# Science & Innovation-Based Trends in the U.S.


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# The Global Innovation Imperative

- Innovation is Key to Growing and Maintaining a Country's **Competitive** Position in the Global Economy and to address Global Challenges
- **Collaboration** among Small and Large Businesses, Universities, and Research Institutes is Essential for Innovation & Commercialization
- **New Institutions and New Incentives**, are increasingly important to support collaboration and foster innovation
- Competitive advantages are increasingly tied to human capital and innovation
- **Economic growth** is closely related to education/ workforce, energy, climate change, environmental, natural resource, geopolitical issues & entrepreneurship

**INNOVATION MATTERS**

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# How Leading Nations Responding to the Innovation Imperative?

***They are providing four things:***

- High-level Focus
- Sustained Support for R&D: Leveraging Public and Private Funds
- Support for Innovative SMEs
- New Innovation Partnerships to bring new products and services to market

*Note: Many countries and regions are investing very substantial resources to create, attract and retain industries in leading sectors*

# The New Locational Competition

***Definition: The competition for economic activity***

Intense and growing competition among nations and regions for well paid jobs and improving living standards…….

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# Public Support

- 84% of Americans believe there will be a “lot more jobs in the future that require math and science skills”
- 88% agrees that students with advanced science and math skills will have an advantage when it comes to college opportunities
- California: 52% to 27% believe that state policymakers are not making technology and innovation enough of a priority
- 78% of Americans think “a national innovation initiative would be effective”

# Trends In TBED

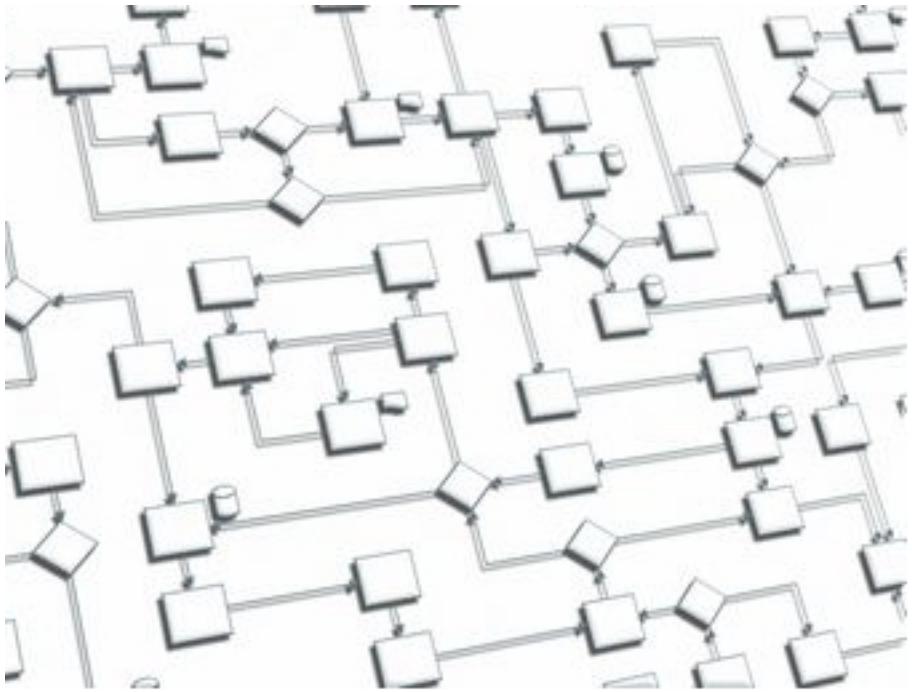
- Cycles of emphasis over the years on different elements; elements continuing on the rise
  - Increasing expectation for community of university research
  - Growth of venture development organizations, private accelerators, and start-up weekends
  - Capital
- Reorganization of economic development efforts
  - Public-private partnerships
  - State TBED orgs merged into state economic development departments
  - Regional emphasis

# Challenges

- A changing economy with a different recovery pattern
- Shortage of skilled workers once recovery in full swing
- Different expectations for higher education
- 28 new governors
- Fiscal pressures
- Federal approaches changing slowly

# Elements for Tech-based Economy

- Intellectual infrastructure
- Spillovers of knowledge
  - from universities
  - from informal networks
- Physical infrastructure
- Technically skilled workforce
- Capital
- Entrepreneurial culture
- Quality of life



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# Lessons Learned

- Committed high-level leadership is required that understands:
  - Economic impact further down the road than other approaches
  - Research does not always succeed
  - Significant cultural differences between actors

- Action should be based on:
  - Understanding of needs, capabilities, and gaps
  - Filling gaps to encourage change in private sector behavior

# Lessons Learned

- Characteristics of successful TBED programs
  - Three hallmarks for long-term sustainability
    - Do good work
    - Measure whether they're doing good work
    - Telling people they're doing good work
  - Champions from more than one sector (ideally all three)
    - Private sector, university, government (gov or legislature)
  - Effective management and staff
  - Entrepreneurial in approach/responding to change

# Innovation Economy: Definitions & Terminology

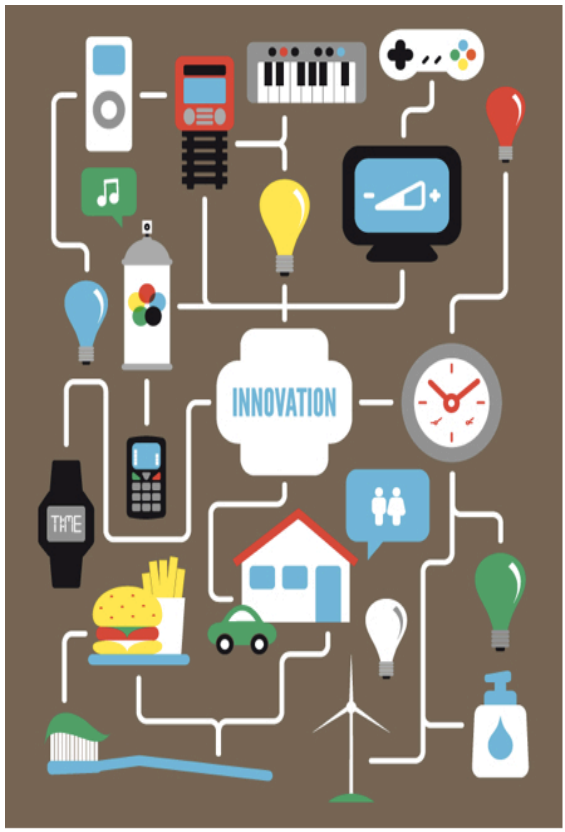
- Knowledge is the confident understanding of a subject, potentially with the ability to use it for a specific purpose

- Knowledge economy is based on creating, evaluating, and trading knowledge

- **INNOVATION** is the creation and transformation of knowledge into new products, processes, and services that meet market need…….and interactions, entertainment forms, and ways of communicating and collaborating

# Creating the Knowledge & Innovation Culture

- Knowledge Acquisition and Deepening – to reinforce science and technology teaching and resources at all levels of education
- Knowledge Creation – Develop Research Capability in all priority sectors of the economy
- Knowledge Transfer – to reinforce Science and Technology Capability in all priority sectors of the economy
- Innovation Culture - To encourage Innovation at all levels to help stimulate economic growth

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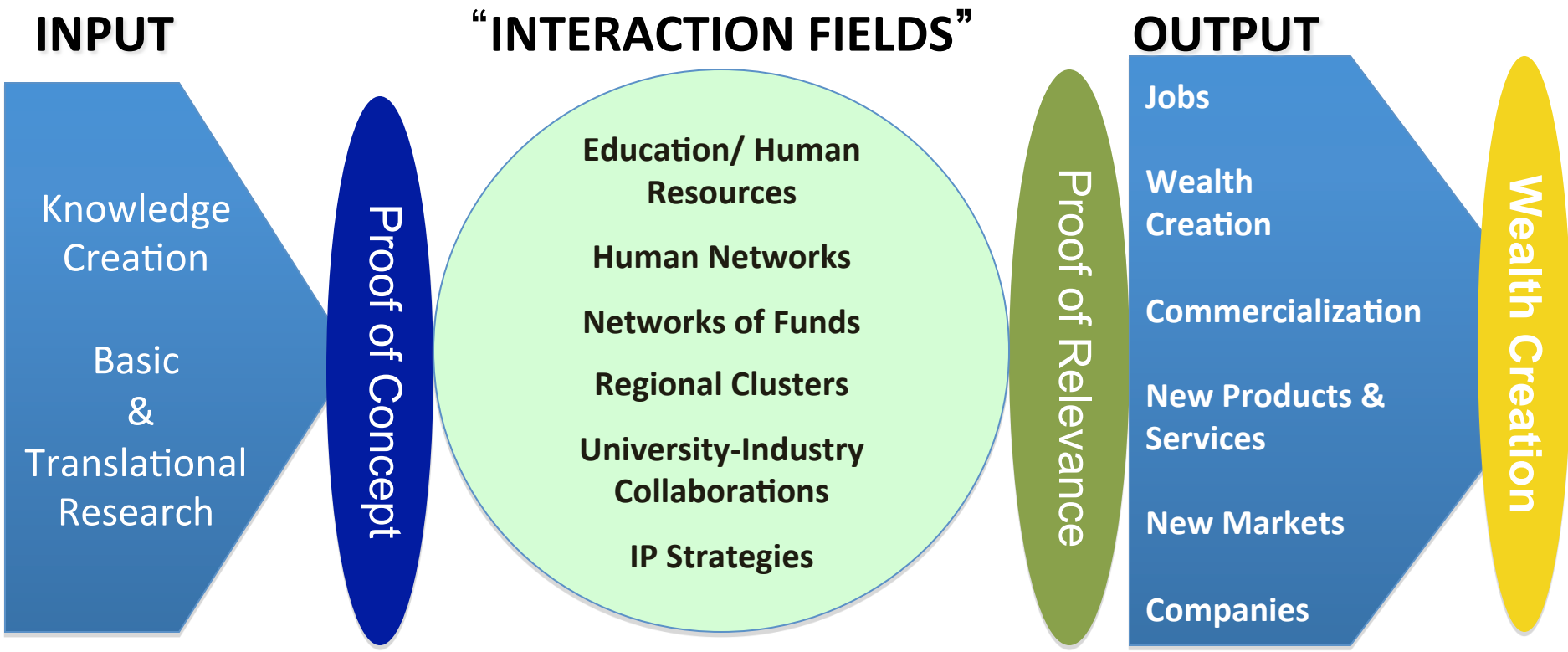
# Innovation Ecosystem




The concept of the **Innovation Ecosystem** stresses that the flow of technology and information among people, enterprises and institutions is key to a vibrant innovation process.

