

## Pulling Together For Success

Presented by:
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### Rich Bendis BIO

- **♦Founder & CEO Innovation America**
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- **♦** Active Venture Capitalist & Angel Investor
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- ♦ Founder & President of Kansas Technology Enterprise Corp
- ♦Int'l Speaker & Consultant to over 20 countries & 25 states/regions
- **♦**Board member TechnoPolicy Network, The Hauge
- **♦ Consultant to the United Nations & NATO on IBED**
- **♦ Founding Board Member of SSTI and NASVF**
- **♦ Former member of the U.S. Innovation Partnership Advisory Board**
- **♦U.S. member National Academy of Sciences (SBIR Review Committee)**
- ♦ Member Eisenhower Fellowship Selection Committee
- **♦ Board Member of University City Science Center Philadelphia**
- ♦ Chairman & CEO of Continental Healthcare Systems (NASDAQ IPO)
- ♦ Former Executive with Quaker Oaks, Texas Instruments, Polaroid & Marion Laboratories





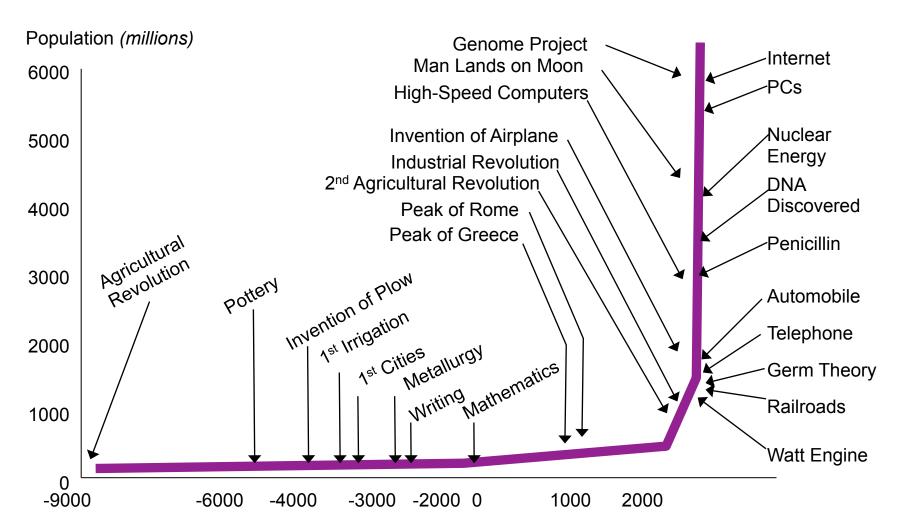
### **A Growing Population**

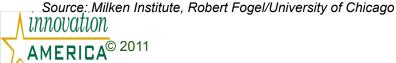
World population will grow from 6,892,669,975 to 9,149,984,000 2010 32.4% Increase 2050





# Growth of World Population and the History of Technology







## 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



OPEN INNOVATION MATTERS





### How Leading Regions Respond 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







### Why Is Innovation Essential?

"INNOVATION DISTINGUISHES BETWEEN A LEADER AND A FOLLOWER."

-STEVE JOBS







### **Defining Innovation**

**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



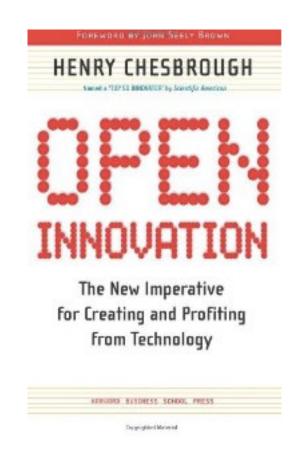




### **Open Innovation Defined**

"Open innovation is a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology."

Henry Chesbrough



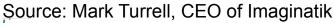




## **Trends & Predictions in Open Innovation**

- Innovation involves more than just R&D (seriously!)
- Not enough invented here so look outside
- Ideas are precious so manage them
- •Experiment with Collective Intelligence and crowdsourcing
- •Innovate the Innovation Process (and do it properly for a change)
- Innovators learn to love measurement and ROI
- •The future is cheap ... and coming from the bottom of the Economic Pyramid
- Don't be surprised that your CEO gets very interested in innovation
- •Innovation with full-time staff & a full-time trained staff are best.







