jumping out of definitional boxes – to the frustration of industry analysts.
- Big corporations outsourcing R&D.

## Range of Technology Development Themes in the EDA Denver Region

- Advanced & flexible manufacturing
- Aircraft & aerospace
- Animal pharmaceuticals
- Biotechnology
- Electric vehicles
- Human genetics & pharmacogenomics
- Information technology
- Material science
- Nanotechnology
- Plant science



## In Utah: A technology Initiative in clinical genomics...

Springs from the unusual wealth of Utah's population database

- Partners/Collaborators include...
- University of Utah
  - Utah Genetic Reference Project
  - IBM Healthcare & Life Sciences

Industry cluster is forming around this, anchored by companies like Myriad Genetics & LineaGen



In Missouri: A concept to make the state a major production center for electric vehicles

- Two closed Chrysler assembly plants in St. Louis County
- Smith Electric Vehicles starting operations in MO
- Complex for R&D, testing, training and flexible manufacturing



## Common Factors in Successful Technology Based Initiatives

- Use of unique assets/opportunities to gain economic advantage in the global economy
- Visionary/innovative themes that attract resources, partners and talent
- Visible champions and capable day-to-day leadership
- Long-term commitment
- Interim milestones and achievements are celebrated

2006 EDA National Award for Technology-Led Economic Development

North Dakota State University Research and Technology Park



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