

# Universities & Economic Development

## *Relevance, Connectivity and Productivity. The Akron Model*

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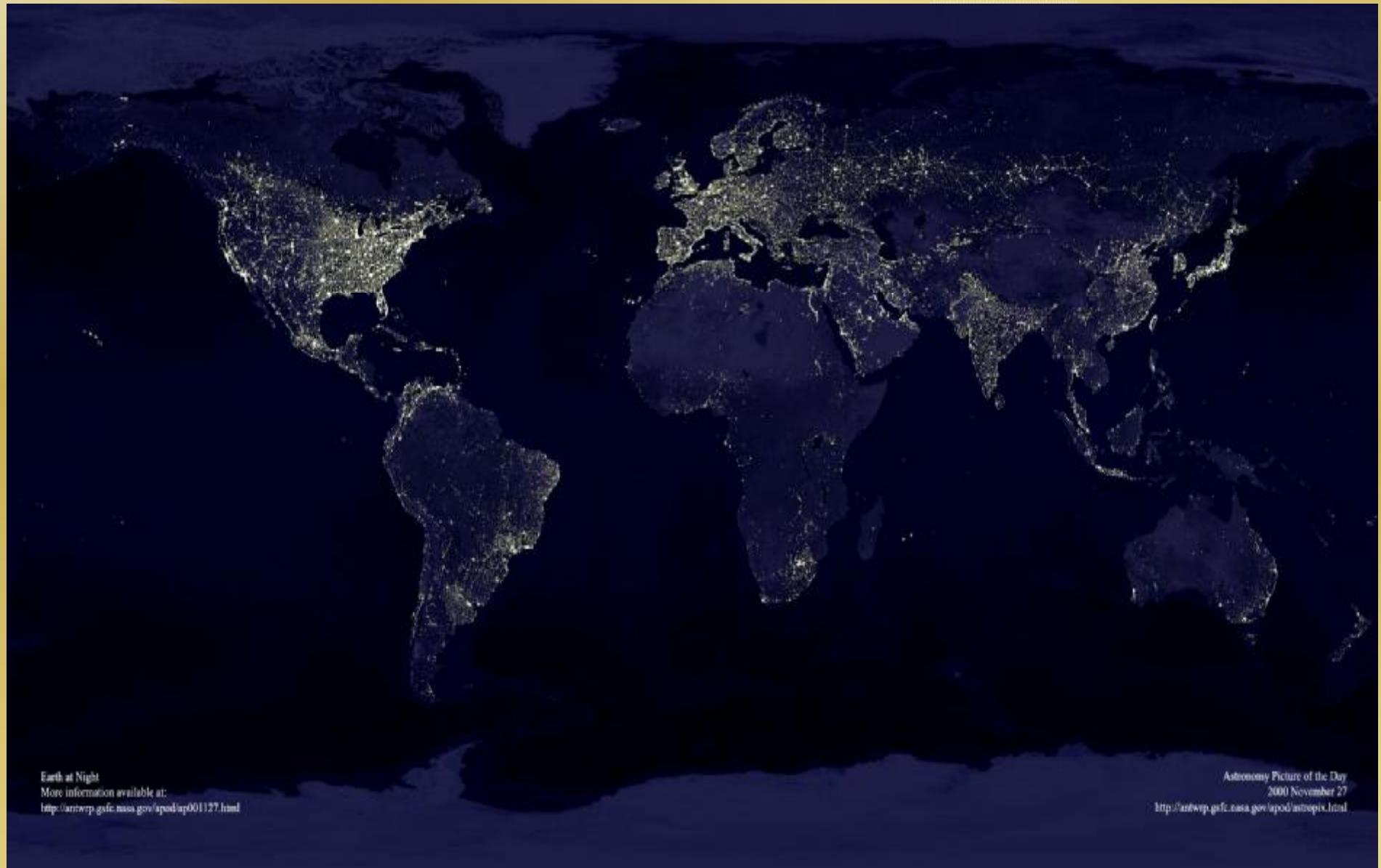
for the symposium

*“Building The Ohio Innovation Economy”*

U.S. National Academy of Sciences, The University of Akron and NorTech

April 25-26, 2011

# The economic geography of the world — regional, spiky & clustered . . . . . not flat !



Earth at Night  
More information available at:  
<http://antwrp.gsfc.nasa.gov/apod/ap001127.html>