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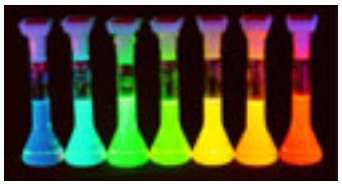
# Implementing a New Innovation Paradigm

- Deviate from traditional perspectives
- Encourage public investment and risk taking
- Develop trust through collaboration
- Ensuring responsiveness to partners' missions
- Build consensus of all constituents through education, participation, and positive outcomes
- Move from TBED to IBED
- **Innovation-Based Economic Development**



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# Triple Helix of Innovation


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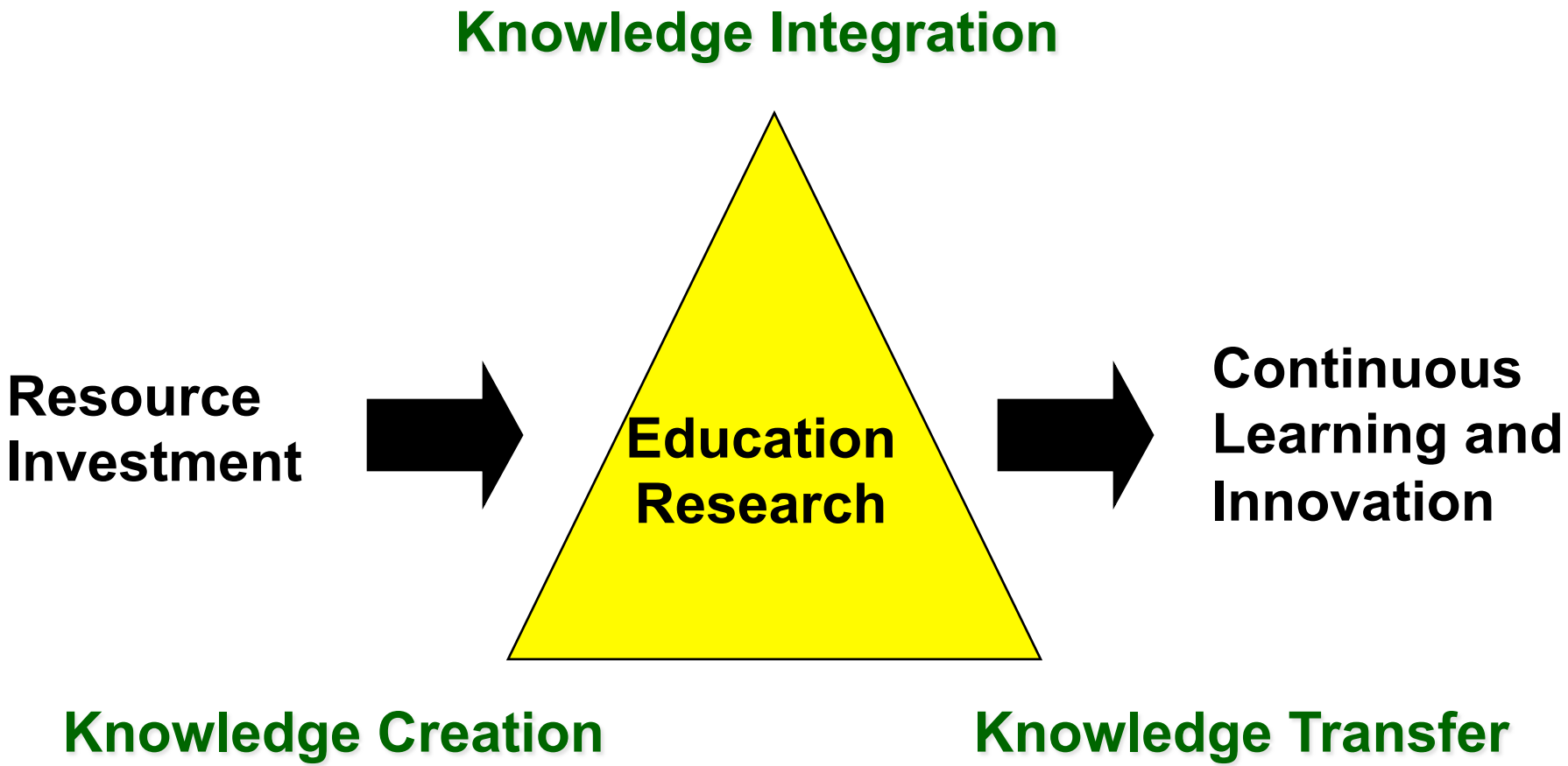
# The Role of Education

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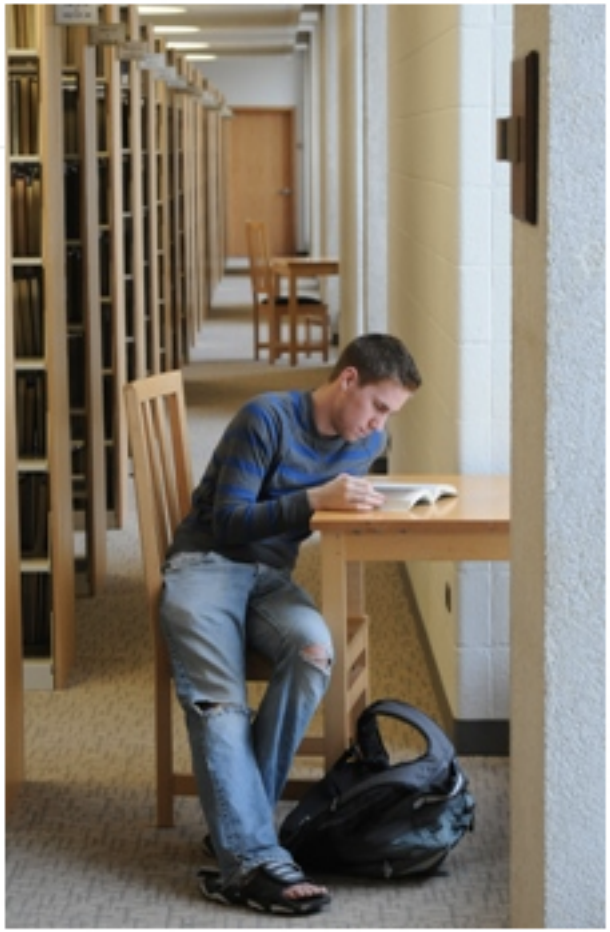
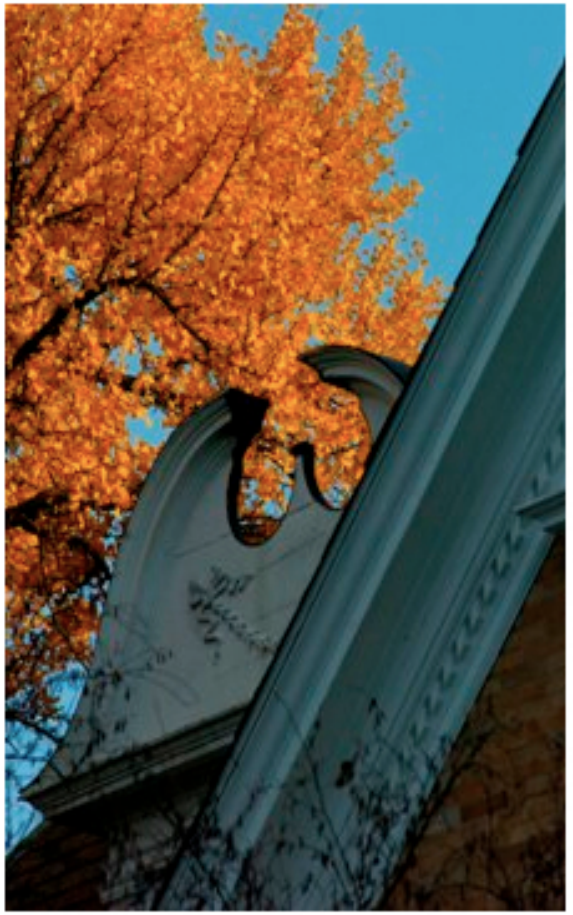
# Importance of Major Research Universities





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# Importance of Major Research Universities

- The primary driver of the future economy and job creation will be innovation, largely driven by science and engineering (Gathering Storm Report)
- Global economic competitiveness requires the confluence of **scientific discovery** that creates **knowledge** and **technological opportunity, workforce talent**, and access to **enabling resources**.
- Universities can contribute to all of these components; over past decade, NE Ohio has embraced this concept and CWRU and its partners continue to both invest in and produce innovation successes.

# Value Creation by University Research Engines

Select contributions of U.S. research institutions to the national economy:

- 2009: >**3,300 patents** issued to universities.
- More than **$40 billion and 270,000** jobs added annually to U.S. economy.
- More than **500 companies formed** annually around university discoveries.
- Impactful products and interventions such as Google and Rituxan



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# Guiding Framework For Universities

## 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

# Challenges for Universities

- Innovation and Entrepreneurship are global and competition will only increase – we must continue to invest in the three key ingredients, people, knowledge and an innovation enabling environment
- Value creation and economic growth through discovery and translation to innovation and commercialization is a complex, non-linear and often lengthy process.
- University support and rewards system for faculty must more effectively support strategies and goals in technology commercialization
- As a key partner, universities must continue to enhance their efficiencies and flexibility in supporting the innovation enterprise

# The Role of Industry: Wealth Creation

## *Capitalism is a Process of Creative Transformation*

"The interaction of technological innovation with the competitive marketplace is the fundamental driving force in capitalist industrial progress."

