

ERIK ACTION and INTERREGIONAL COOPERATION – Upgrading the Innovation Capacity of Enterprises through Interregional Transfer

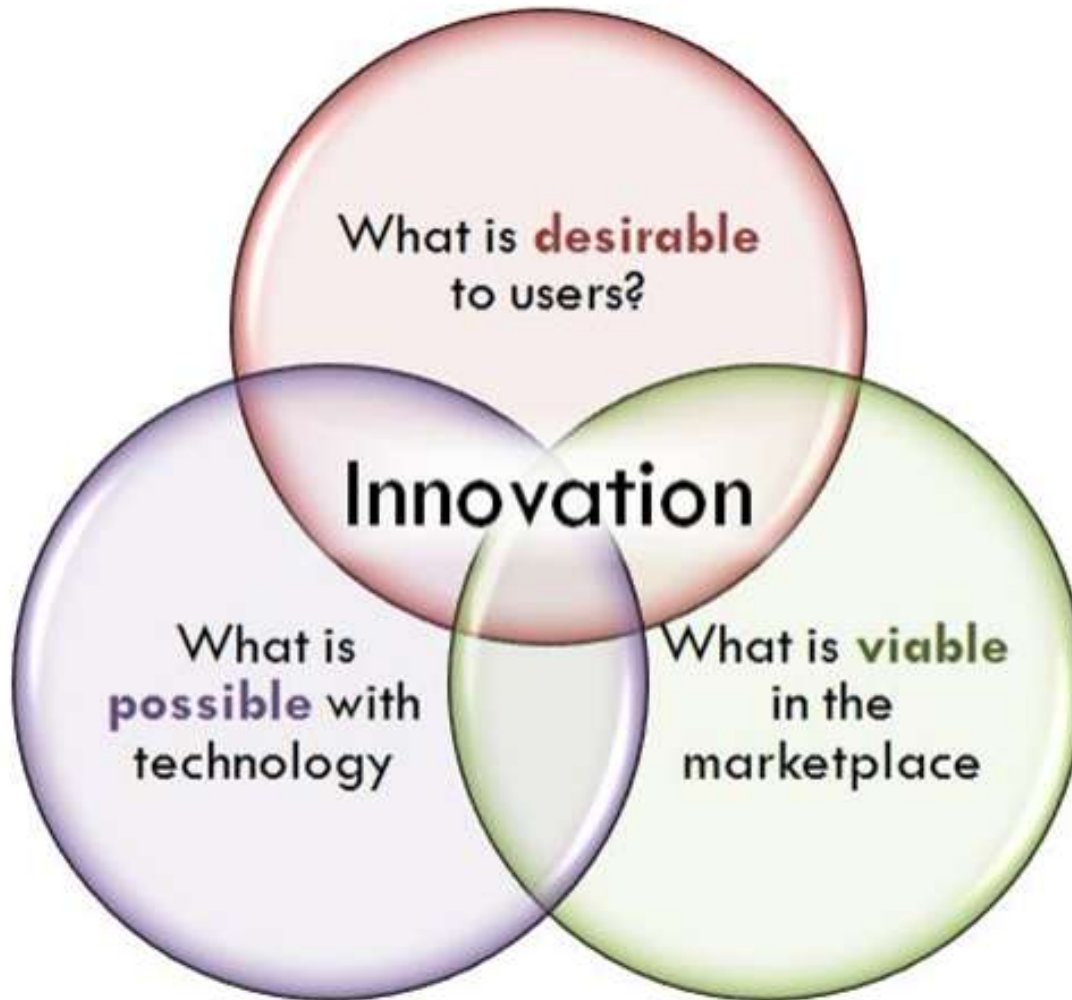
Tuesday 11 May 2010 – Palazzo degli Affari, Florence, Italy

Good Practices from the USA

Richard A. Bendis
President & CEO
Innovation America
May 11, 2010
Palazzo degli Affari
Florence, Italy



Innovation Questions



Kathleen Diener - Frank T. Piller

The Market for Open Innovation

Increasing the efficiency and effectiveness of the innovation process

A funnel-shaped graphic filled with numerous small logos and brand names, including Sprint, IdeaLab, Wiforce, and others. The funnel narrows towards the bottom, symbolizing the selection process in innovation.

A market study of intermediaries facilitating the integration of external actors and information from the firm's periphery in the innovation process

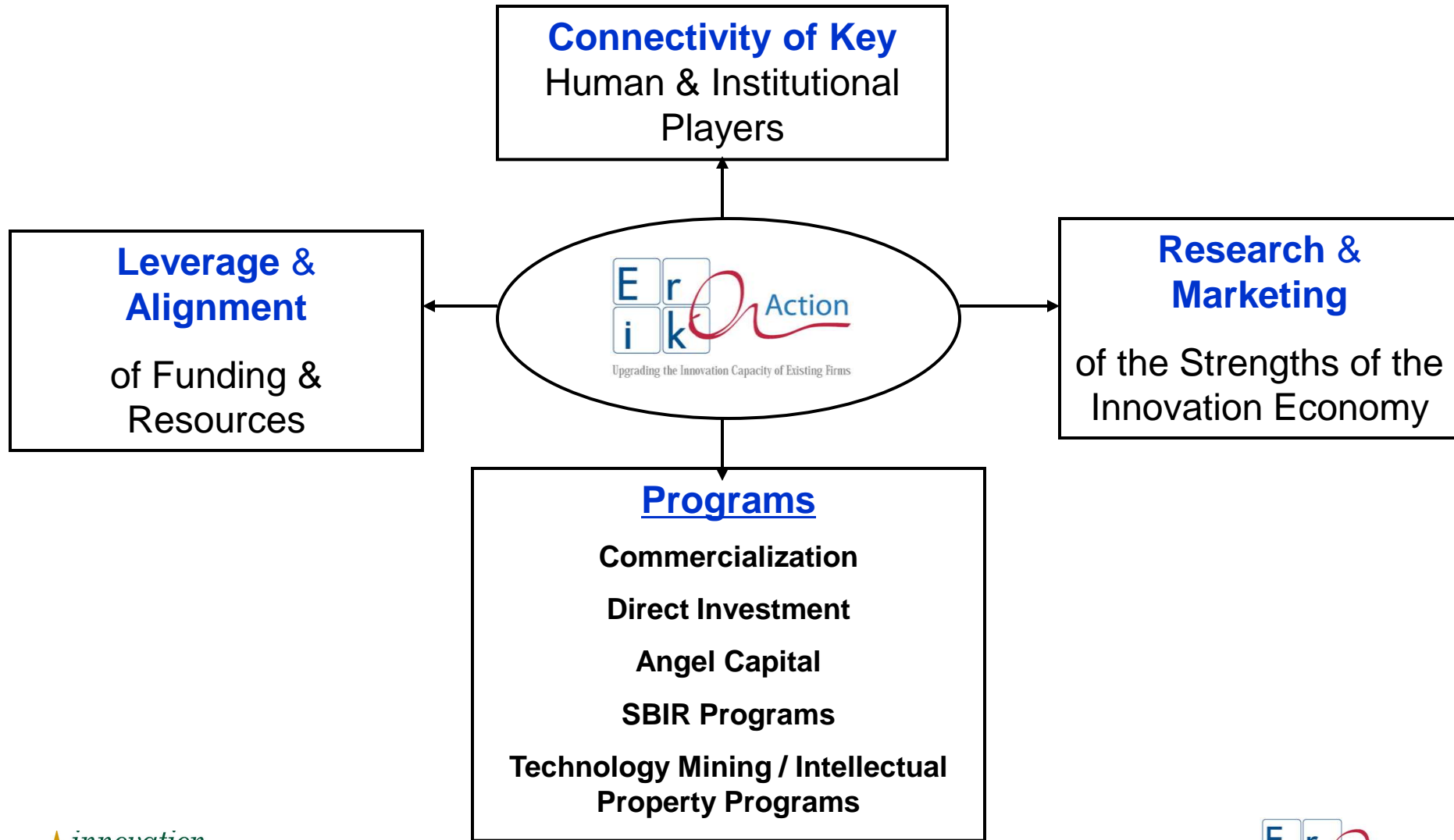
RWTH AACHEN UNIVERSITY | TECHNOLOGY AND INNOVATION MANAGEMENT GROUP | SCHOOL OF BUSINESS AND ECONOMICS

What is an Innovation Intermediary?