Astronomy Picture of the Day  
2000 November 27  
<http://antwrp.gsfc.nasa.gov/apod/astropix.html>

# The economic geography of the nation clusters around universities, mostly in urban areas . . .

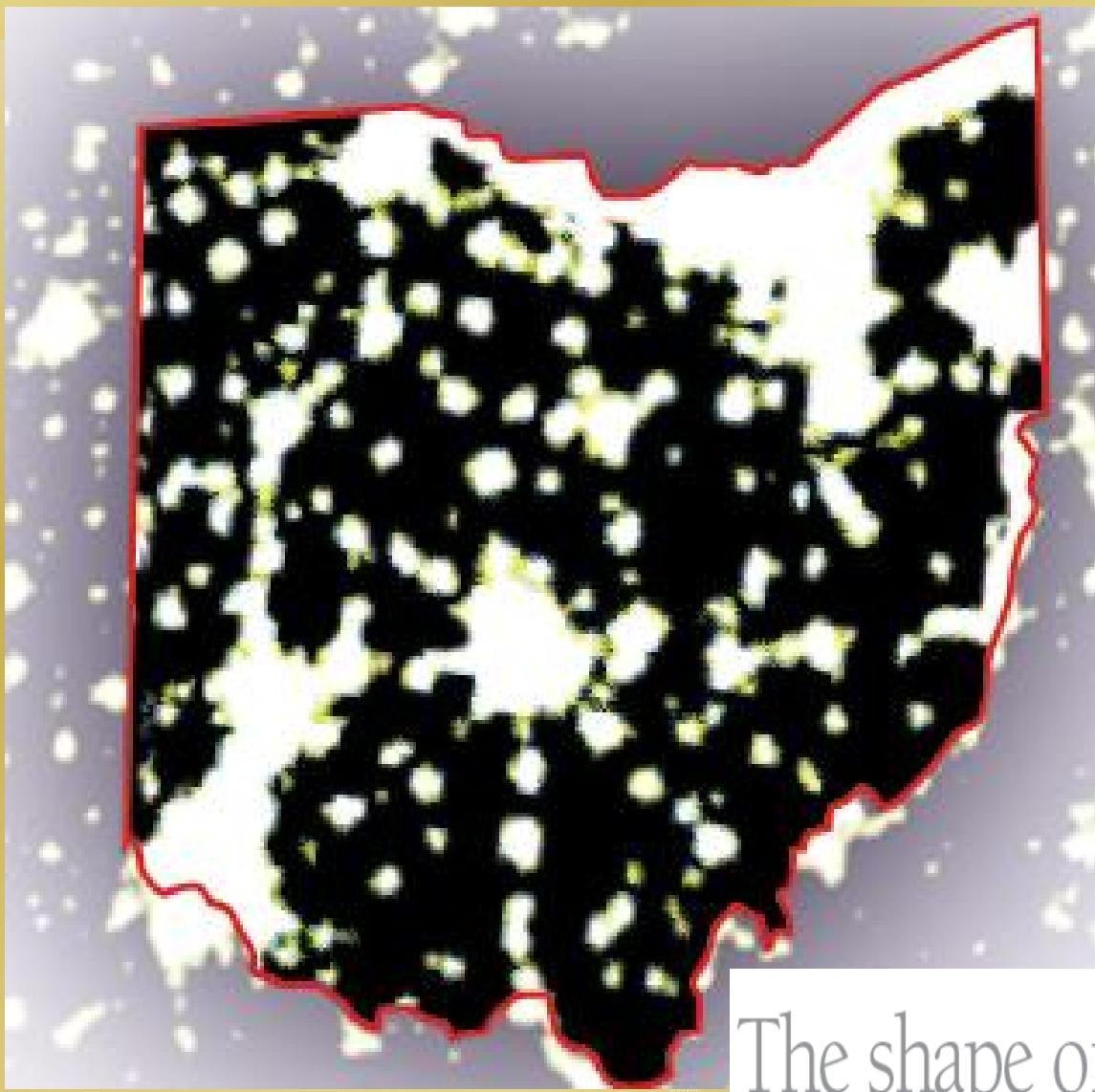


**87%**  
of economic activity

**80%**  
of colleges & universities

**83%**  
of students

# Assessing Opportunities & Resources – The UA Experience



The shape of our regional economy.

