



Oklahoma Center for the Advancement of Science and Technology

*Presentation to:
Economic Development Council
Durant Industrial Authority*

December 9, 2014

Michael Carolina, Executive Director

OCAST



*Since 1987, the state's agency and engine
for technology development, transfer and
commercialization*

OCAST Established (1987) to:

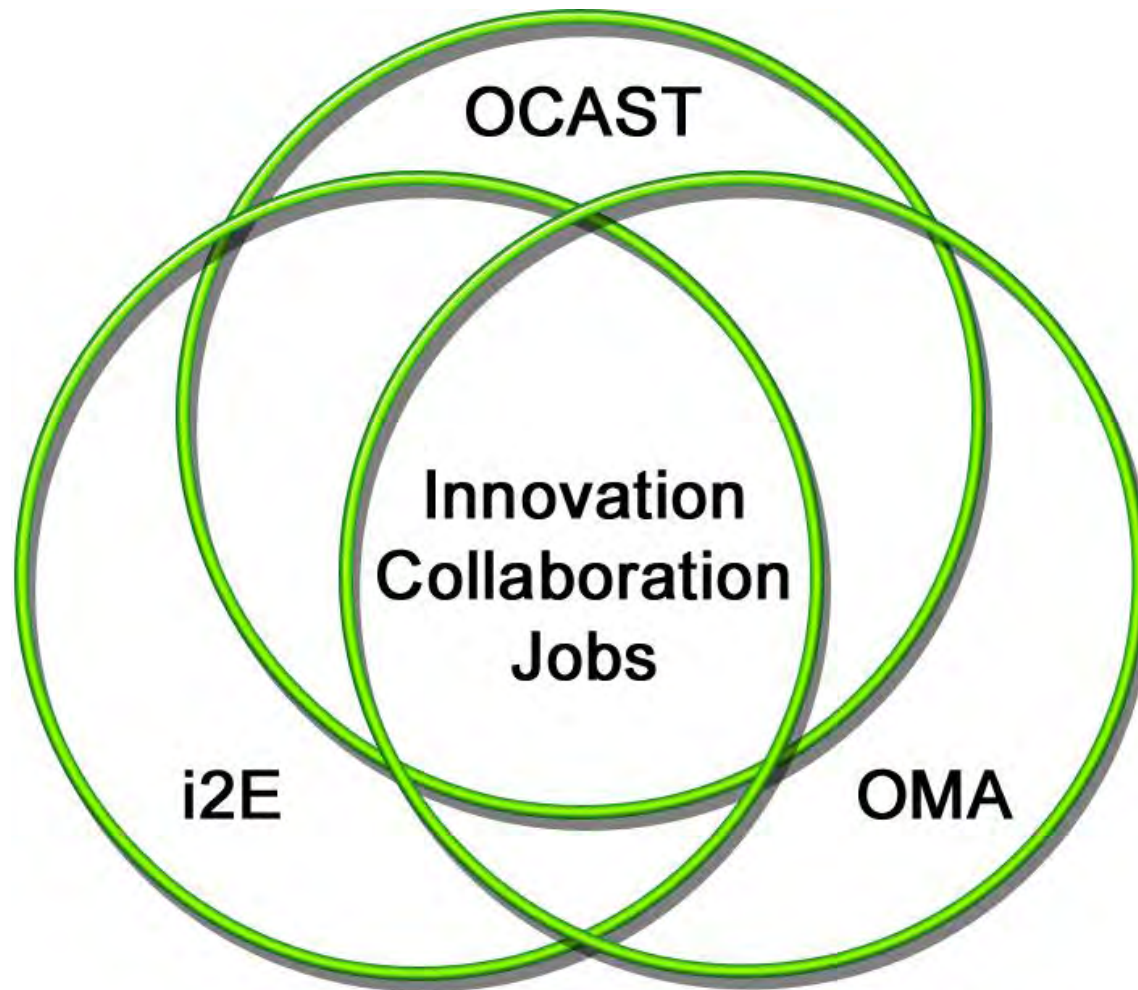
- >> diversify and grow Oklahoma's economy
- >> the state's role in technology-based economic development
- >> the state's research agenda and infrastructure
- >> technology and innovation
- >> entrepreneurial activity
- >> public-private collaboration
- >> quality jobs