- An Organization at the Center of the region's, state's or country's efforts to align local technologies, assets and resources to work together on advancing Innovation.



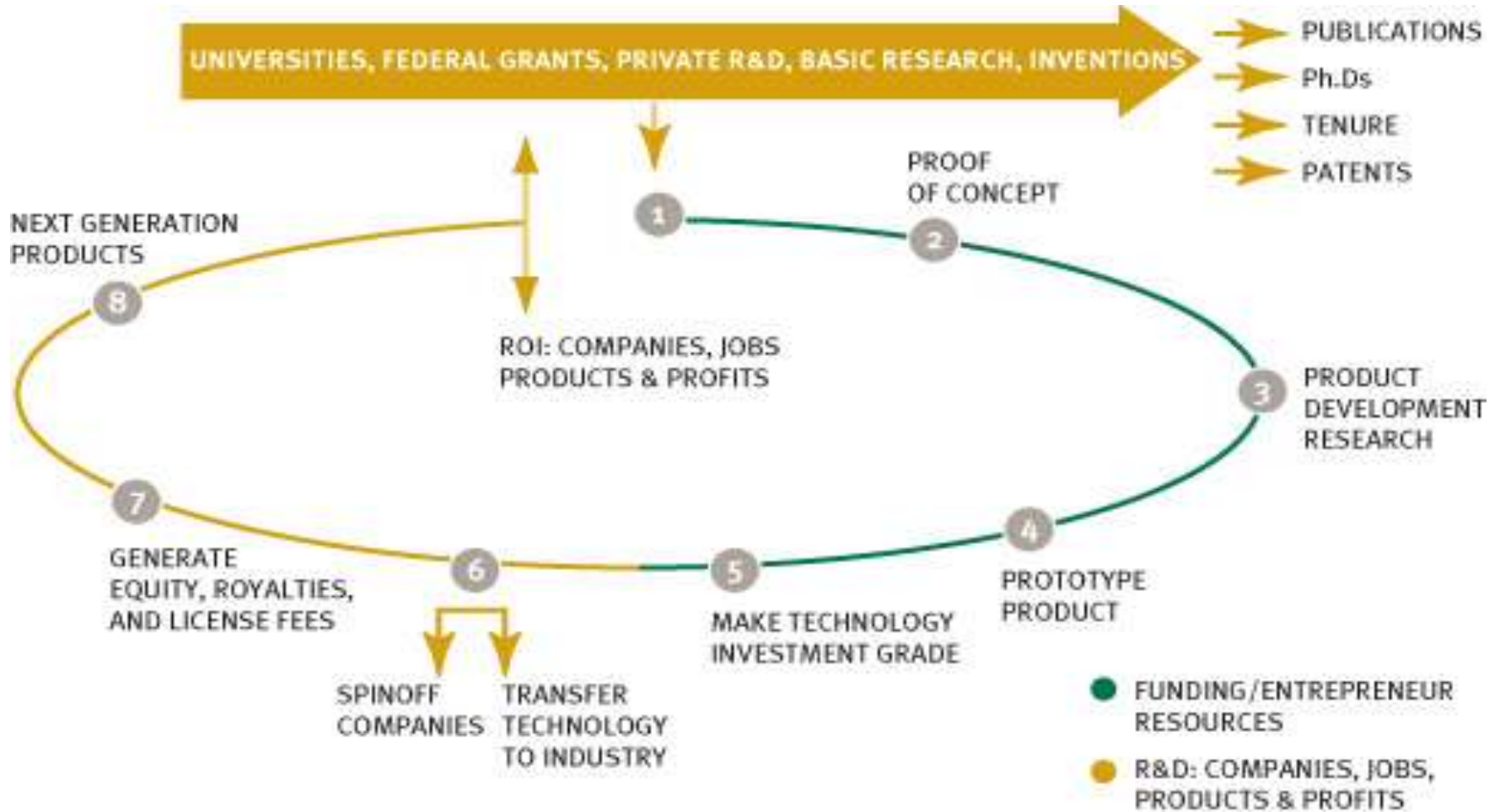
21st Century Innovation Intermediary



Innovation Intermediary Commercialization Structure

Investigation	Technical	Market	Business
Proof of Concept	Technology Concept Analysis	Market Needs Assessment	Venture Assessment
Development Phase			
Feasibility	Technology Feasibility	Market Study	Economic Feasibility
Planning	Engineering Prototype	Strategic Marketing	Strategic Business Plan
Introduction	Pre-Production Prototype	Market Validation	Business Start-Up
Commercial Phase			
Full Scale Production	Production	Sales and Distribution	Business Growth
Maturity	Production Support	Market Diversification	Business Maturity

Innovation Commercialization Model



U.S. Regional IBED Intermediaries



10 Reasons (Some) SME'S Underperform

1. **Passion**
2. **Physical and mental strength**
3. **Self-doubt**
4. **Belief**
5. **Foresight**
6. **Guts**
7. **Failure**
8. **Self-discipline**
9. **Fairness**
10. **Integrity**



“The Perfect Storm”

Reduced Angel Activity

- Angel Investors reduced their investments in 2009 Q1/Q2 by over 27%
- Availability of investment capital among angels decreased dramatically by 50% in 2009

Venture Funding Moving Downstream

- The average investment by venture firms last year was \$8.3 million per investment and only about 4% of the capital went to early-stage companies.
- First Quarter of 2010 was the worst quarter in 12 ½ in terms of total capital invested by venture firms