# Regional Assets, Challenges and Opportunities

## The Assets . . .

- UA: world's largest polymer program; a top producer of chemistry PhDs; high productivity in IP and start-up businesses
- Strong Industrial Clusters (Advanced Materials)

## The Challenges . . .

- Manufacturing base in transition
- Risk averse
- Lack of investment capital

## The Opportunities . . .

- Strong (but underutilized) research assets
- Growing entrepreneurship potential
- Globalization
- Converging private and public interests
- Focus on differentiation and productivity

# Guiding Framework

## Relevance

- Utilize all University disciplines

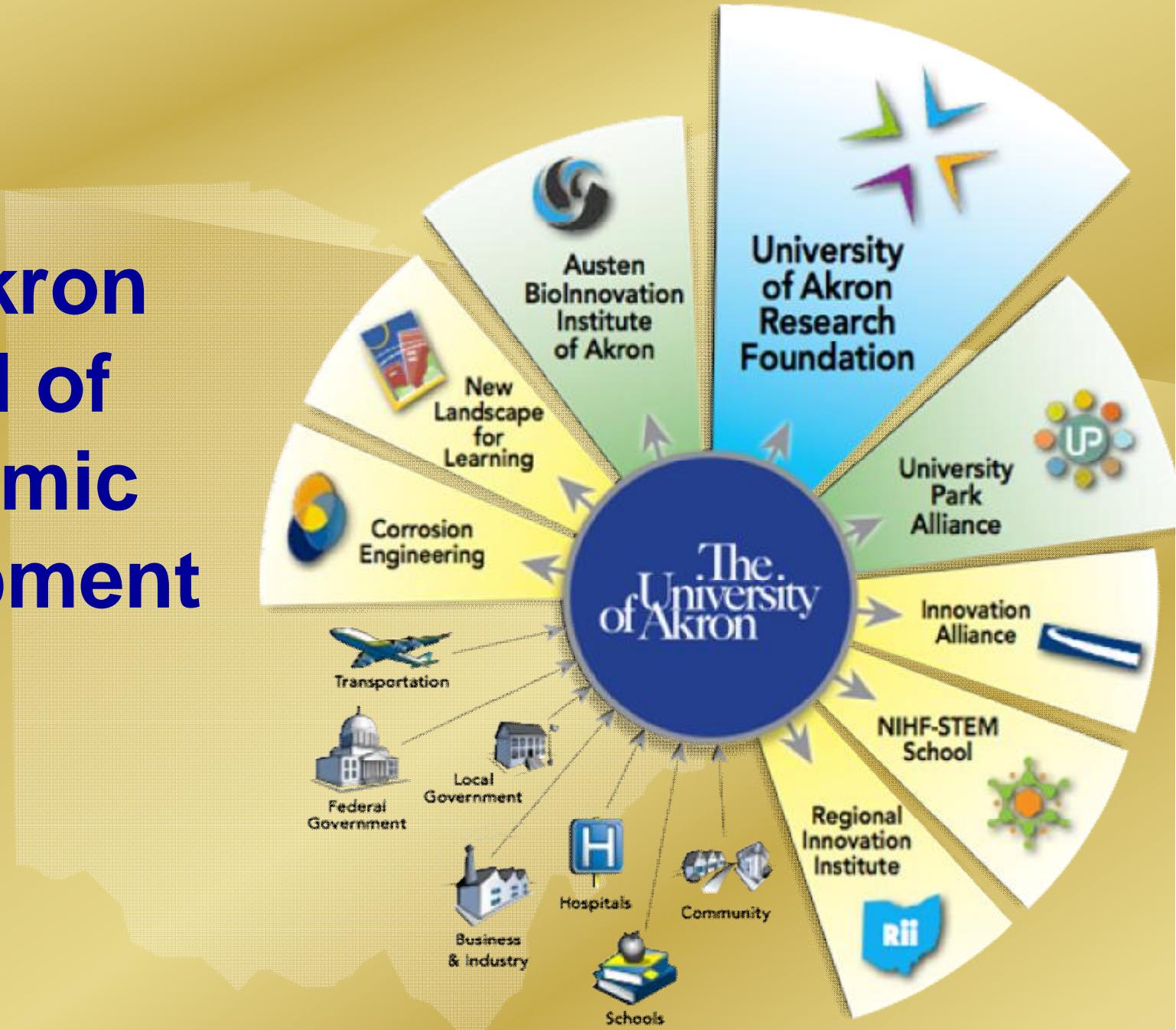
## Connectivity

- Link University to community assets and partners

## Productivity

- New Metrics
  - Value added, not exclusion-based
  - Output per unit of input
  - Scaled metrics