Joseph A. Schumpeter, 1942

# Government's Role in Innovation

- Long term vision and planning
- Identify gaps and trends in science, technology, innovation and SME development
- **Be a catalyst through long-term strategic investments and partnering**
- Develop a balanced and flexible research and development investment portfolio
- Encourage private sector innovation
- Establish performance-based research and development
- Accelerate the commercial exploitation of creativity and knowledge, through innovation and research, to create wealth, grow the economy, build successful businesses and improve quality of life


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# Federal Programs to Increase Innovation Capital

**R&D Tax Credit Reauthorization (Pending)**

- US ranks **24th out of 38 countries.**
- Provides **$9B in tax relief** to companies and individual - **$10B of R&D** can be supported by a permanent research tax credit.

**National Angel Capital Tax Credit:**

- **20+ states** have tax credits for early stage investment ranging **from 10-50%.**
- Senator Mark Pryor (D Arkansas) has proposed legislation talking about an across the board **25% credit.**
- Advantages to having credits includes **Increases the state's risk capital** market & **stimulates investment in new companies &** creates **new jobs** from startups.

**Patent Reform Proposal:**

- Proposed versions of the Patent Reform would switched U.S. patent priority from the existing **"first-to-invent"** system to a **"first-to-file"** system.

**SBIR/STTR Reauthorization:**

- Increase from **2.5% to 5%** the amount that each federal agency with an extramural research and development budget
- Increase in Phase I and Phase II awards

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# The U.S. SBIR & TIP Program

SBIR / STTR
Small Business Innovation Research
Small Business Technology TRansfer

TIP
Technology Innovation Program

NIST


NSF


U.S. Department of Homeland Security

USDA

NASA

Department of Defense

National Institutes of Health

CDC
Centers for Disease Control and Prevention

**2009 Early-Stage**
**SBIR/STTR = $2.5B**
**VC = $1.7B**

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# Technology Innovation Program

***The Technology Innovation Program (TIP)***


- TIP accelerates innovation through high-risk, high-reward research in areas of "critical national need"
- Aim is to speed the development of high-risk, transformative research
- Targeted to address key societal challenges
- TIP provides funding to universities, small and medium-sized businesses, and consortia for research on promising technologies
- Awards are Merit Based
- Funding provided through cost-shared research grants, cooperative agreements, or contracts

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# Federal Program Opportunities

***I6 Green Proof of Concept Center***

- $12 Million
- Proof of Concept Center
- Proof of Commercial Relevance Center

***Jobs & Innovation Accelerator Challenge***

- $33 million Cluster Program

***USDA ARS Programs***

- Partnership program with the commercialization of Iowa-based ag-tech companies
- Opportunities for joint research programs (CRADAs)
- Joint research increases the likelihood of success in conducting cooperative research between the USDA and Iowa companies
- These agreements can help strengthen state and national economic development and help U.S. businesses compete globally in the marketplace.
- E-RIC

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# Agricultural Technology Innovation Partnership

USDA ARS

United States Department of Agriculture
Agricultural Research Service

## Partnership Intermediary Agreements (PIA) and Technology Transfer

# ATIP

### What is a Partnership Intermediary Agreement (PIA)?

PIAs allow federal research agencies to enter into an agreement with a non-profit organization (partnership intermediary) to assist the federal agency with its technology transfer efforts.

The partnership intermediary's services complement those of the federal laboratory and increase the likelihood of success in conducting cooperative or joint activities between the federal agency and a partnering organization (businesses, universities, or other federal agencies).

These agreements can help strengthen state and national economic development and help U.S. businesses compete globally in the marketplace.

The ARS Office of Technology Transfer (OTT) facilitates and manages PIA agreements for USDA.

### What's in it for the Partnering Organization?

PIAs give the partnering organization access to more than 2,000 ARS researchers located at more than 100 research facilities nationwide—including four state-of-the-art pilot plants located in California, Illinois, Louisiana, and Pennsylvania. The partnering organization becomes part of our Agricultural Technology Innovation Partnership (ATIP). Any business that enters into an agreement with ARS resulting from a PIA partnership becomes an ATIP affiliate. ATIP is a forum created and managed by ARS-OTT that fosters interactions between businesses, universities, and ARS professionals nationwide.

### What's in it for Businesses?

Through the partnering organization, businesses gain:

- marketing assessments and business plan development assistance,
- identification of funding source (state funds, angel investments, venture capital, and SBIR and other federal grants),
- early notification of "ARS Technology Showcase" events,
- access to facilities, equipment and research expertise through formal agreements, and
- assistance in matching USDA technologies with business needs.

### What's in it for ARS?

The partnering organization offers many benefits to ARS researchers, including:

- identifying potential research partners and licensees,
- increasing access to a variety of businesses,
- providing industry perspective on ARS technologies,
- increasing the likelihood of impact from research outcomes,
- identifying potential funding sources for research scientists, and
- expanding customer and stakeholder interactions with the private sector and other federal agencies, e.g., food safety and environmental agencies.

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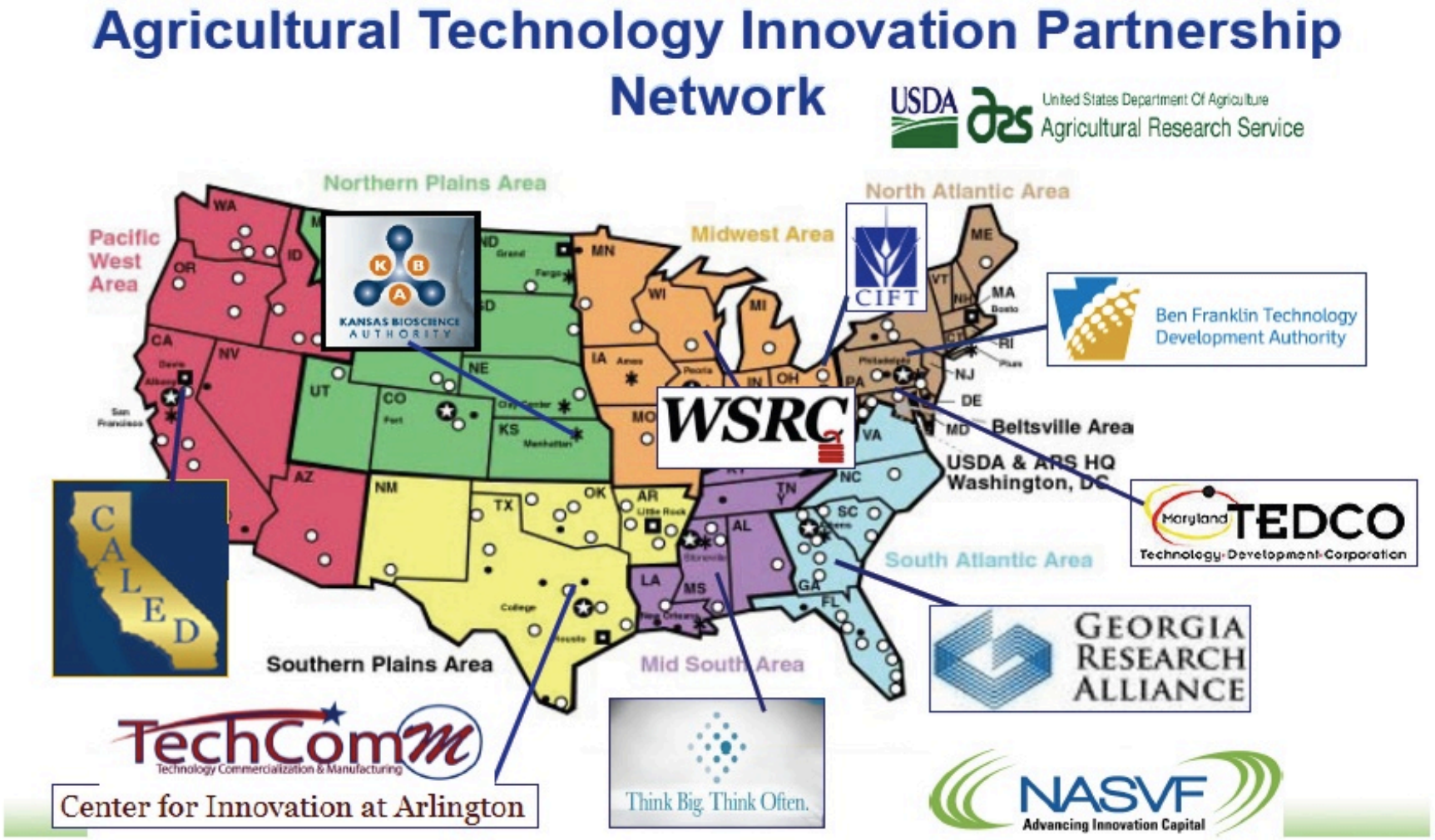
# ATIP Network

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# Regional Innovation Clusters (RICs)

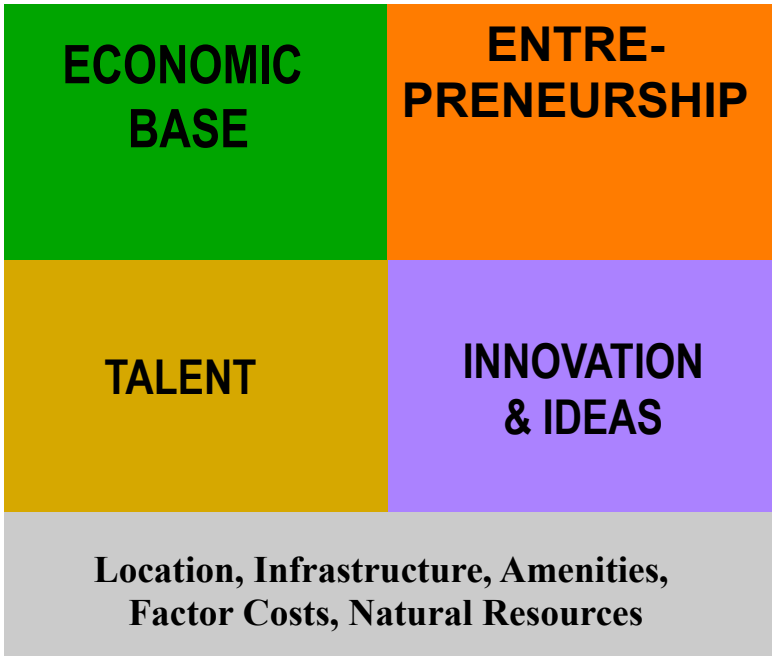
RICs are a geographically-bounded, active network of similar, synergistic or complementary organizations which leverage their region's unique competitive strengths to create jobs and broader prosperity.