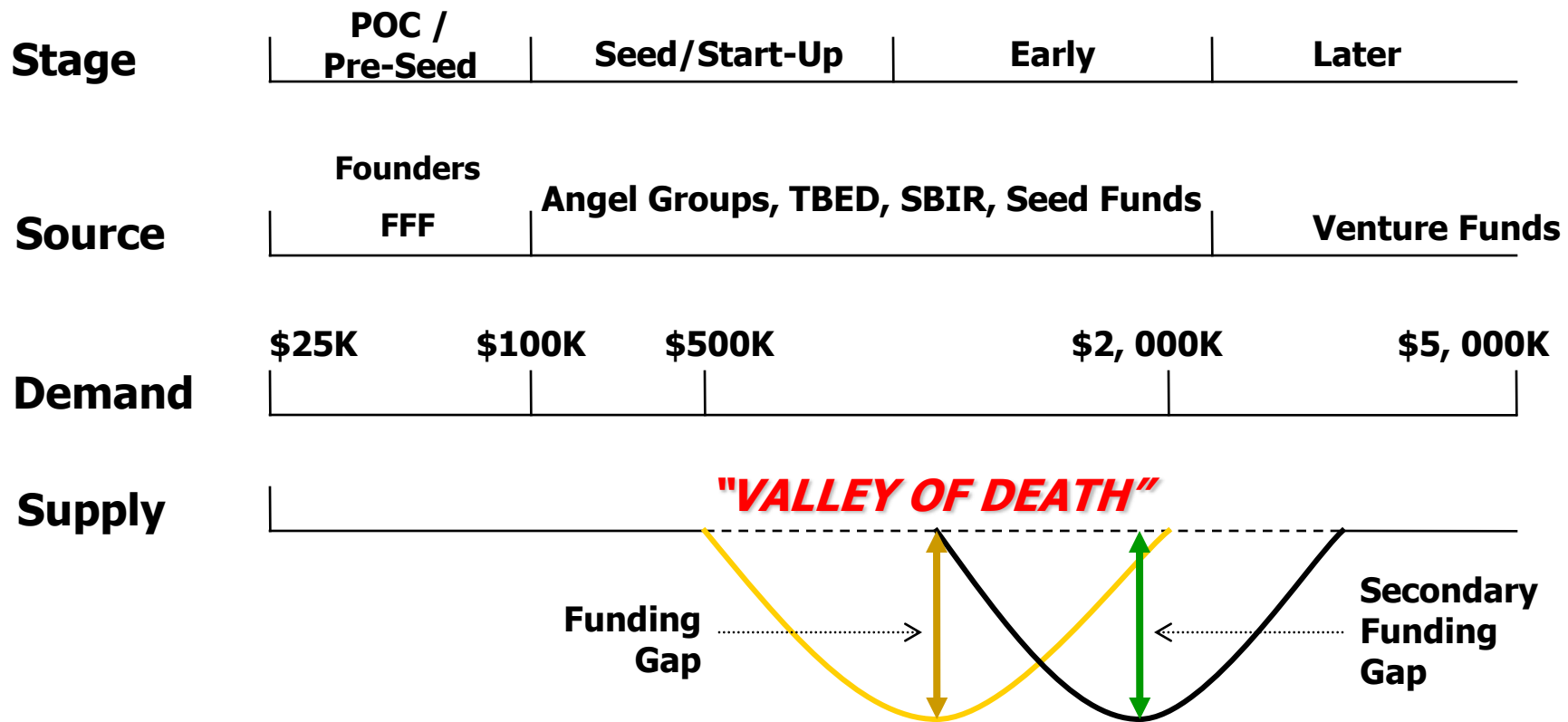
State TBED Budgets Decreasing

- 44 states have budget deficits



Innovation Capital Valley of Death

“VALLEY OF DEATH”



US Angel Capital Programs



CommonAngels™



Note: 29 states with Angel Capital Tax Credit Investment Programs

Jobs! Jobs! Jobs!

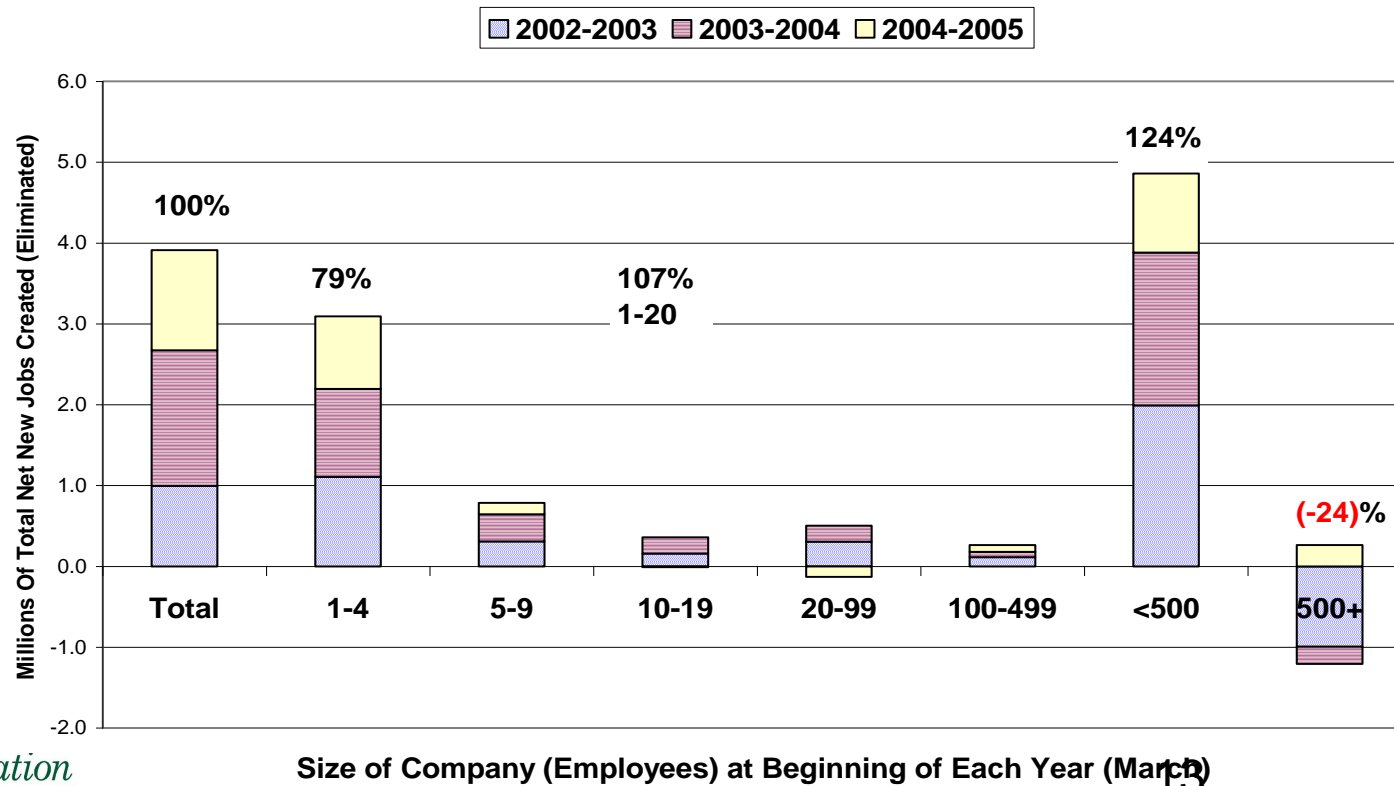
Does Seed Investing **REALLY** Create Jobs?



2001 Recession: Small Business Drives Job Creation

- In the three years after the 2001 recession, Companies of less than 20 employees created 107% of net new jobs while companies over 500 employees eliminated a net of -24%

Total USA Cumulative Net New Job Creation 2002 to 2005
(In The Three Years After The 2001-2002 Recession)



Public Investment Job Creation

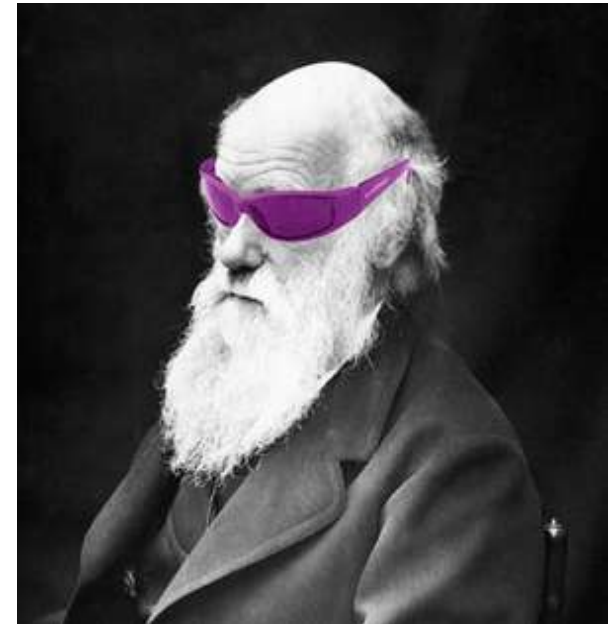
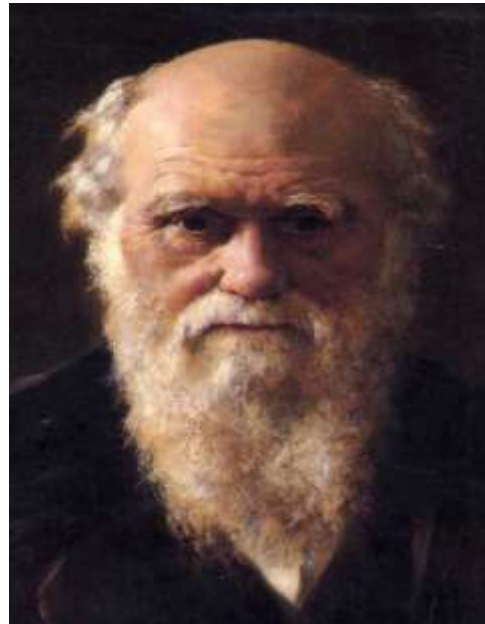
Category	State of PA	CDVCA*	State of UTAH	Stimulus Bill
Funds Invested	\$90M	\$26M	\$60M	\$800B
Jobs Created	8,150	3,700	2,047	4,000,000
\$ Per Job Invested	\$11,000	\$7,100	\$29,300	\$200,000

* Community Development Venture Capital Assoc.

Change Is Inevitable

“ It is not the strongest of species that survive, nor the most intelligent, but the ones most responsive to change.”