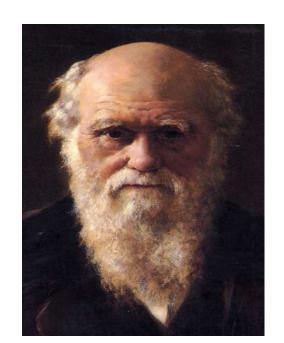


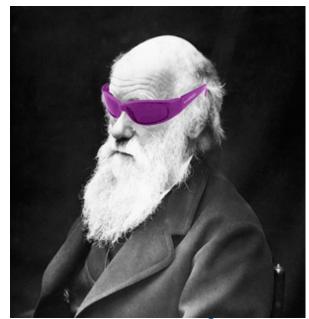
## Change Is Inevitable

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

-Charles Darwin









## The Six Driving Forces of Change

- Commoditization
- The Digital Revolution
- Social Mediaization throughout society
- Global Open Innovation
- The Turbulent World
- Acceleration (or running faster to stay in the same place)







## 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 Tech-Based Economic Development (TBED) to....

Innovation-Based Economic Development (IBED)





### **Goals of Innovation-Based Economic Development**

## Intervene at the margins of private sector investment flows of capital (financial and intellectual) to:

- Address economic transition
- Capture the benefit of investments in research and development, higher education
- Build entrepreneurial cultures
- Help existing industries modernize
- Diversify both rural and urban economies
- Develop global innovation network







### **Innovation Paradigm Shift**

PROOF OF CONCEPT
(Technological Feasibility)

"It Works!"

PROOF OF COMMERCIAL RELEVANCE
(Market Pull)

"I'll Buy It!"



The Historic



Garage



**CASH IS KING!** 

### **University Commercialization Centers**

### THE GAP



## Academic Research

- Federal Grants
- Corporate
   Sponsored
   Research

- » Technology risk
- » Market risk



### Commercial Enterprise

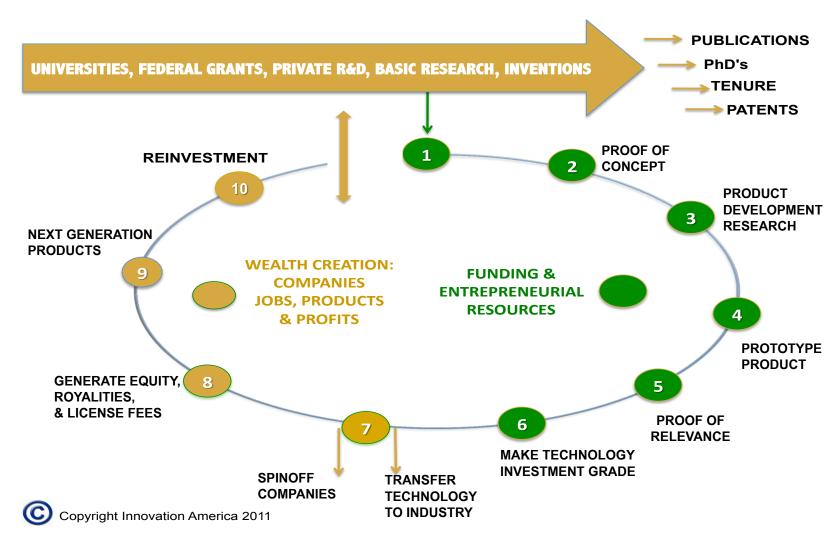
Investors Commercialize

- Angels
- VC's
- Corporations





### **Innovation America Commercialization Model**

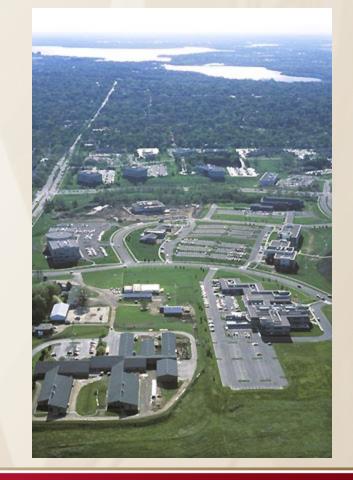






## University Research Park

- 255 Acres developed
- 36 Buildings; 1.5M sq. ft under roof
- \$160+ Million value
- \$3 Million per year in property taxes
- 114 Tenants with over 3,500 employees; average salary \$60K
- \$210 Million in annual payroll
- Metro Innovation Center just opened
- URP<sup>2</sup> being planned