# Regional Innovation Clusters

## Five Key Components to Consider When Defining Unique Regional Assets

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

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




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

*Your capacity to innovate and generate new ideas*

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

# 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.

# Federal Role In RIC Development

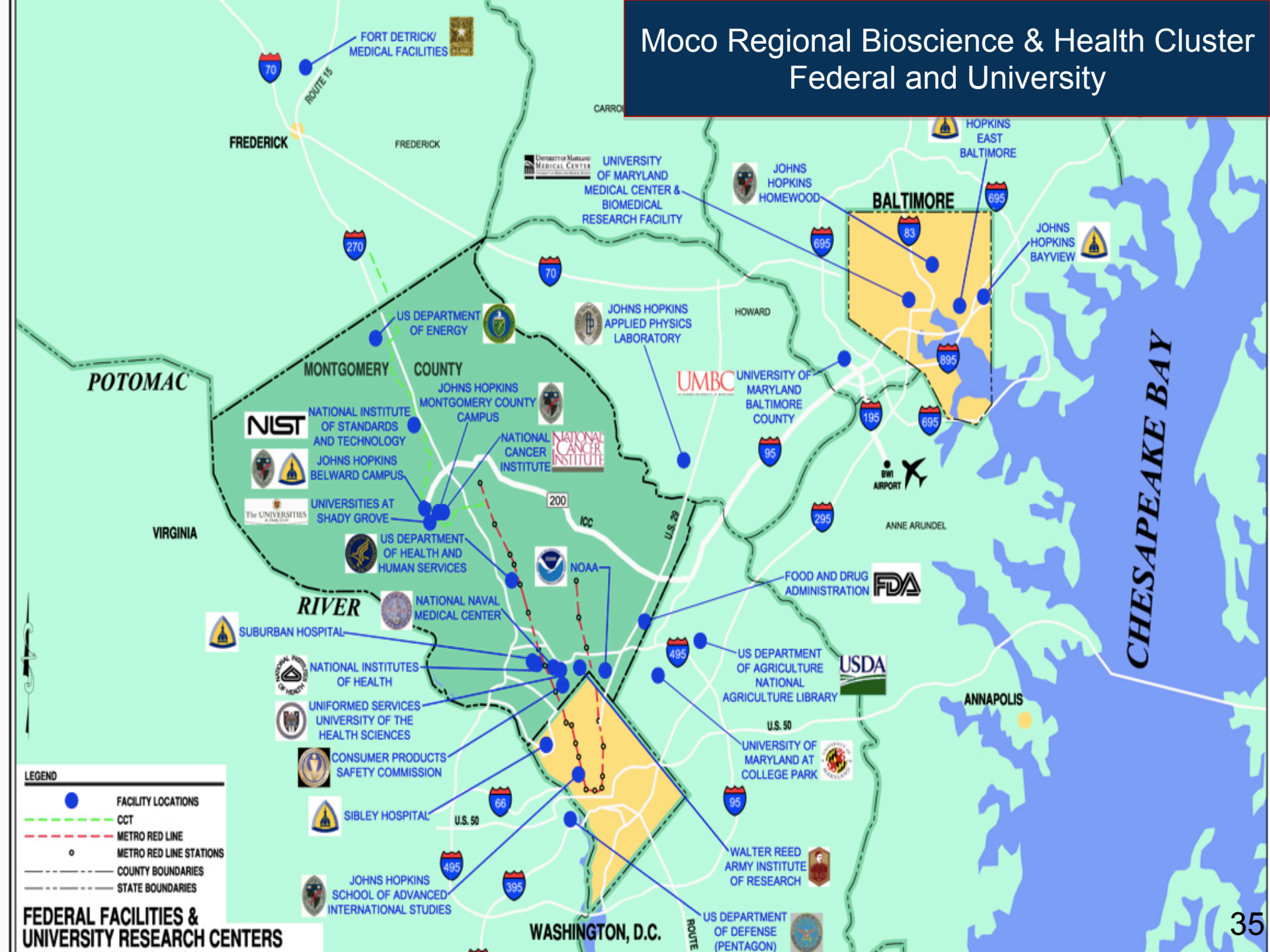
The Federal Government's role is to help self organizing, bottom-up RIC participants become all they can be.

- Identify existing – **NOT** creating new RICs
- Convener of relevant stakeholders
- Creator of overarching framework to support national networks of clusters
- Disseminator of information
- Provider of targeted capital investments