OCAST Awards and Return On Investment

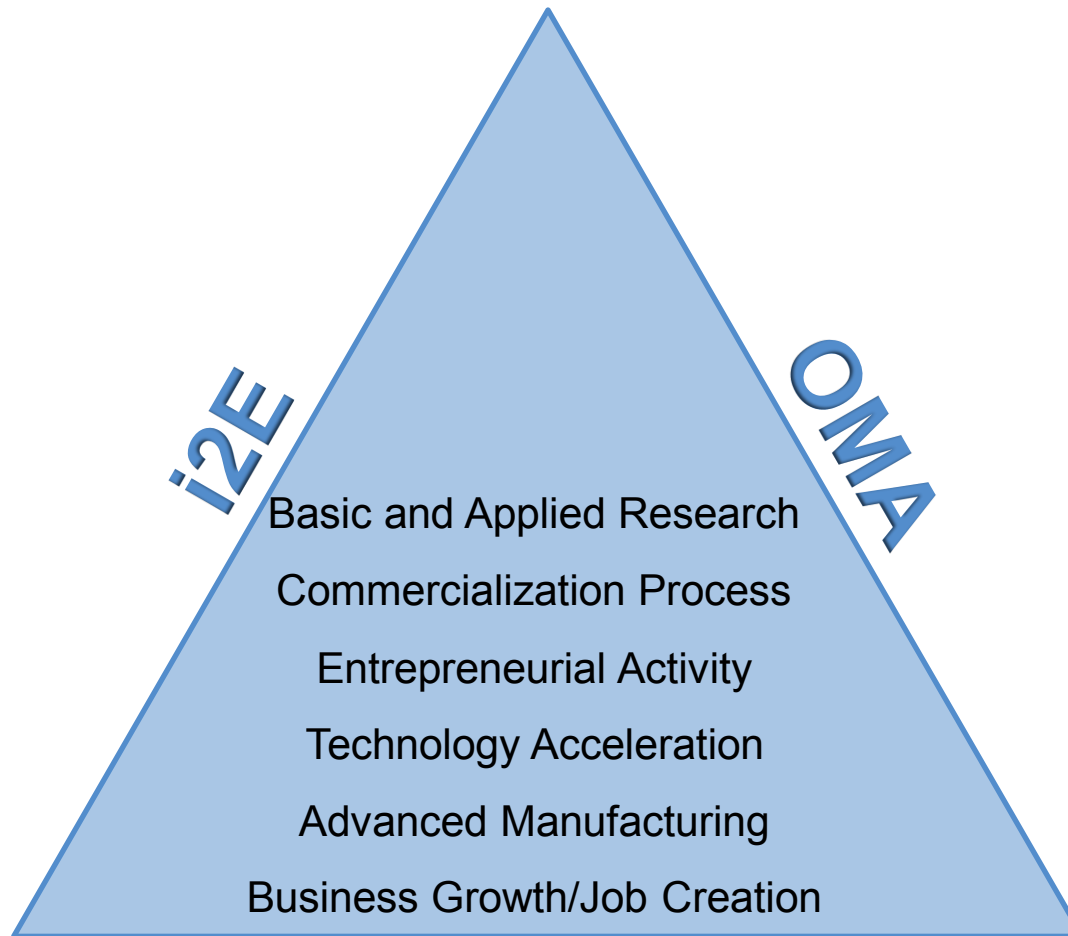
- Total number of awards: 2,519
- Total dollars awarded: Over \$252 million
- Total impact: \$5.1 billion
- Cumulative Return on Investment (ROI): 21:1

Oklahoma's Innovation Model

Strategic Partners



Oklahoma's Innovation Model



OCAST

Leveraging the Relationship . . .

The Role of Technology in Society

“Research is the lifeblood of a high-tech economy and plays a critical role in the economic and personal well-being of most citizens.”

*Restoring the Foundation: The Vital Role of Research
in Preserving the American Dream*

American Academy of Arts and Sciences, 2014

ISBN: 087724-101-5

Oklahoma Research Capabilities

- Research Institutions (OSU/OU/TU)
- Regional Colleges and Universities
- Oklahoma Medical Research Foundation
- The Noble Foundation
- William K. Warren Foundation
- Dean A. McGee Eye Institute
- Oklahoma Blood Institute

Who Benefits from Research?

- State
- Nation
- General Public
 - Quality of life
 - Standard of living (increase per capita income)

“Everything that could be
invented has been
invented.”

-- Charles H. Duell, Commissioner of Patents, 1899

The World is Connected via Social Media & the INTERNET!



Transformational Technologies

- The Internet/social media
- Wireless mobility
- Big Data/cyber security
- Precision technologies/platforms
 - medicine
 - agriculture
 - weather - next generation radar
 - smart cities/autonomous automobiles
 - Additive manufacturing (3-D printers)
- Imaging technology/systems