# Wisconsin Alumni Research Foundation "WARF"

- Receives ≈ 400 disclosures annually; Accepts ≈ 65%
- Licenses ≈ 70 technologies annually (30% to WI companies)
- Provides ≈ \$80 million to University annually
- Pays Royalties to 300+ UW-Madison researchers
- Holds equity in 40 UW Spin-offs



### Kansas ICC's

### Investment Grade Technologies

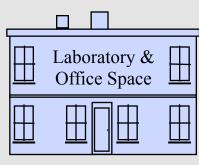
Development Risk

- Applied ResearchProject
- Innovation
- •Development Risk
- Market Risk
- •Management Risk
- •Growth Risk

# Innovation and Commercialization Corporations

Independent 501(c)(3) not-for-profit
Independent Board of Directors
President with commercialization experience
For Profit Seed Capital Funds

- •Business Plan Consulting
- •Financial Expertise
- •Management & Operations Consulting
- •Marketing & Sales Strategies
- •Guidance in Accessing Financing
- Training
- Market Research
- •Due Diligence
- •Technical Review



General Incubator Services

**Quality Investments** 

Start-up Company

•Market Risk

Seed Capital

- Market Risk
- Management Risk
- Growth Risk





## **Innovation Ecosystem**

# INPUT Knowledge Creation Basic

Proof of

Concept

&
Translational
Research

"INTERACTION FIELDS"

Education/ Human Resources

**Human Networks** 

**Networks of Funds** 

**Regional Clusters** 

University-Industry Collaborations

**IP Strategies** 

**OUTPUT** 

**Jobs** 

Relevance

Wealth Creation

Commercialization

New Products & Services

**New Markets** 

**Companies** 

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.





## Wisconsin Innovation Eco-System Participants

## Wisconsin Economic Development Corporation











Wisconsin Innovation Network











M7 Fox Valley















### **Model Ecosystem**

#### **ACADEMIA**

- RESEARCH/T2
- LifeLong Learning
- ECONOMIC DEVELOPMENT

### **INDUSTRY**

- PROFIT
- PROCESS
- PRODUCT

INSEPARABLE MISSIONS

#### **GOVERNMENT**

- Sustainability
- QUALITY OF LIFE
- ECONOMIC POLICY

### **FOUNDATIONS**

- ECONOMIC GROWTH
- COMMUNITY INVESTMENT
- REGIONAL COLLABORATION





### **IBED Foundation Funding**



Cleveland



St. Louis





**Detroit** 





WISCONSIN

COUNCIL





## 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

ECONOMIC BASE

ENTRE-PRENEURSHIP

**TALENT** 

INNOVATION & IDEAS

Location, Infrastructure, Amenities, Factor Costs, Natural Resources

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





## **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





### 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







## **Government Innovation Programs**















STANDARDS AND TECHNOLOGY U.S. DEPARTMENT OF COMMERCE













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



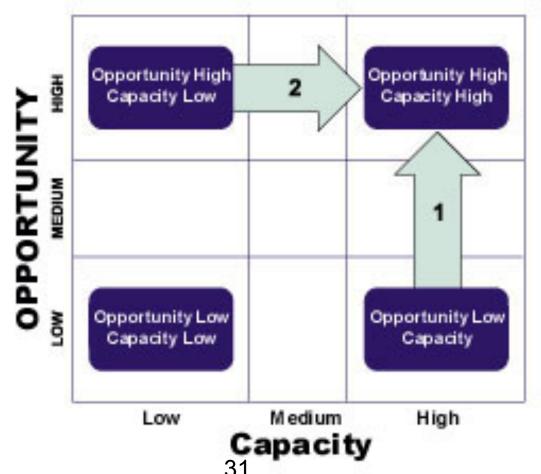
Published by The Kansas Technology Enterprise Corporation