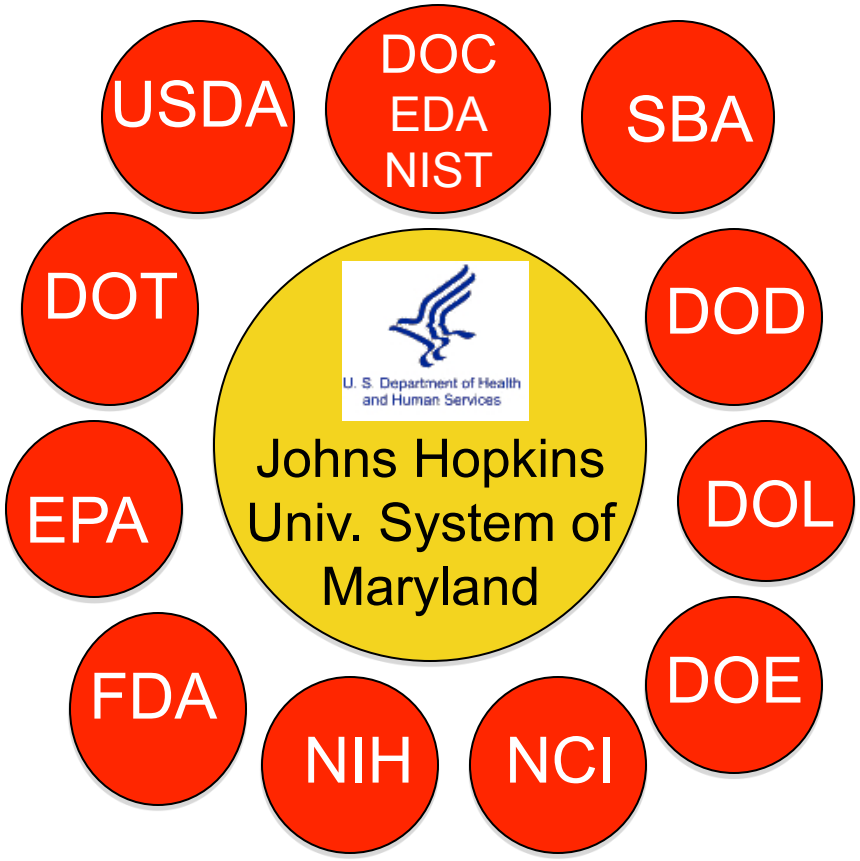
# Best Practices in RIC Management

- **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

# Moco Regional Bioscience & Health Cluster
## Federal and University

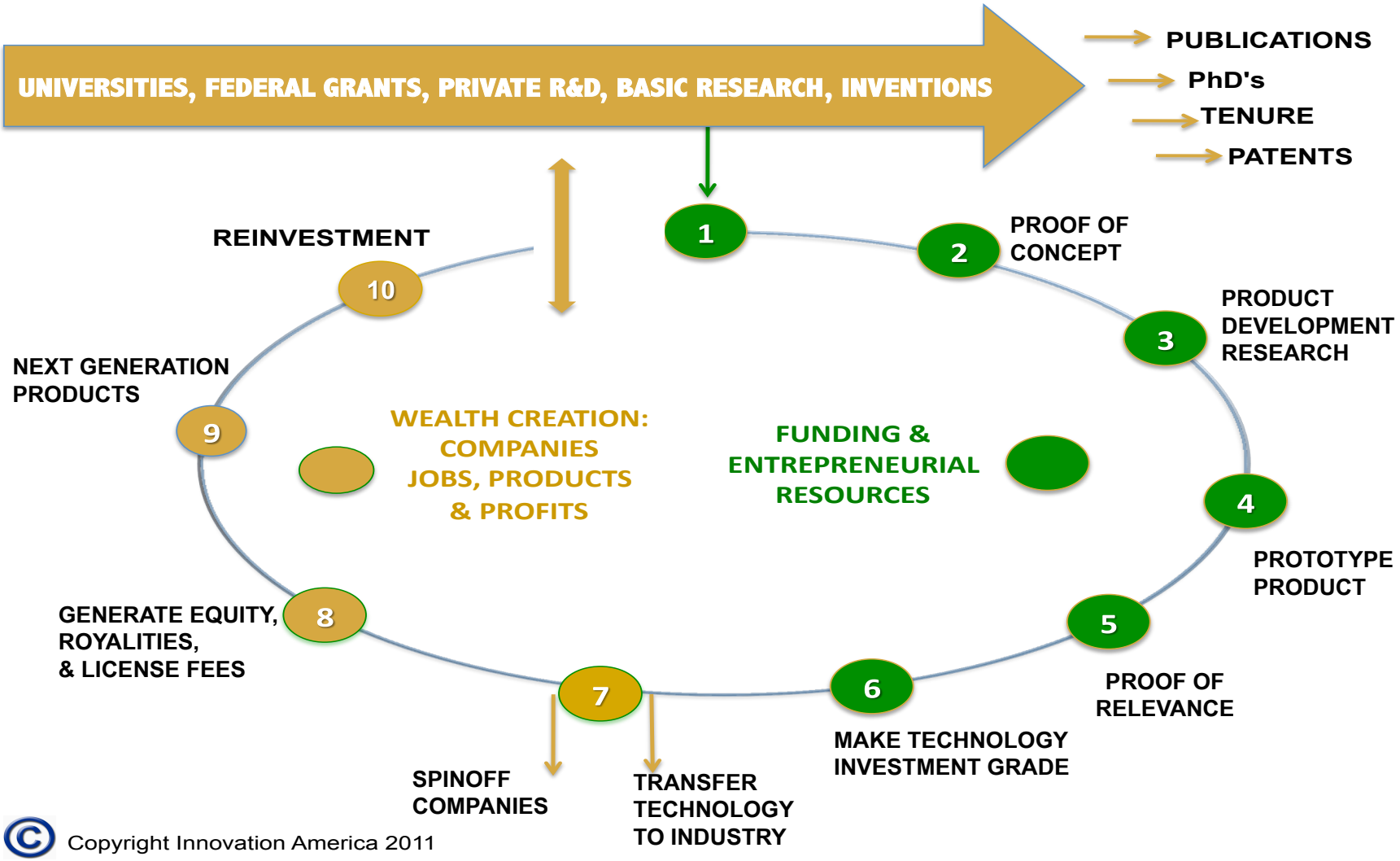


# MoCo Bioscience H-RIC




**Moco and the state would lead a consortium of key industry, academic, foundation, public and NGOs to support the MoCo Bioscience H-RIC.**

# Innovation America Commercialization Model



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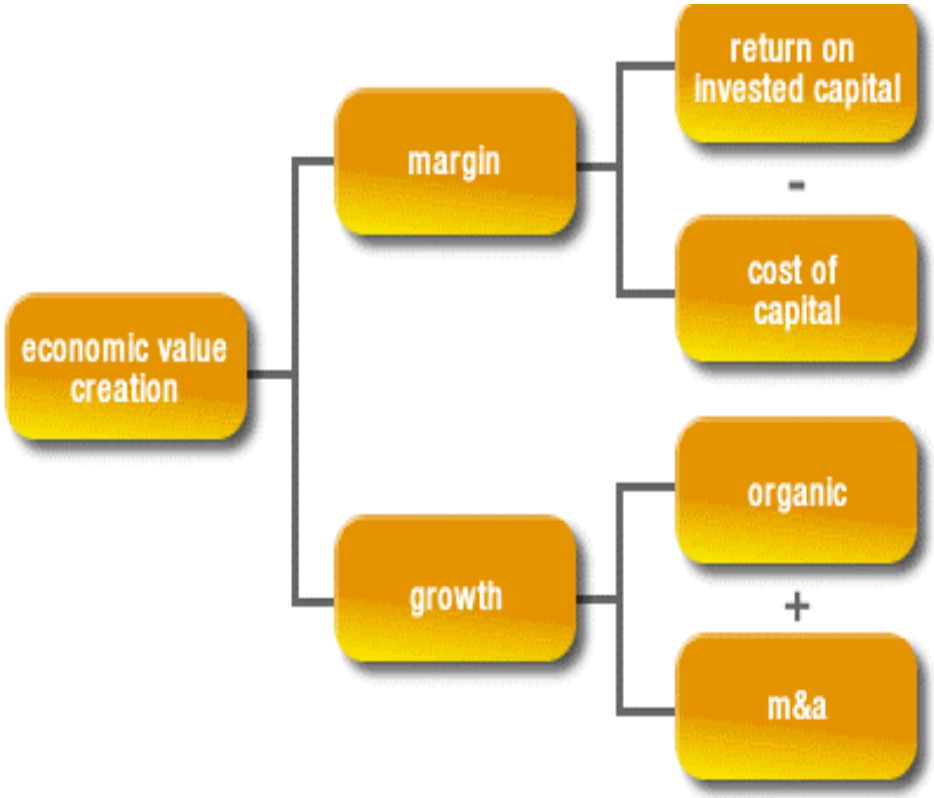
# Innovation Paradigm Shift

**PROOF OF CONCEPT**
**(Technological Feasibility)**
**"It Works!"**


**PROOF OF RELEVANCE**
**(Market Pull)**
**"It Works To Solve A Problem"**

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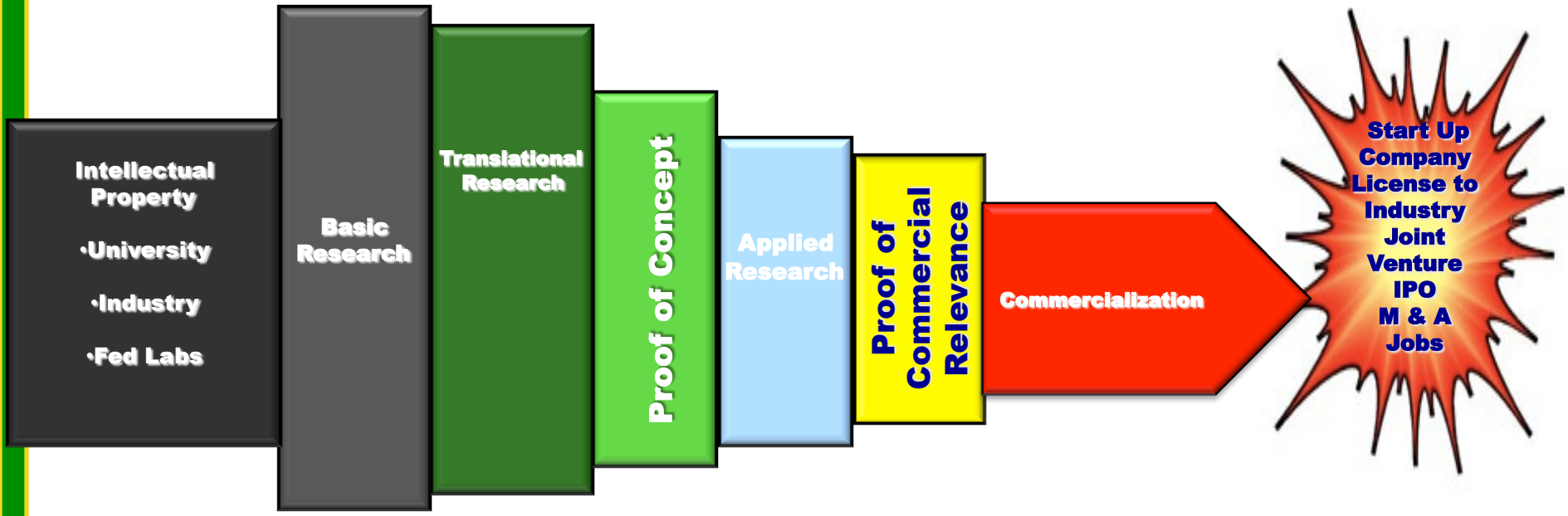
# Iowa Integrated Innovation Commercialization Network ™

**Knowledge Infrastructure:** Interns → MBA's → PhD's → Post Docs → Univ. Research → IIICN → Mentors/Advisors → Industry

Management




**State & University Funding:** POCC → Demonstration Fund → POCR → State Funds → Iowa Seed Fund

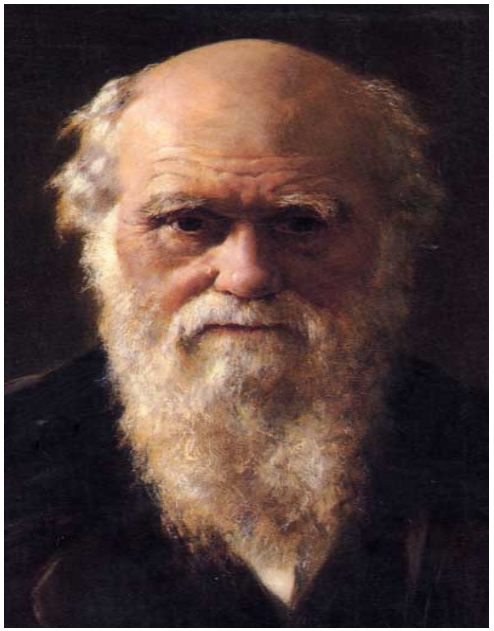
**Federal & Public Funding:** SBIR/SSTR Phase I&II → TIP → SBIR 2B → I6 Green → E-RIC → Other Public Funds

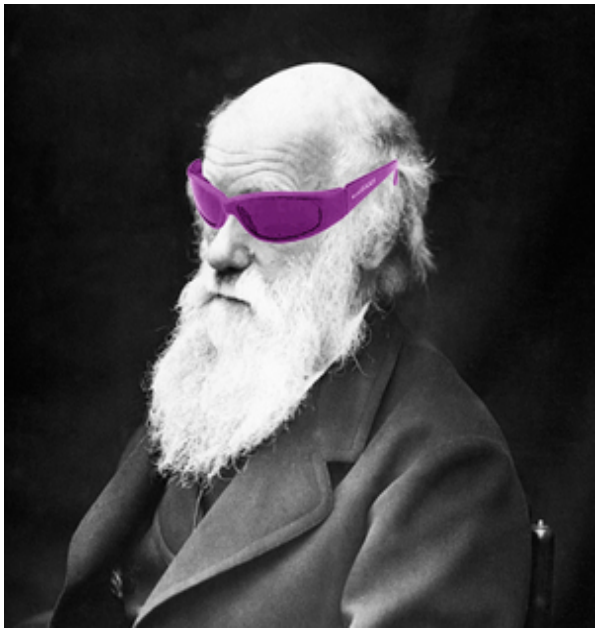
**Private Funding:** Foundation → Angel → Seed → Venture Capital → Mezzanine → Debt → Bank

# Darwin on Collaboration

“ It is the long history of humankind (and animal kind, too) those who learned to collaborate and improvise most effectively have prevailed."