-Charles Darwin



Innovative Entrepreneurial Support Initiatives



- Seed Funding
- A Collaborative work space
- Mentors and Advisors who have "been there and done it" before
- Donated legal, accounting and administrative help to form companies properly
- Introductions to funding sources (including Angel Investors, Venture Capitalists, private investors and public sources of funding)

U.S. State Innovation Councils



big Business Innovation Growth



Upgrading the Innovation Capacity of Existing Firms

IBED Best Practices, Common Attributes

- Longevity
- Bipartisan Support & Champions
- Independent Organizations
- Continuous Reinvention
- Private Sector Involvement
- Understand Return On Investment
- Sustainability In Funding
- Accountable
- Innovative
- Effective Leadership

U.S. State IBED Programs



Ohio

Third Frontier
Innovation Creating Opportunity



OCAST



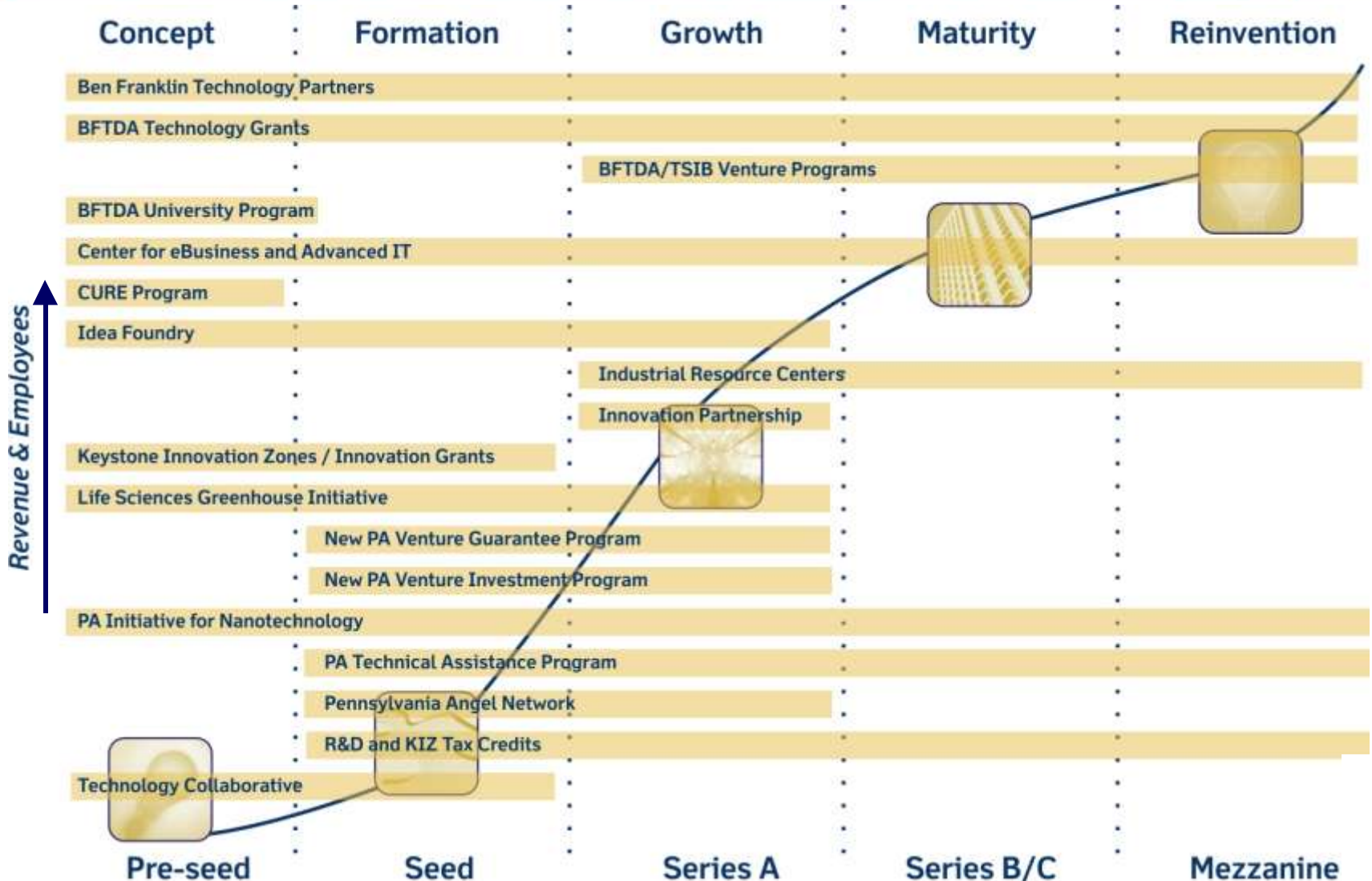
Pennsylvania's Industry Clusters



Technology Investment

Technology-based Economic Development Tools Along the Continuum

> ready > set > succeed



Best Practices in IBED

Ohio

Third Frontier
Innovation Creating Opportunity

The Ohio Third Frontier represents an unprecedented and bipartisan commitment to expand Ohio's technological strengths and promote commercialization that leads to economic prosperity throughout Ohio. Designed to build world-class research programs, nurture early-stage companies, and foster technology development that makes existing industries more productive, Ohio Third Frontier creates opportunity through innovation.

"Ohio's \$700M Third Frontier initiative is a comprehensive, professionally run effort to build world-class research capacity, promote interaction between research and industry, and commercialize R&D." –

National Governor's Association and Pew Center for the States

hi velocity



innovation
AMERICA

Erk Action
i k

Upgrading the Innovation Capacity of Existing Firms

Kansas Technology Enterprise Corporation



www.ktec.com

KTEC Mission:

“To create, grow and expand Kansas enterprises through technological innovation.”

Kansas Strategic Technology Cluster Assessment and a Plan for the 21st Century



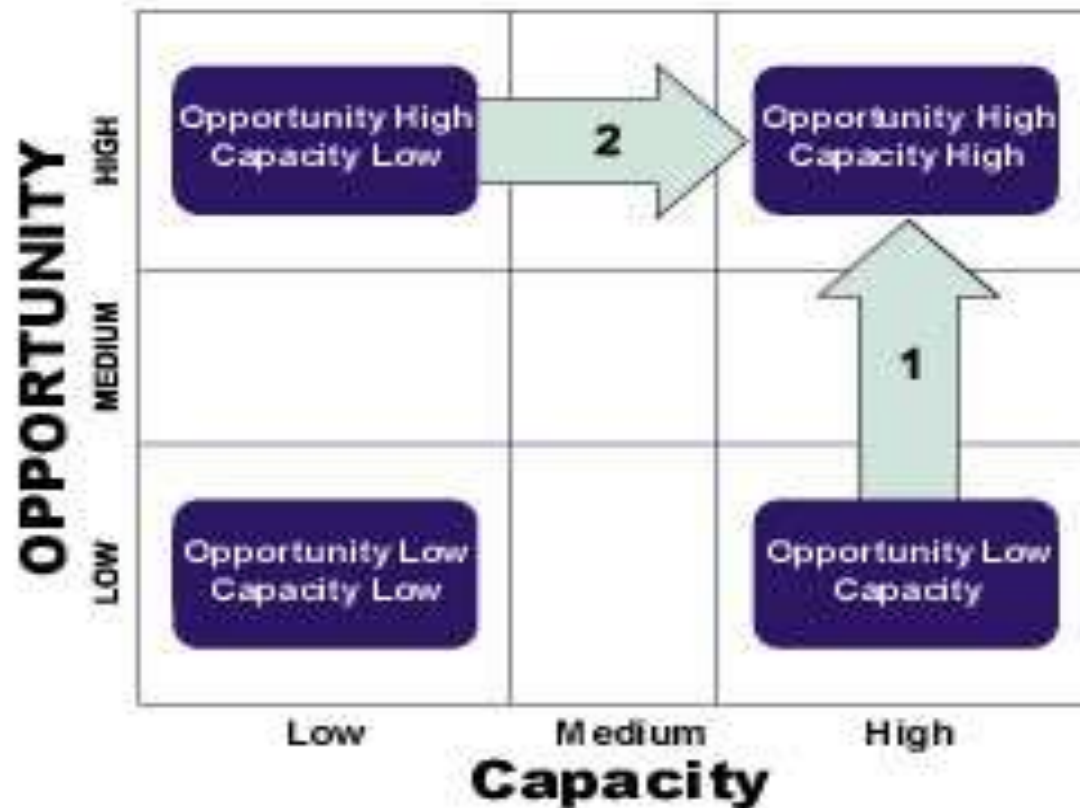
Purpose of the Study:

- Technology revolution affecting the economy.
- We must map our course in this new innovation economy.
- Focus our resources on strategic technology clusters in order to compete.