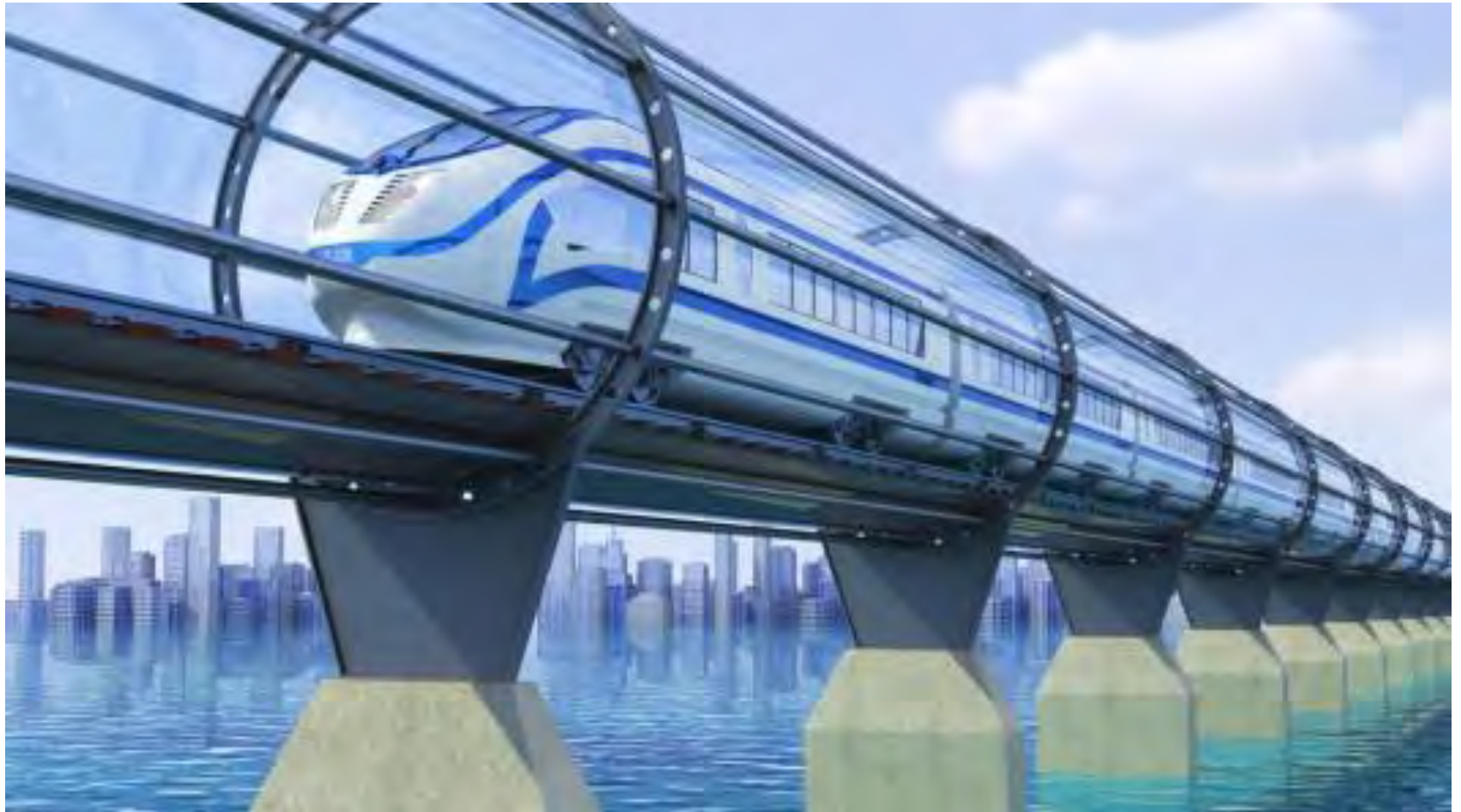
Oklahoma's Industrial Enterprises

- Agriculture
- Aviation/Aerospace
- Bioscience/biotechnology
- Energy (fossil and renewable)
- Manufacturing
- Transportation and Distribution

The Convergence of Science and Science Fiction











FROM CONCEPT TO COMMERCIALIZATION

OCAST»

Cures for Dreaded Diseases (Some Examples)

- Heart disease and stroke
- Cancer
- Diabetes (Types 1 and 2)
- Lupus
- Alzheimer's, Parkinson's, MS, etc.
- Lupus
- Sickle Cell

OCAST Regional Innovation and Collaboration Forums

“Creating/Enhancing Prosperity for Oklahoma”

- Focus on economic development and innovation
- Review regional asset inventory
- Review alignment of regional economic development
- Identify resources available to small businesses
- Share lessons learned from previous forums
- Promote STEM communities
- Use the forums as a catalyst for growth and sustainable development

Strategic. Relevant. Possible.

“Building Regional Economies”

Durant Regional Asset Base

- Agriculture/ranching
- Manufacturing and distribution
- Regional colleges/universities
- Sense of community
- Tourism
- Tribal headquarters.

Competitiveness

- Knowledge economy
- Increasingly global economy

Oklahoma: The United State

Thank You

michael.carolina@ocast.ok.gov

Telephone: (405) 319-8401

Agency Web site: www.ocast.ok.gov