–Charles Darwin





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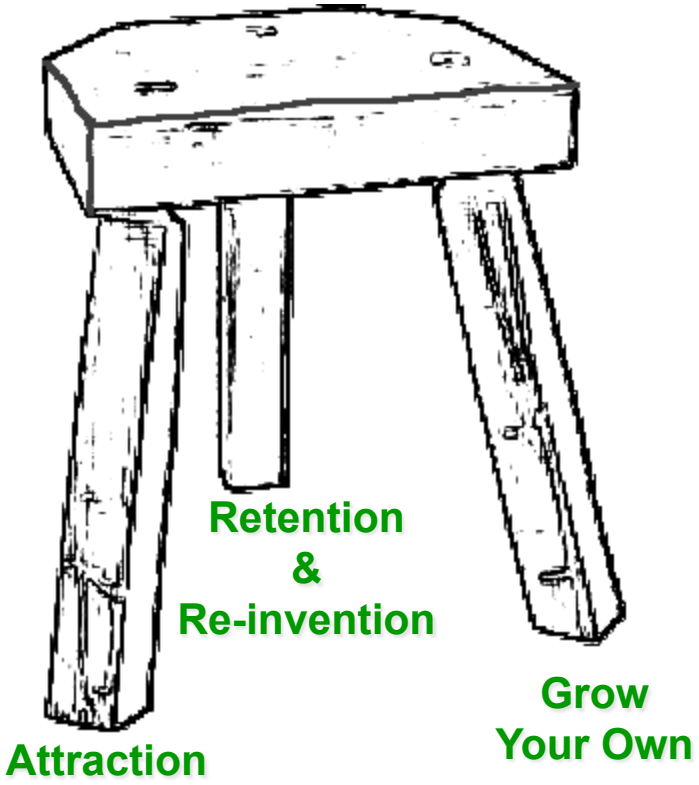
# Economic Development

- Economic Development is a three-legged stool:
  - **Attraction**
  - **Retention & Re-Invention**
  - **Grow Your Own**
- IBED requires patience and persistence, continuity and consistency.
- Working with early-stage companies takes time.
- A balanced portfolio economic development strategy is best!



# Traditional & Innovation-Based Development

| | Traditional | Innovation (Clusters) |
|---|---|---|
| • Competitive Basis | Natural resources<br>Highways / Rail<br>Proximity<br>Costs | Specialized talent<br>Networks, information<br>University research / professors<br>Market understanding<br>Global Reach |
| | i.e. PHYSICAL | i.e. KNOWLEDGE |
| • Key values / offerings | Business parks<br>Incentives | Access to research<br>Workforce competencies<br>Lifestyle |
| • Lead Organization | Chambers / EDCs | Economic developers<br>**Innovation Intermediaries** |

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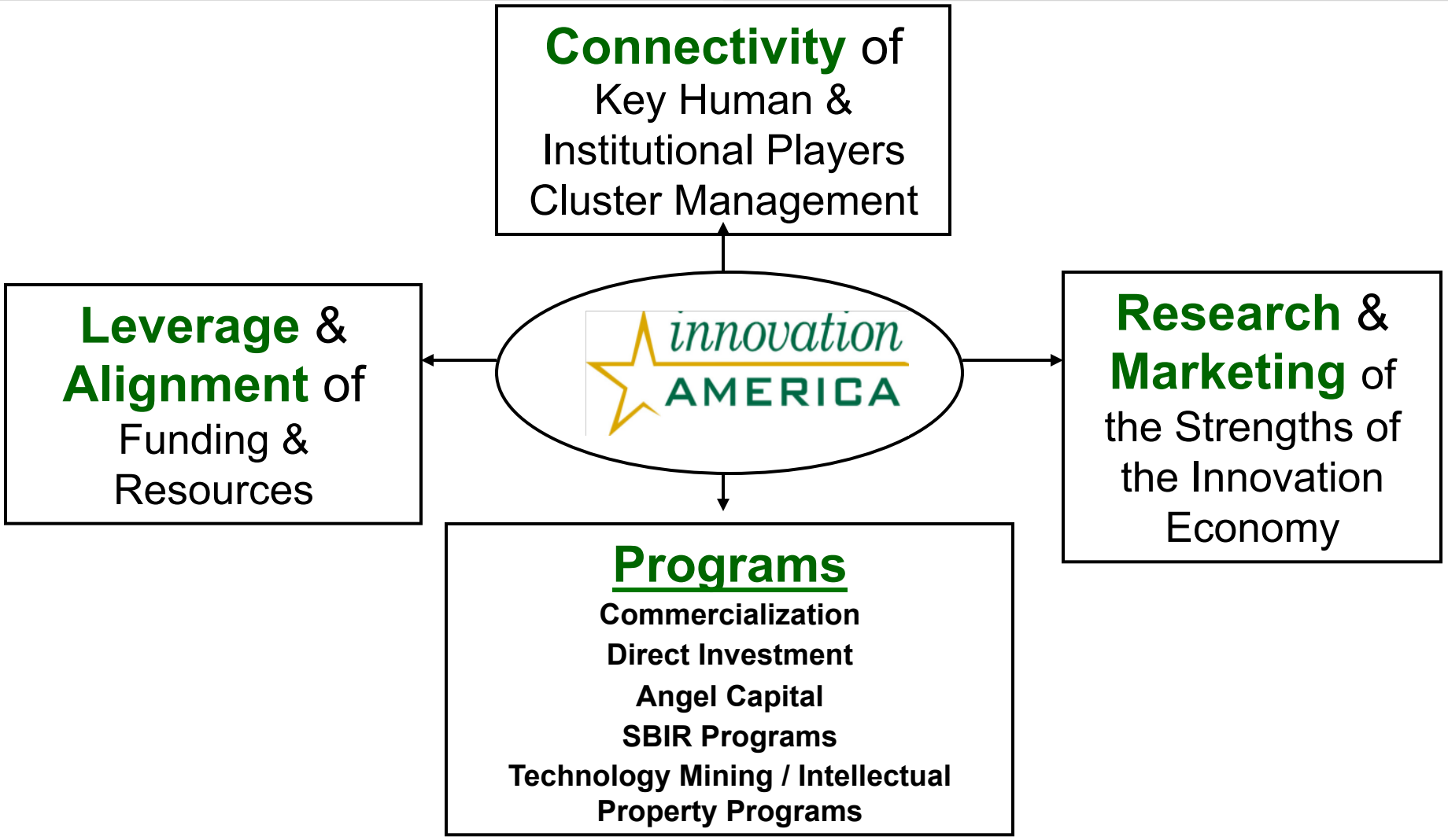
# What is a Innovation Intermediary?

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 |
| | | | |

# Intermediary Best Practices

- Longevity
- Bipartisan Support & Champions
- Independent Organizations
- Continuous Reinvention
- PRIVATE SECTOR LEADERSHIP
- Understand Return On Investment
- Sustainability In Funding
- Accountable
- Innovative
- Effective Leadership

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# U.S. State Innovation Programs















# Successful Funding Models

Ohio Third Frontier
Innovation Creating Opportunity

**$700M 5-yearBond Issue**
**62% Taxpayer vote approving**

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**$581M 15 year Wage-tax TIF**

TNInvestco

TTDC
TENNESSEE TECHNOLOGY DEVELOPMENT CORPORATION

**$160M VC Premium insurance**
**Tax Incentives**

POSITIVELY MINNESOTA
Department of Employment and Economic Development

**$60 Million**
**Angel Tax Credits**

GPIC Greater Philadelphia Innovation Cluster for Energy Efficient Buildings
*A U.S. DOE Energy Innovation HUB*

**$129M E-RIC Grant**

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# Utah Science Technology and Research initiative (USTAR)

•Established to generate more technology-based start-up firms, higher paying jobs, and additional business activity leading to a state-wide expansion of the Utah's tax base.

•USTAR is comprised of three program areas:
  - •Research Teams, Research Building Projects, and regional Technology Outreach

•Research Teams: World-class research teams have been recruited to Utah and developed internally within six strategic innovation focus areas:
  - •Energy
  - •Biomedical Technology
  - •Brain Medicine
  - •Nanotechnology
  - •Imaging Technology
  - •Digital Media

# Innovation 2 Enterprise - Oklahoma

- Private not-for-profit focused on wealth creation by growing OK technology-based entrepreneurial economy
- Works directly with universities, entrepreneurs, researchers and companies to help commercialize technologies, launch and grow new businesses and access capital
- Funding
  - Proof of Concept Fund
  - Seed Capital Fund
  - Angel Network
- Entrepreneurial Development

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INNOVATION TO ENTERPRISE


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# Kansas Bioscience Authority – Economic Impact

***Through June 2010, KBA investments have helped generate:***

- **1,195** new **jobs**
- **$212.6 million in capital expenditures**
- **$86.6 million in new research funding**
- **$48.3 million in equity investments**
- ***Including estimated wages of jobs, that represents a $9.41 return to the state's economy for each $1 invested by the KBA***


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# Regional IBED Intermediaries

