Published by The
Kansas Technology
Enterprise Corporation

Linking Opportunity With Capacity

- Standardized rating system
- Determine level of capacity and opportunity for critical technologies



Board of Directors

KTEC Program Structure

KTEC Staff

Federal Initiatives and Partnerships

Research

For Inventors, Entrepreneurs and
University & Industry Scientists

- Advanced Manufacturing Institute (AMI)
- Kansas Polymer Research Center (KPRC)
- Information Technology & Telecommunications Center (ITTC)
- Higuchi Biosciences Center (HBC)
- National Institute for Aviation Research (NIAR)
- EPSCoR

Investments

For Inventors, Entrepreneurs and
New & Existing Companies

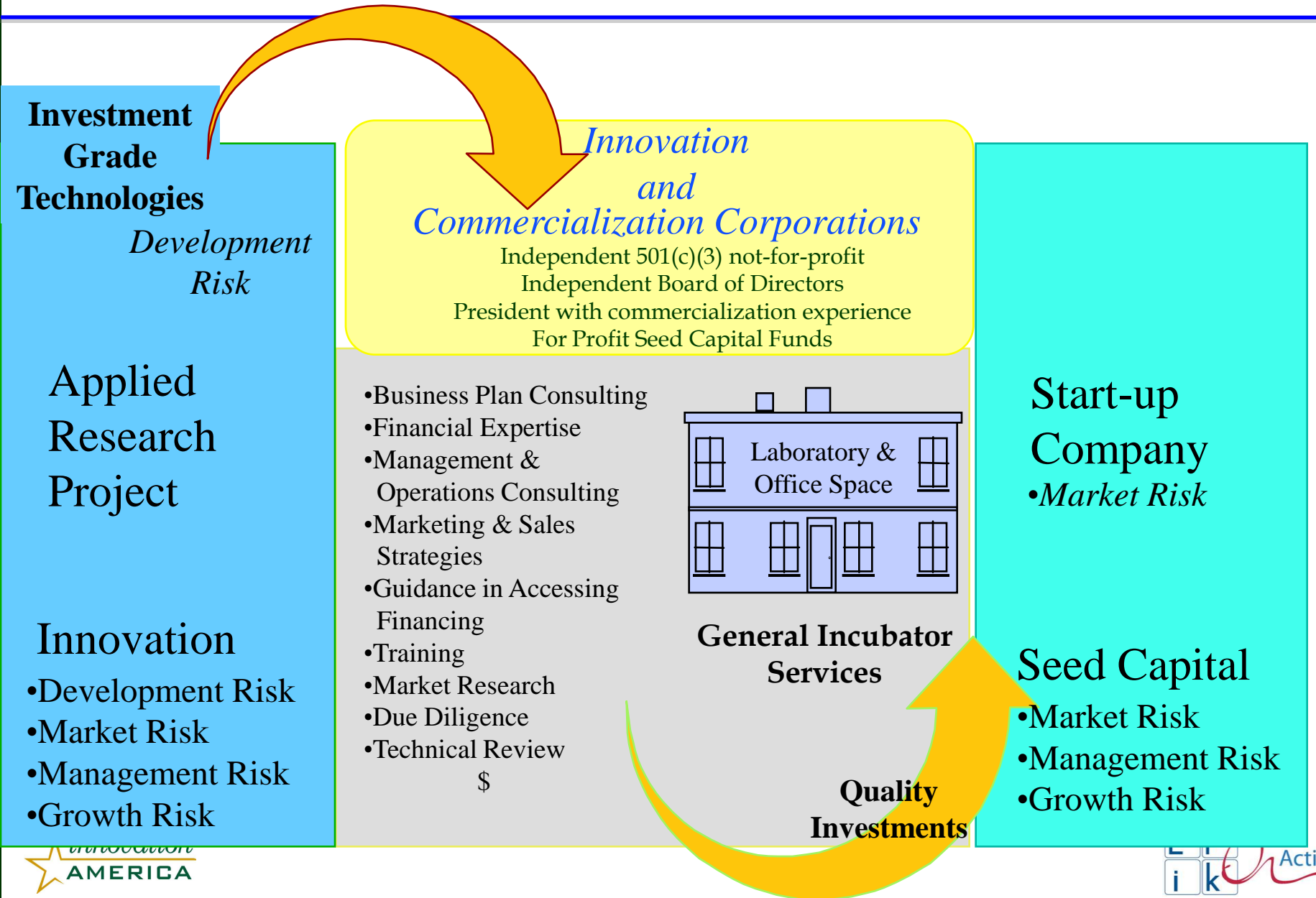
- Small Business Innovation Research (SBIR) Awards
- SBIR Bridge Funding
- State-Sponsored SBIR
- Applied Research Matching Fund (ARMF)
- ACE-Net
- Ad Astra Funds I & II
- Kaw Holdings (KIC)
- Wichita Ventures (WTC)
- Manhattan Holdings (MACC)
- Prairie Investments
- Quest Ventures
- KU Medical Center Research Institute Pre-Seed Fund
- Alliance for Technology Commercialization

Business Assistance

For Inventors, Entrepreneurs, Scientists
and New & Existing Companies

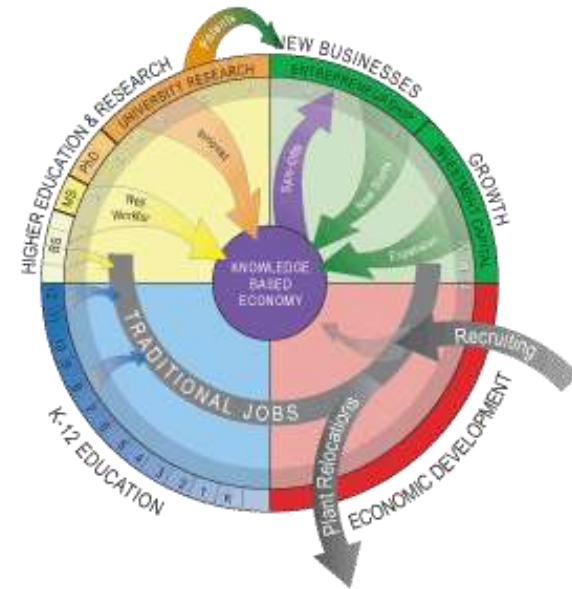
- Kansas Innovation Corporation (KIC)
- Mid-America Commercialization Corporation (MACC)
- Wichita Technology Corporation (WTC)
- Mid-America Manufacturing Technology Center (MAMTC)
- Capital for Manufacturers (CFM)
- Information Research Corp. (IRC)
- Kansas Integrated Commercialization Information Network (KICIN)
- Intern Program
- Business Residency Program
- Inventor Development Assistance Program (IDAP)

ICC's Expand the Life Cycle



Kansas Bioscience Authority

- \$581 million state-funded independent bioscience TBED organization
 - \$75.5 million program budget; \$3.5 million operating budget
 - 18 employees (8 “deal” people)
- Investment priorities
 - Expand the quantity and quality of bioscience research
 - Focus on the commercialization of bioscience discoveries
 - Foster formation and growth of bioscience companies
 - Position Kansas for international leadership in key clusters





KANSAS BIOSCIENCE
AUTHORITY

How the Fund Works

Set Baseline Tax Revenue for
Bioscience Companies (NAICS) and Research Institutions