# The Akron Model of Economic Development





# The New Landscape for Learning

A transformational \$500 million campus enhancement program:

- 20 new buildings
- 18 major additions and renovations
- 34 acres of new, green space



## University Park

Neighborhood revitalization via community engagement and catalyzing private investment

- 920 new jobs
- 80 new housing units
- > \$300M in private investments



## BioInnovation Institute

A \$200-million partnership to establish Akron as the world's #1 biomaterials and orthopedic research program within 10 years.

## INNOVATION



**A collaboration of universities to enhance educational efficacy, talent development, and job/business growth, e.g. shared services in IT areas.**



Corrosion and Reliability Engineering program (CAREs)

**Addressing this vital issue via a research network and the first undergrad corrosion degree in U.S.**



**NATIONAL INVENTORS HALL OF FAME® SCHOOL**  
Center for Science, Technology, Engineering and Mathematics Learning  
A Collaborative Community

**A highly successful middle school focused on STEM subjects and problem-based learning.**



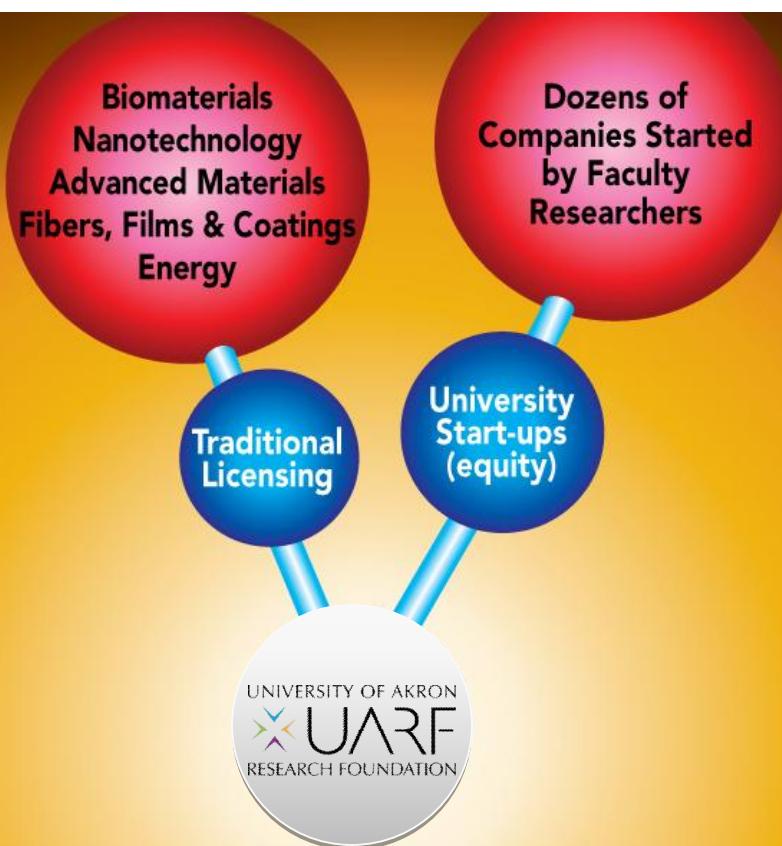
Regional Innovation Institute

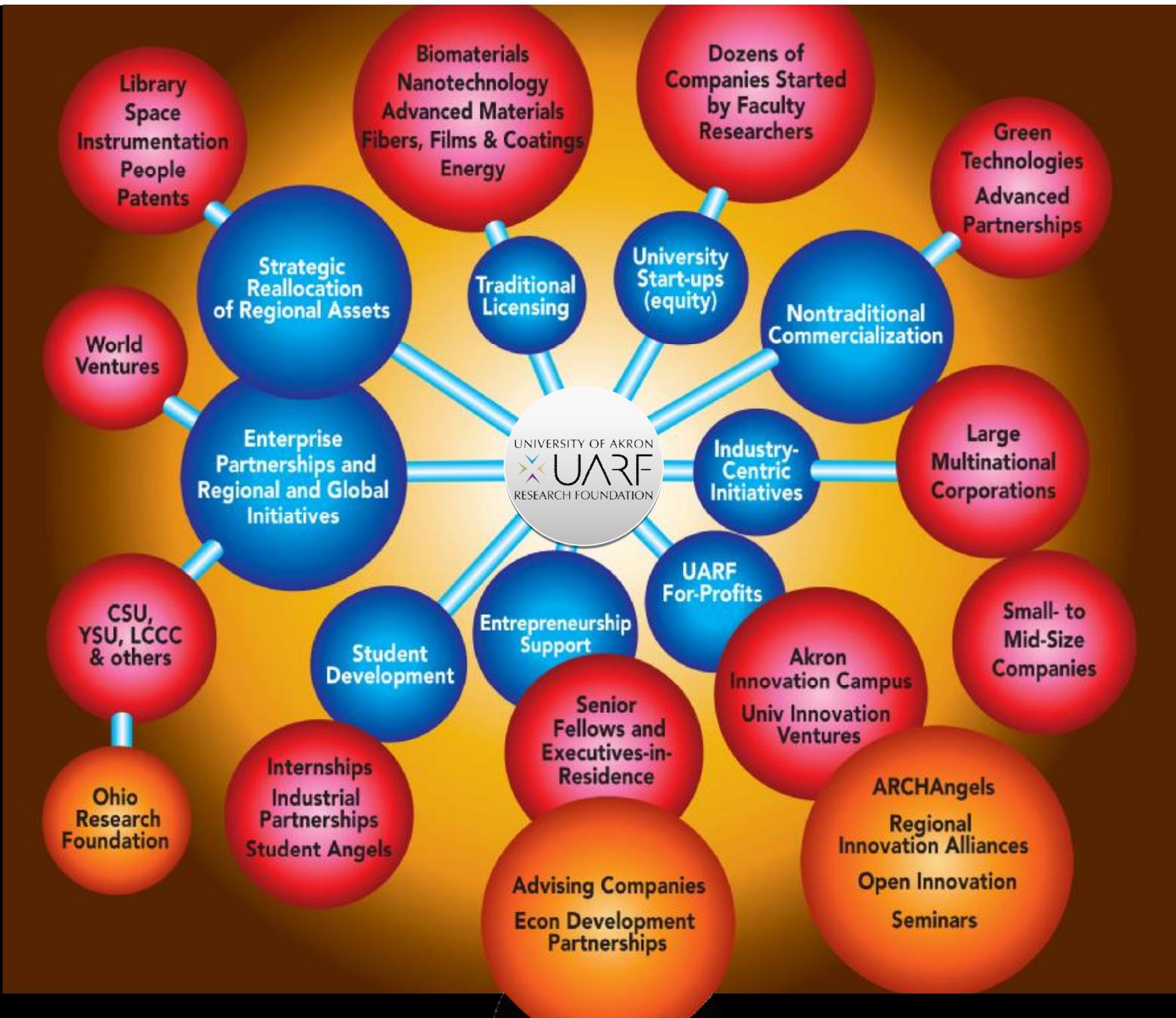
**An emerging network of academic, industrial and community stakeholders to enhance the region's innovation ecosystem.**

# A Broad-based and Robust Platform for Economic Development

**UARF is a boundary-spanning organization that links industry and the University**

- Assesses public/private resources for mutually beneficial reconfiguration and reallocation.
- Facilitates tech transfer and start-ups, administers industry contracts, houses outreach efforts.
- Provides innovation services to internal and external researchers/organizations.
- Utilizes talents of industry retirees to promote innovation and entrepreneurship.
- Increases research funding and seed capital opportunities.