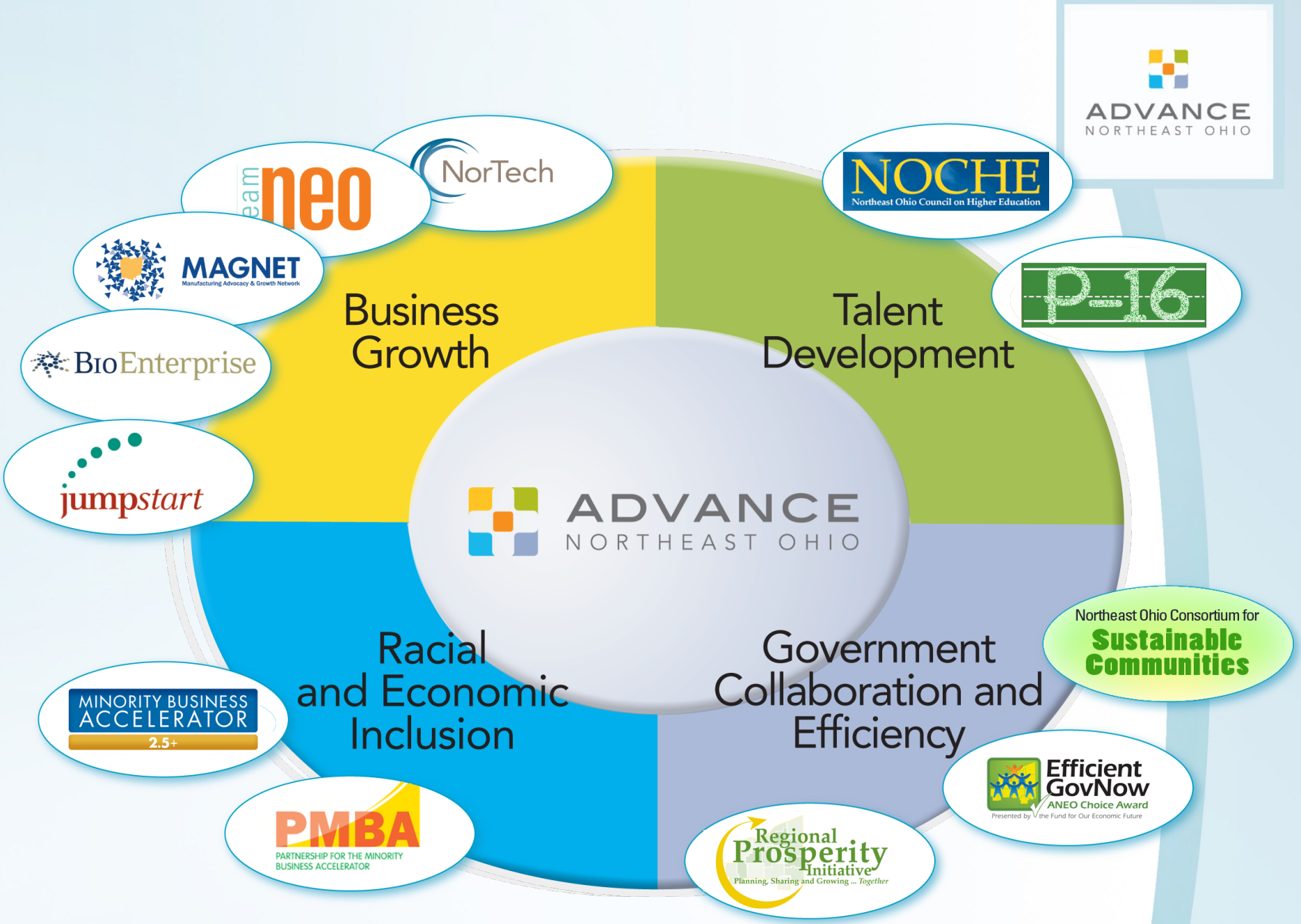
# Northeast Ohio IBED Intermediaries

NorTech, (the Northeast Ohio Technology Coalition) is a nonprofit Technology-Based Economic Development (TBED) organization that champions growth in Northeast Ohio's 21 county region. Foundation funded.

JumpStart is creating economic transformation in Northeast Ohio by providing resources to entrepreneurs to grow their high potential, early stage companies.

BioEnterprise is a business formation, recruitment, and acceleration initiative designed to grow health care companies and commercialize bioscience technologies

Team NEO advances Northeast Ohio’s economy by attracting businesses worldwide to the 16-county Cleveland Plus region.


ADVANCE
NORTHEAST OHIO
team neo
NorTech
NOCHE
Northeast Ohio Council on Higher Education
MAGNET
Manufacturing Advocacy & Growth Network
P-16
BioEnterprise
jumpstart
Business Growth
Talent Development
ADVANCE
NORTHEAST OHIO
Racial and Economic Inclusion
Government Collaboration and Efficiency
Northeast Ohio Consortium for
Sustainable Communities
MINORITY BUSINESS ACCELERATOR
2.5+
PMBA
PARTNERSHIP FOR THE MINORITY BUSINESS ACCELERATOR
Efficient GovNow
ANEO Choice Award
Presented by the Fund for Our Economic Future
Regional Prosperity Initiative
Planning, Sharing and Growing ... Together

# The New Economy Initiative for Southeast Michigan (NEI)

**Founded:**2008

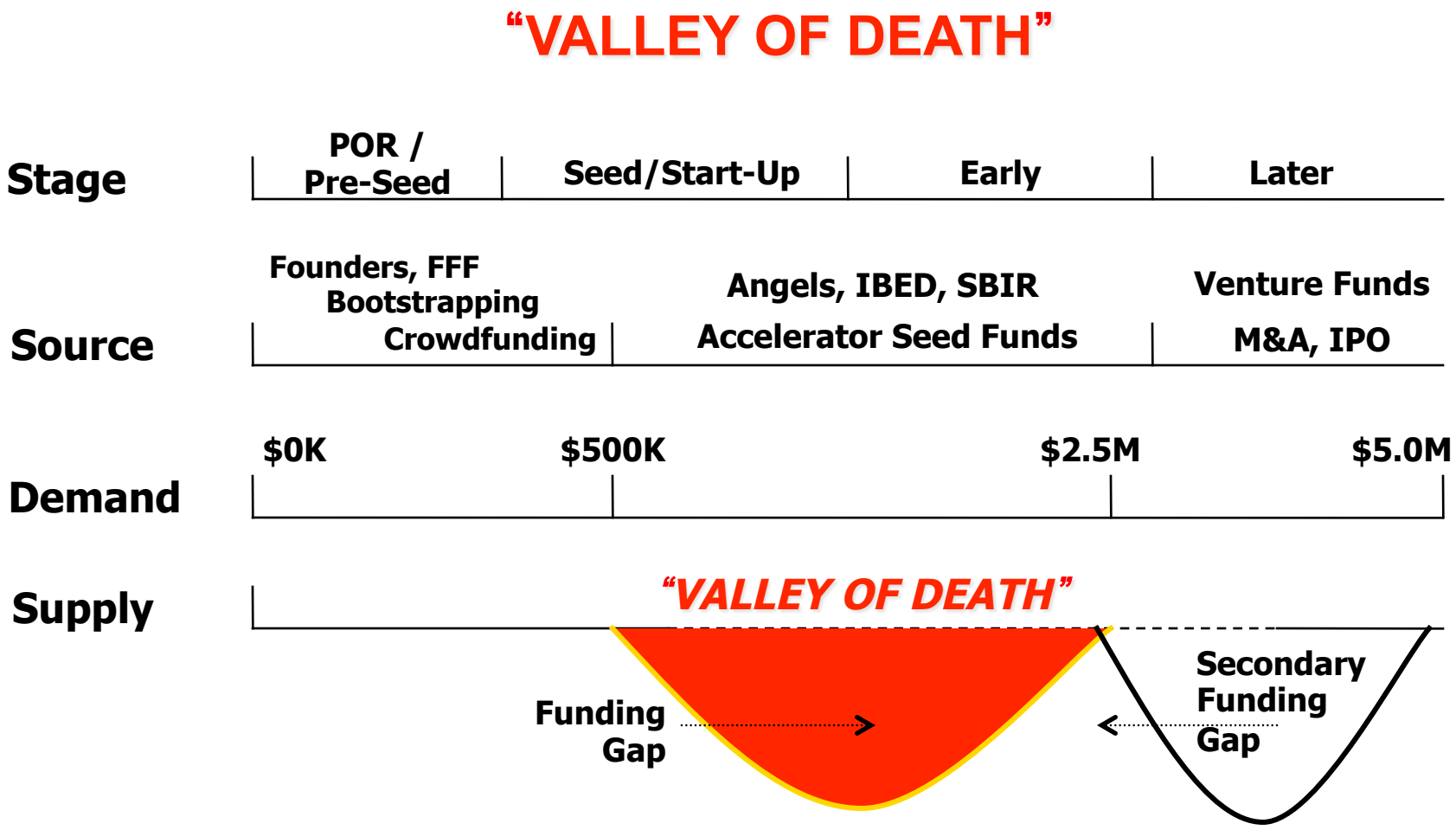
**Organizational Mission:** Unique philanthropic initiative aimed at helping to restore southeast Michigan to a position of leadership in the new global economy.

**Original Funding:** $100M – 8 year initiative - 10 national and local foundations

**Goal:** Accelerate the transition of metro Detroit to an innovation-based economy. Entrepreneurial Eco-System

- Capitalizing on Existing Assets and Resources
- Build and employ a more skilled and educated workforce
- Urban Entrepreneurial Partnership provides assistance to 150 minority automotive suppliers to diversify their customer bases to aerospace, alternative energy, medical devices, military and homeland security.

# Innovation Capital Valley of Death

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# Funding & Resources for Innovation Capital

## Seed

jumpstart

BioEnterprise
A Leader in Growing BioScience Companies

500 STARTUPS

First Round CAPITAL

Delaware Innovation Fund

NYSTAR

## IBED

NorTech
Shaping Northeast Ohio's Technology Future

Ohio Third Frontier
Innovation Creating Opportunity

Ben Franklin Technology PArtners

i2E
INNOVATION TO ENTERPRISE

MICHIGAN
ECONOMIC DEVELOPMENT CORPORATION

Maryland TEDCO
Technology Development Corporation

KANSAS BIOSCIENCE AUTHORITY

edc
NEW JERSEY ECONOMIC DEVELOPMENT AUTHORITY

## Federal

SBIR & STTR

TIP
Technology Innovation Program

SBA
U.S. Small Business Administration

SBIC Program

CRADA

PCP

NRC·CNRC Canada
NRC Industrial Research Assistance Program

## Angel

ohio TechAngels

MAG
MID-ATLANTIC ANGEL GROUP

TECH COAST ANGELS

JumpStart NEW JERSEY ANGEL NETWORK

LORE ASSOCIATES

RobinHood VENTURES

SouthCoastAngels
"A Member Managed Angel Fund"

New York ANGELS

## Entrepreneur

AUSTEN BioInnovation
INSTITUTE IN AKRON

techstars

Y Combinator

seedcamp

PIPELINE
KTEC'S ENTREPRENEURIAL FELLOWSHIP

DREAMIT VENTURES

NASVF
Advancing Innovation Capital

SSTI

Federal Laboratory Consortium
FLC
For Technology Transfer

ACA
ANGEL CAPITAL ASSOCIATION

nbia

# Key Difference Between Incubators and Accelerators

***Incubators*** - incubators allow for slower growth, although they typically have some requirements as to how long companies can remain in the incubators before they graduate.