Measure Actual Incremental Growth
in State Bioscience Taxes

Baseline
to
State General Fund

Increment of Growth
to
Bioscience Fund

Kansas Bioscience Authority
Fund Programs & Repay Bonds

*Repeat
annually
for 15 years*

Partners in Bioscience Growth



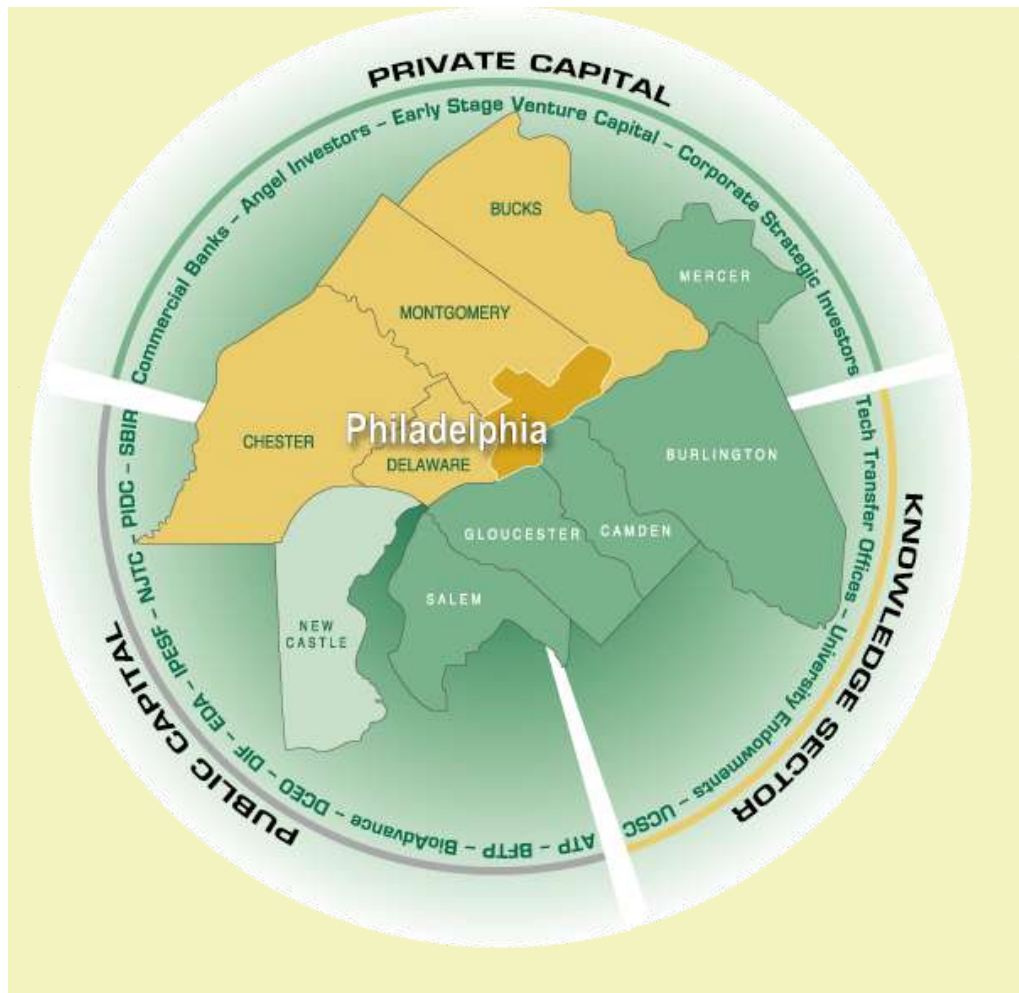
Innovation Philadelphia's Mission



A Public/Private Partnership
created to:

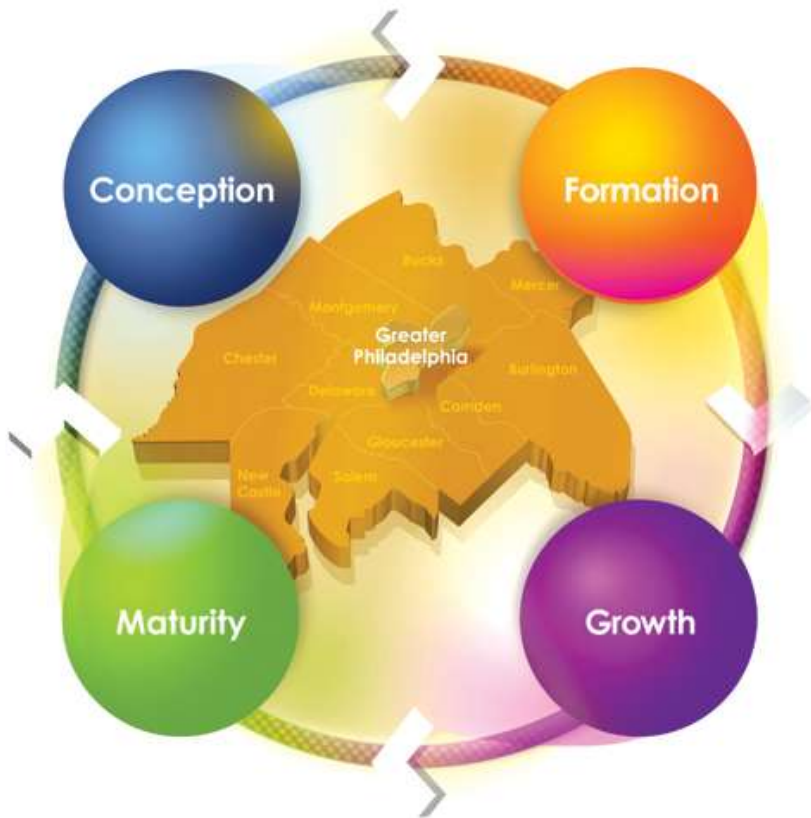
Grow the
Wealth and
Workforce of the
Greater Philadelphia Global
Innovation Economy

Innovation Philadelphia: Leveraging the Resources of the Greater Philadelphia Region



3 states
11 counties

- ❖ **Pennsylvania:** Bucks, Montgomery, Philadelphia, Chester, Delaware
- ❖ **New Jersey:** Mercer, Burlington, Camden, Gloucester, Salem
- ❖ **Delaware:** New Castle



Churning the Greater Philadelphia Innovation Economy

A Roadmap for Regional Growth

“You can always amend a big plan, but you can never expand a little one. I don't believe in little plans. I believe in plans big enough to meet a situation which we can't possibly foresee now.”

– Harry S. Truman

IP Core Products / Services

Investment



Commercialization



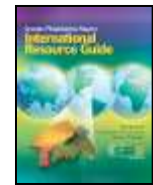
World's Best
Technology Network



Global & Regional Workforce / Economic Development



Branding, Research & Marketing



Knowledge Industry Partnership/CareerPhilly



Knowledge Industry
Partnership

ATTRACT
GPTMC, Campus
Visit/Philadelphia

ENGAGE
Campus Philly, City of
Philadelphia

RETAIN



CareerPhilly

onebigcampus



www.careerphilly.com



- The first Web site dedicated to the career development of students in the Greater Philadelphia Region.
- Provides Regional students with a **search engine** designed to help them find Regional job and internship opportunities.
- A **calendar of events** provides students with a listing of career development and networking activities.
- An **advice** section contains helpful information for students on the many aspects of their career development.