# National Recognition

#1 in Ohio in rate of return per research dollar in tech commercialization, 2007



OHIO BOARD OF REGENTS



Exemplary emerging university for advanced innovation partnerships, 2007

Winner of 2007 Award of Excellence in Technology Commercialization

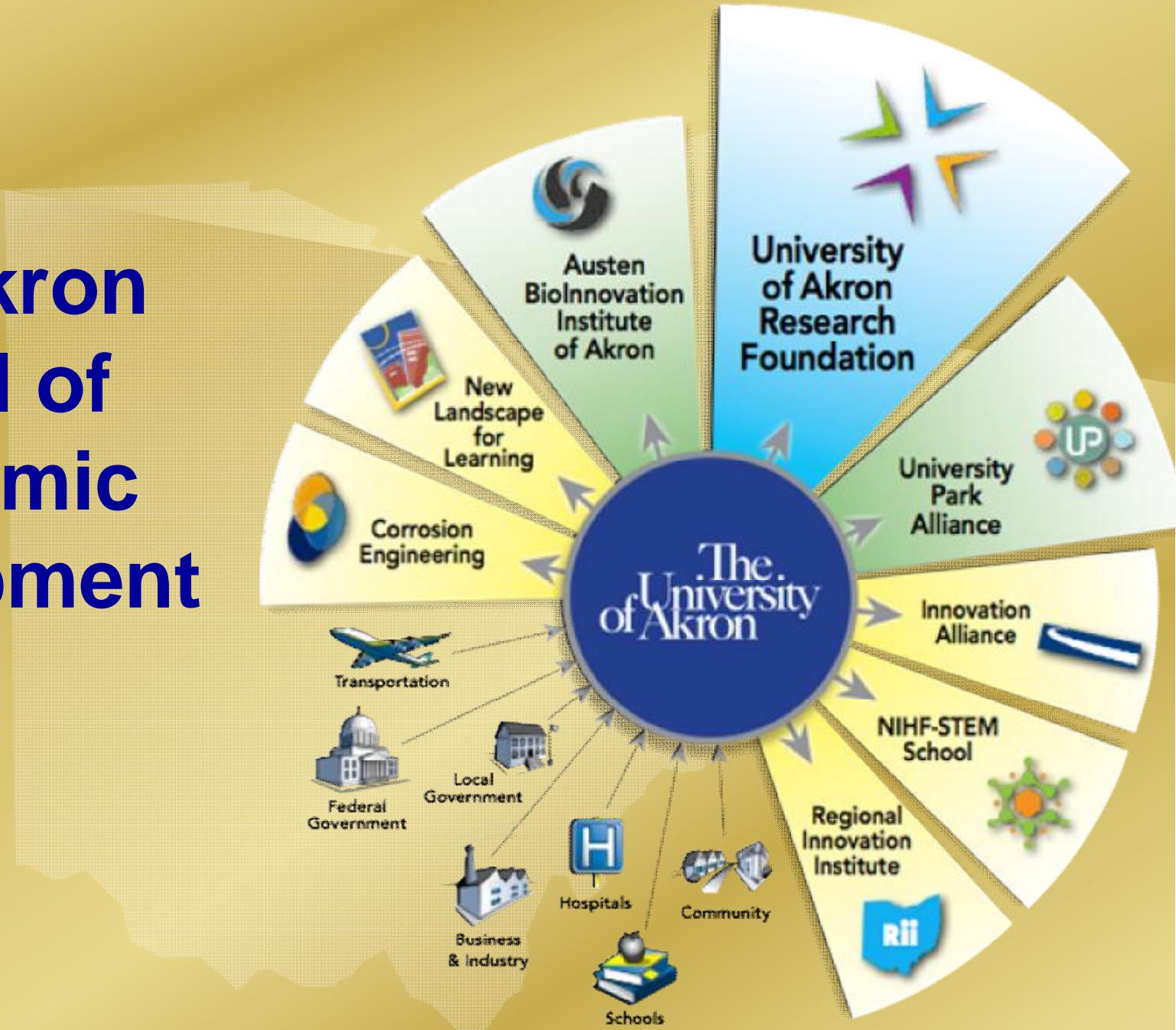


#1 in patents issued per million dollars in research expenditures, 2000-2004

i6 Challenge Award – in partnership with ABIA – 1 of 6 awarded nationally



# The Akron Model of Economic Development



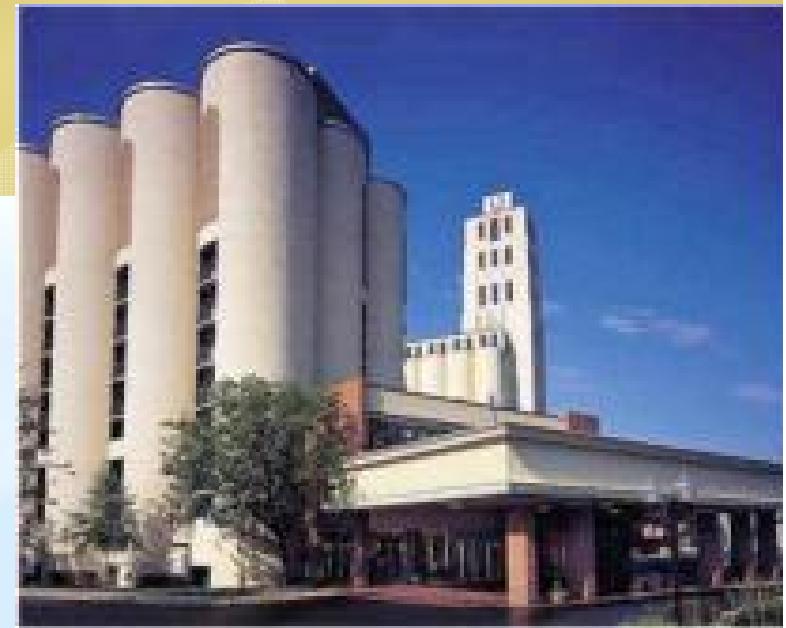
# Lessons learned . . .

- 1. Assemble “weak” assets to create strengths.**
- 2. Organize “guerrilla” entrepreneurial talent.**
- 3. Identify and coalesce uncommon, synergistic partners.**
- 4. Involve city and community as integral partners.**
- 5. Coordinate closely with other regional assets to pursue unique opportunities.**

# Lessons learned . . .

6. **Expand concept of university's product line and “tool chest.”**
7. **Focus university efforts on relevance, connectivity and productivity.**