***Accelerators*** - as their name implies, focus on an intense, boot-camp-like experience to get new businesses up and running in a matter of months.

# 2011 Accelerator Rankings

## 2011 Rankings USA Startup Accelerators

| Rank | Program | Location | Website |
|---|---|---|---|
| 1 | TechStars Boulder | Boulder, CO | techstars.org/boulder |
| 2 | Y Combinator | Mountain View, CA | ycombinator.com |
| 3 | Excelerate Labs | Chicago, IL | exceleratelabs.com |
| 4 | LaunchBox Digital | Durham, NC | launchboxdigitalcom |
| 5 | TechStars Boston | Boston, MA | techstars.org/boston |
| 6 | Kicklabs | San Francisco, CA | kicklabs.com |
| 7 | TechStars Seattle | Seattle, WA | techstars.org/seattle |
| 8 | Tech Wildcatter | Dallas, TX | techwildcatters.com |
| 9 | DreamIt Ventures | Philadelphia, PA | dreamitventures.com |
| 10 | The Brandery | Cincinnati, OH | brandery.org |
| 11 | Capital Factory | Austin, TX | capitalfactory.com |
| 12 | NYC SeedStart | New York, NY | nycseed.com |
| 13 | Betaspring | Providence, RI | betaspring.com |
| 14 | BoomStartup | Salt Lake City, UT | boomstartup.com |
| 15 | AlphaLab | Pittsburgh, PA | alphalab.org |

TechCocktail.com

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Betaspring

BoomStartup Mentorship-Driven Investment

alphalab

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# Best Practices in Innovation Entrepreneurial Support

PIPELINE
KTEC'S ENTREPRENEURIAL FELLOWSHIP

pipeline 2
pipeline
A KTEC INNOVATION INITIATIVE

Ewing Marion
KAUFFMAN
Foundation

**The PIPELINE is the nation's premier state-sponsored technology entrepreneur fellowship program. PIPELINE is designed to systematically identify high potential technology entrepreneurs and match them with best-in-class training, resources and mentors to facilitate their dynamic growth in Kansas.**


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# What Is A Road Map…..Why Is It Needed?

- A roadmap answers the ***question "Where do we want to be and how to we get there?"***
- A cluster roadmap ***provides strategies and action*** plans to best ***achieve a vision of the future shared by a critical mass*** of industry-related organizations.
- The strategies and action plans are developed according to the unique strengths of the cluster and region as compared to a global market opportunity.

# Innovation America: Innovation Road Map Process

1. Literature Review of Comparables
2. Key Stakeholder Interviews/Recommendations
3. Asset Mapping/Cluster Analysis
4. GIS Innovation Mapping
5. Innovation Benchmarking/Index (Peer 2 Peer)
6. Innovation and Entrepreneurship Resource Identification (Entrepreneur Resource Guide and Database)
7. Innovation Economic Development Organizational Analysis and Matrix
8. Innovation & Commercialization Gap Analysis (programs & services)
9. Innovation Ecosystem Public Policy Recommendations
10. Develop Strategic Plan
11. Organizational Leadership and Staffing
12. Operations/Implementation Plan and Program Portfolio
13. Branding/Marketing Strategy and Market Research
14. Economic Impact Analysis
15. Celebrate Success


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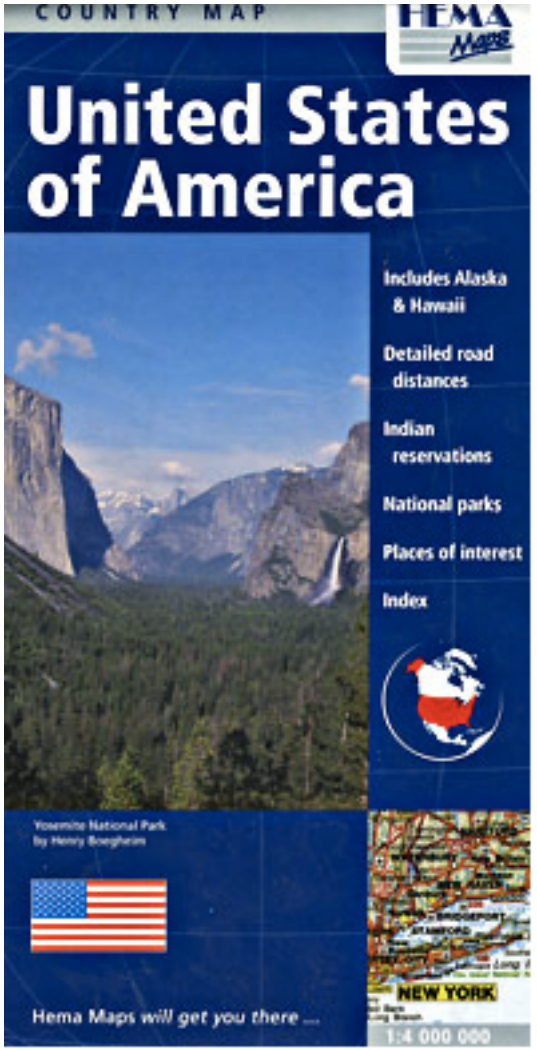
# America's Innovation Road Map

- Develop an American Innovation Road Map & implementation strategy
- Create an Early-stage innovative job Fund of Funds (FOF)
- Reauthorization of the SBIR & STTR
- Increase Funding Technology Innovation Program (TIP)
- Create a Federal Angel Capital Investment Tax incentive
- Make permanent the R&D Tax Credit & add transferability provision
- Create the 1st electronic Innovation & Entrepreneurship Clearinghouse

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# Bill Gates - Microsoft

*"Never before in history has innovation offered promise of so much to so many in so short a time."*

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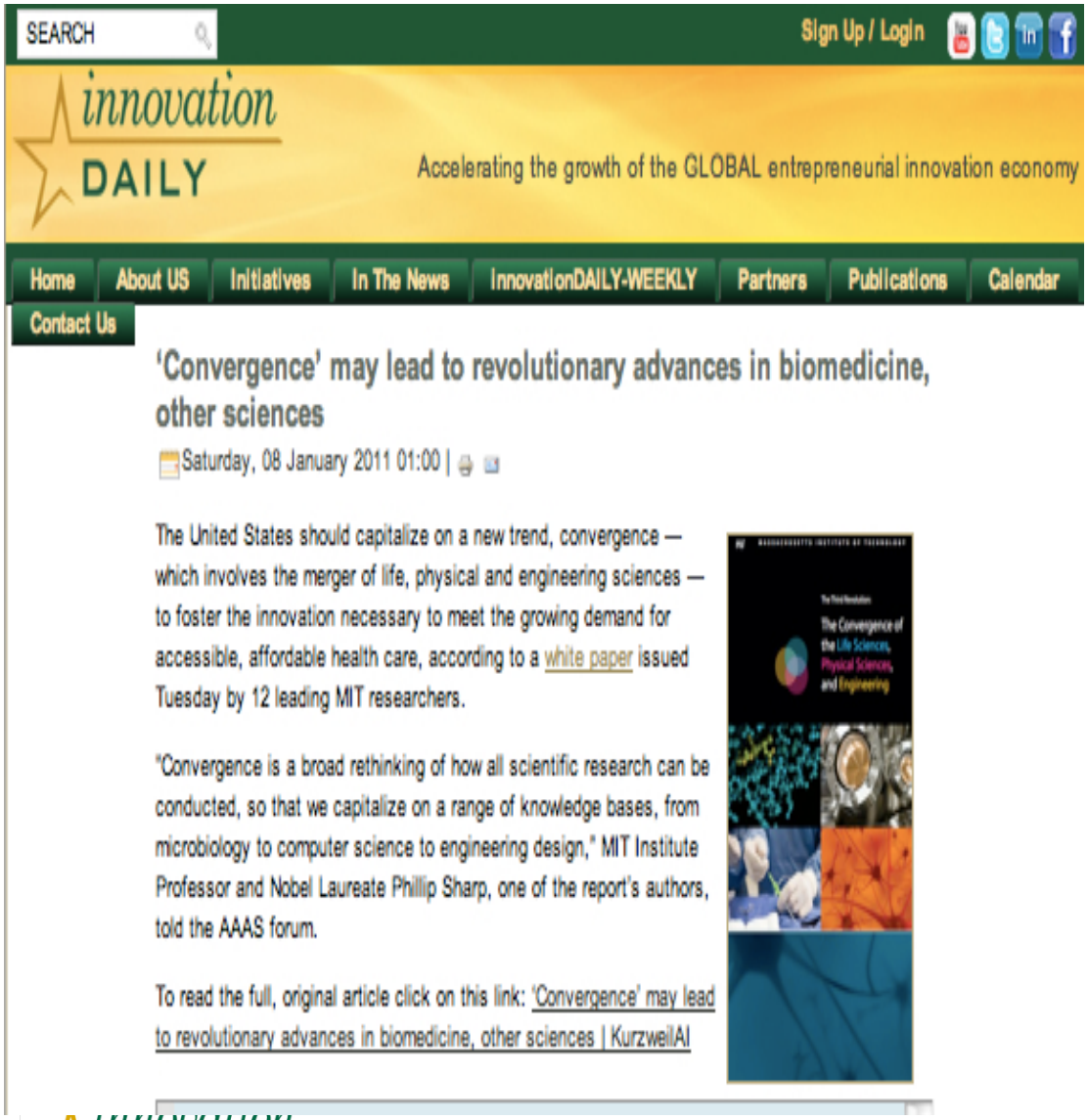


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