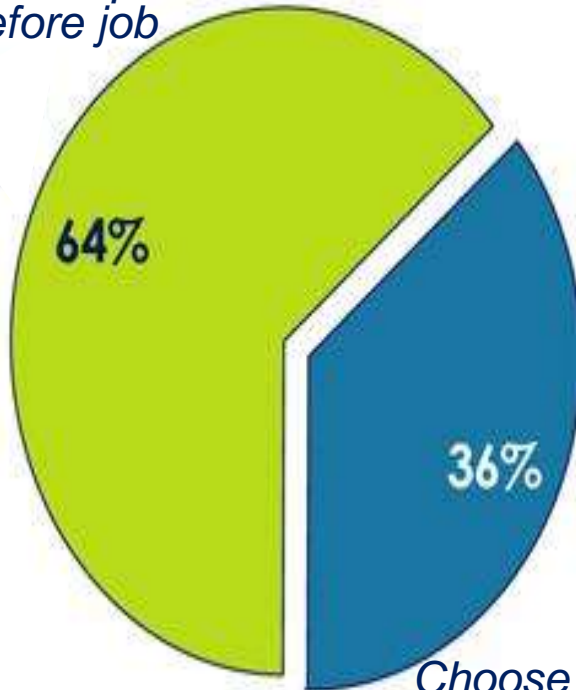
Attracting And Retaining College-educated Workers



Talent is the Currency of the New Economy

HOW GEN-Y DECIDES WHERE TO LIVE AFTER COLLEGE

*Choose place
before job*



*Choose job
before place*

CEOs for Cities

**“Talented individuals
are voting with their
feet
to live in cities where
the work is smart,
culture is cool,
and the environment
is clean.”**

The Washington Post
11.09.03

REGIONAL HIGHER-ED CENTRIC COLLABORATIONS



ThinkIowa



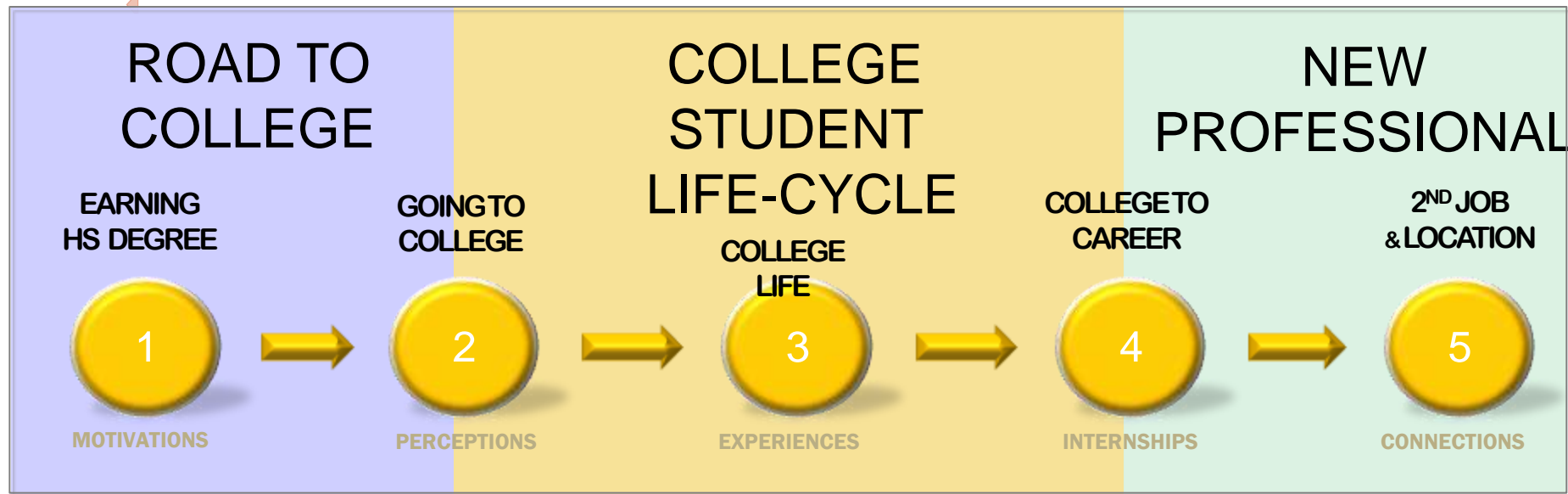
ITHACA
A Classic College Town



LONDONHIGHER



Leveraging the Talent Pipeline



What Worked For KTEC and Innovation Philadelphia

- **FOCUSED & INTEGRATED** Science & Technology Collaboration
- **PRIVATE** Sector Leadership and **COMMITMENT**
- Organization's function as a **BUSINESS**
- Successfully manage a technology investment portfolio for **ROI**
- Operational **FLEXIBILITY**
- **ACCOUNTABILITY** with measurable outcomes
- Experienced **PROFESSIONAL** team
- Focus on the **ENTREPRENEUR'S** needs
- **SUSTAINABLE** Funding



Regional Innovation Clusters Initiative (RICs)

RICs are a geographically-bounded, active network of similar, synergistic or complementary organizations which leverage their region's unique competitive strengths to create jobs and broader prosperity.



Energy Regional Innovation Cluster (E-RIC)



- \$129.7 million over five years to create an Energy Innovation Hub
- Focused on developing new technologies to improve the design of energy-efficient building systems.
- Regional research centers will develop new building efficiency technologies and work with local partners to implement the technologies in area buildings.

Why do RICs Matter?

- They create a transition path from unemployment or underemployment to high-skill jobs.
- On average, jobs within clusters pay higher wages.
- Regional industries based on inherent place-based advantages are less susceptible to off-shoring.
- Create many new job opportunities for American workers.
- They connect disenfranchised communities to new career and educational opportunities.
- They stabilize communities by re-purposing idle manufacturing assets, engaging underutilized human capital, and contributing to improvements in the quality of life.

Regional Innovation Clusters

- Implies bounded area characterized by inherent social, environmental, economic, and cultural assets
- Transcends socio-political boundaries
- May include **urban & rural**



Regional Innovation Clusters

Five Key Components to Consider When Defining Unique Regional Assets

*What you make, including
your existing &
prospective industry
clusters*

**ECONOMIC
BASE**

**ENTRE-
PRENEURSHIP**

*Your capacity to create
companies wholly new or
from existing firms*

*What you do: your
workforce skills &
human capital base*

TALENT

**INNOVATION
& IDEAS**

*Your capacity to innovate
and generate new ideas*

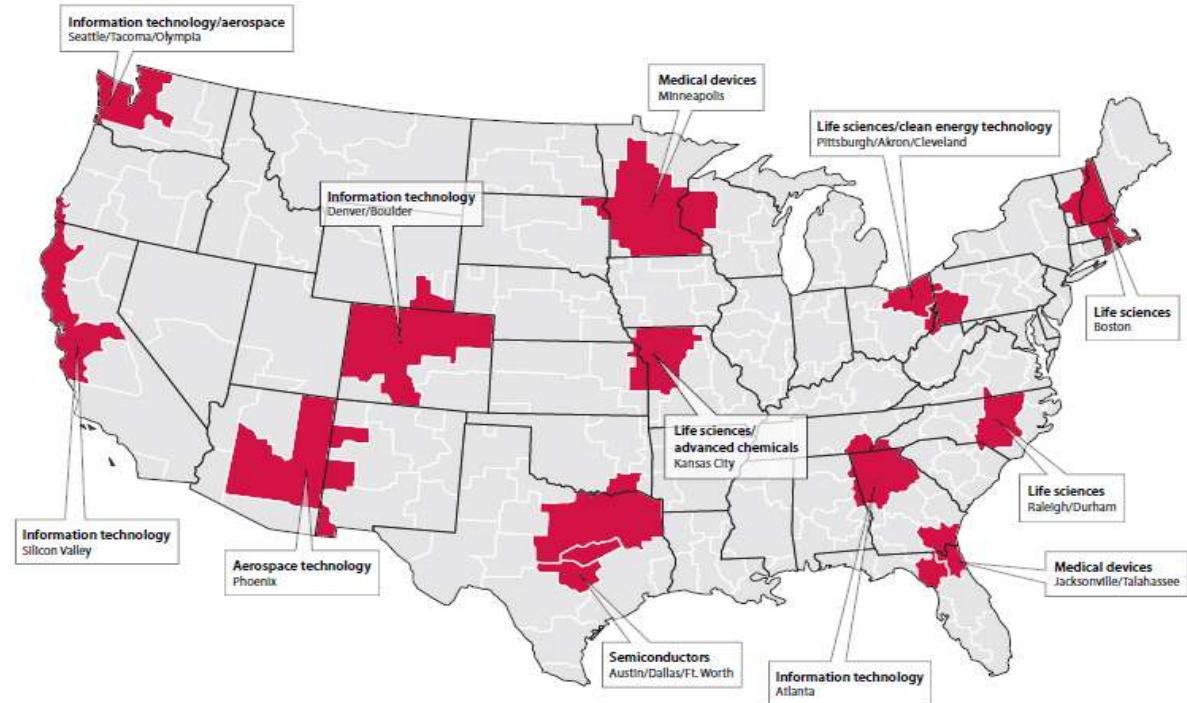
**Location, Infrastructure, Amenities,
Factor Costs, Natural Resources**

*The basic conditions defining the
economic milieu of the region*

RICs Are Diverse

- All parts of the nation
- Can be in wide array of industries
- Vary in size, shape, and reach
- Often cross local, county, and state boundaries
- Urban and rural

A SNAPSHOT OF U.S. INNOVATION CLUSTERS
A selection of high-tech clusters in different parts of our country



Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School. Copyright © 2005 President and Fellows of Harvard College. All rights reserved.