8. **Recognize and resolve:**
  - Conflict of egos,
  - “Partnering Paranoia,”
  - Relationship fatigue, and
  - Relinquishing short-term control to gain long-term leverage.
9. **Become “silo busters.”**

# Silo Busting



# 21<sup>st</sup> Century Role of Universities . . .

- Key role in knowledge-conceptual economy
- Convener
- Developer
- As “Anchor” for Clusters of Innovation
  - Generate creative capital
  - Generate knowledge capital
  - Train human capital
  - Build social capital
  - Attract financial capital
  - Preserve natural capital
- Common challenges and models;  
unique opportunities

(from Michael Crow, ASU; Proenza & Zimpher, in preparation)

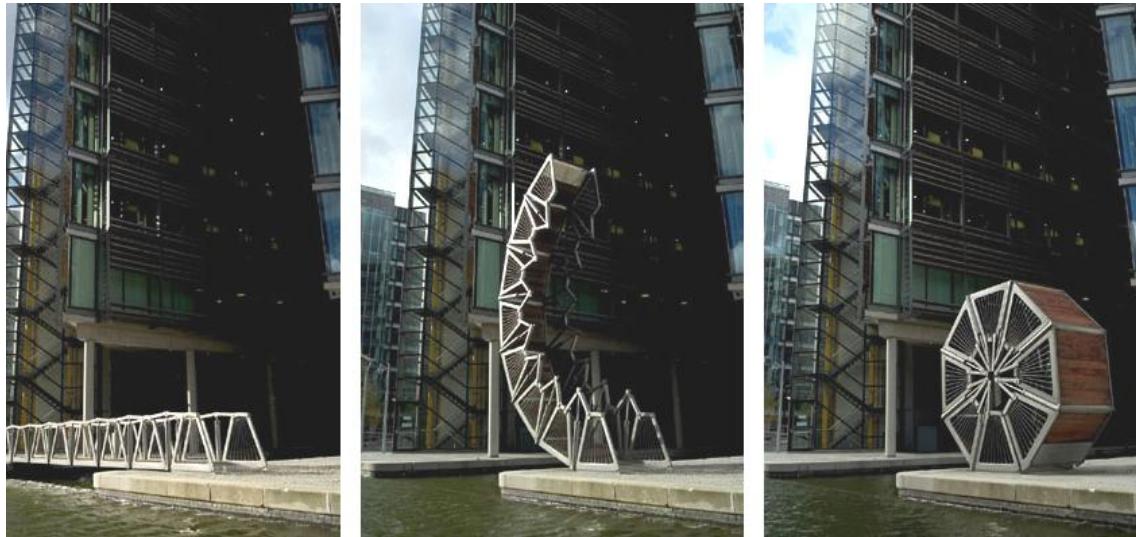
Looking Forward . . .

## Vision 2020

Charting the Course  
to a New Gold Standard



# Wanted: Visionaries and Innovators to build a Bridge to the Future



Aspire. Attain.  
Advance.

# Thank you

The<sup>★</sup>  
University  
of Akron

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