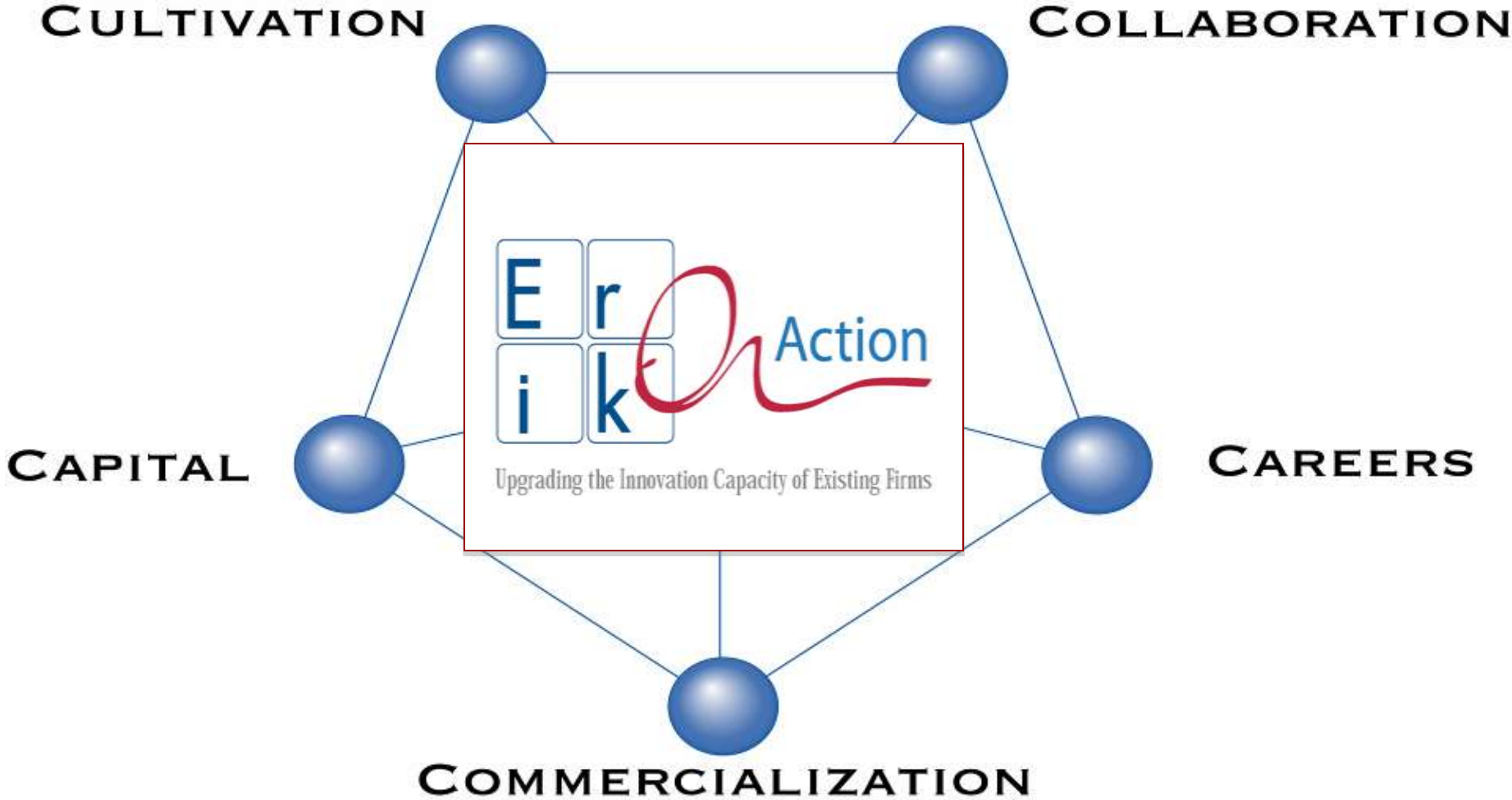
Best Practices in RIC Management

- **Regionally-Led** from existing networks & assets – bottom-up approach
- **Involve partnerships between private and public** at all levels (i.e. local, regional, state, and Federal)
- Unique **strengths of region are built upon** rather than trying to copy other regions (i.e. everyone can't support a biotech cluster)
- **Different strategies are developed for different clusters**
- Well-funded initially and **self-sustaining over the long-term**
- **Linked with relevant external efforts**, including regional economic development partnerships and cluster initiatives in other locations

Key Innovation Road Map Elements

1. **Asset Mapping**
2. **Cluster analysis**
3. **Innovation Benchmarking (Peer 2 Peer)**
4. **Innovation and Entrepreneurship resource identification**
5. **Innovation Economic Development organizational analysis and matrix**
6. **Gap Analysis (programs & services)**
7. **Public policy recommendations**
8. **Recommended organizational structure, governance, budget, and funding sources (Private Public Partnership)**
9. **Organizational leadership and staffing**
10. **Program portfolio/implementation**
11. **Marketing, Branding and Success Stories**
12. **Economic Impact Analysis**

Innovation Paradigm



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The Daily pulse of Global Innovation!

Thu Dec 03 16:09:16 -0500 2009

Innovation vs. "Awesomeness"

This "Awesomeness Manifesto" by Umair Haque hinges on a rather narrow definition for "Innovation" so as to draw a contrast, but lets undermine the whole thing by highlighting the most glaring weakness."

Obsolescence is what's obsolete" means what? For nothing to ever be made obsolete, nothing new and better may be created. Haque appears to dislike the concept of creative destruction becomes some peoples' wealth is destroyed in the process of making new people wealthy... but what's the alternative? Those who are presently rich and powerful must be allowed to stay that way? Societal calcification. Stagnation. Creative destruction isn't perfect, but generally, over time, what is destroyed is less valuable than what is created. That's not a waste of our seed-corn, that's how it's supposed to be used. Seeds are consumed when you plant them, but the resulting crops are worth more than the seed. Then you collect more seed and start the next round. peoples

[back to top](#)

Can an 'Innovation Economy' Save the U.S.?

We need more political leaders like John F. Kennedy. He envisioned going to the moon and inspired the innovation to make it manifest.



I have got to be honest. I didn't have any idea of what an "innovation economy" had to do with me until yesterday. True, I don't cover business issues normally, sticking to what I know best, which is politics, with the primary focus of foreign policy. But when I was offered the opportunity to attend the Innovation Economy Conference held in Washington, D.C. yesterday, I jumped at the chance. (I tweeted the conference as well.) Because if ever there was a time we need some out of the box thinking on our economy this is it. The event, hosted by The Aspen Institute, Intel, Democracy (a journal of ideas), and The News Hour with Jim Lehrer, I went to check out, expecting to stay for a couple of hours, but ended up staying all day. I by no means caught every speech or break-out session, but what I did witness proved one thing to me. If the U.S. doesn't get moving we're going to be in even more serious trouble.

In this issue

- Innovation vs. "Awesomeness"
- Can an "Innovation Economy" Save the U.S.?
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- Choosing an innovation team
- Dams Failures
- Dare to Be Different: Focus on Innovation
- Global Innovation Matches on EC's plans take from Peter to Bey Paul
- Ireland Launches \$40 Million Seed Fund
- U.S. Share of World Research Community Declines
- 5 Steps to Creating Your 'Geeb' Voice
- Top 10 Social Entrepreneurship Blogs

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Our Mission: To accelerate the growth of the entrepreneurial innovation economy in America.

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