## **Linking Opportunity With Capacity**

Figure 1-2 Linking Opportunity & Capacity: An Assessment Model







### **The Kansas Cluster Experience - 2010**

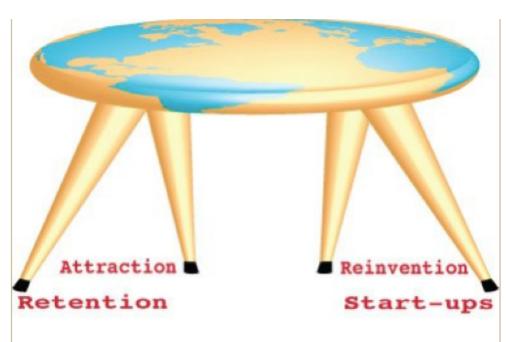
CLUSTER	ORGANIZATION	OUTCOMES
Human BioSciences	Kansas BioScience Authority (KBA) www.kansasbioauthority.org	•\$581m Fund •Build world-class research capacity, growth of bioscience startups, expansion of the state's bioscience clusters and facilitate industrial expansion and attraction.
Value-added Agriculture and Ag Bio	National Agricultural Biosecurity Center (NABC) http://nabc.ksu.edu/content	•\$500m Research Center •Focused on protecting America's agricultural infrastructure and economy from endemic and emerging biological threats.
Aviation	National Institute for Aviation Research (NIAR) www.niar.wichita.edu	24 year-old research and tech-transfer center established to advance the nation's aviation industries that may benefit from aviation-related technologies.
Information and Telecommunications & Computing	Software and Technology Association of Kansas (SITAKS) www.sitaks.com	Advocate for Kansas' software and information technology sector to help Kansas' software and IT companies grow and succeed.





### **Economic Development**

- Economic Development is like a
  - 4 legged stool:
    - Attraction
    - Retention
    - REINVENTION
    - 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!







### Convergence of Traditional Eco Devo & IBED

**Traditional** 

<u>Innovation</u>

Assets: PHYSICAL

KNOWLEDGE

**Competitive Basis:** Natural resources

Highways / Rail

**Proximity** 

Costs

Specialized talent

Networks, Clusters,

University research,

Commercialization, Market

Positioning Globalization

Key values/offerings: Business parks

**Incentives** 

Access to research

Workforce competencies

Lifestyle

**Lead Organization:** Chambers /

**EDCs** 

Economic developers

**INNOVATION INTERMEDIARIES** 





### 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.







## 21<sup>st</sup> Century Innovation Intermediary

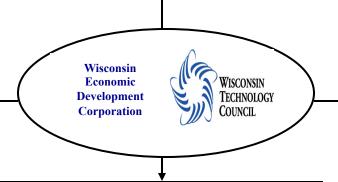
### Connectivity

Key Human & Institutional Players Cluster Management

Leverage & Alignment

**Funding** 

Resources



### **Program Management**

Proof of Commercial Relevance
Direct Investment
Angel Capital
SBIR Programs
Technology Mining / Intellectual

**Property Programs** 

Innovation
Road Map
Implementation

Research

Marketing

Positioning

of the Strengths of the Innovation Economy





## **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







# Innovation Intermediary Commercialization Services Investigation Technical Market Business

Investigation	Technical	Market	Business

**Development Phase** 

Commercial Phase – Proof of Commercial Relevance

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Technology Concept

Technology Feasibility

Engineering Prototype

Pre-Production

Prototype

**Production** 

**Production Support** 

Analysis

Proof of Concept

Feasibility

**Planning** 

Maturity

Introduction

**Full Scale Production** 

Market Needs

Assessment

Market Study

Strategic Marketing

Market Validation

Sales and Distribution

Market Diversification

**Venture Assessment** 

**Economic Feasibility** 

Strategic Business

**Business Start-Up** 

**Business Growth** 

**Business Maturity** 

Plan

# Successful Funding Models







\$581M 15 year Wage-tax TIF



\$160M VC Premium insurance
Tax Incentives



\$175M Budget



\$60M Angel Tax Credits





# "Swipe From The Best, Then Adapt."



---Tom Peters





# **U.S. State Innovation Programs**





















GEORGIA RESEARCH ALLIANCE

















### Pennsylvania's Sustainable Government Innovation

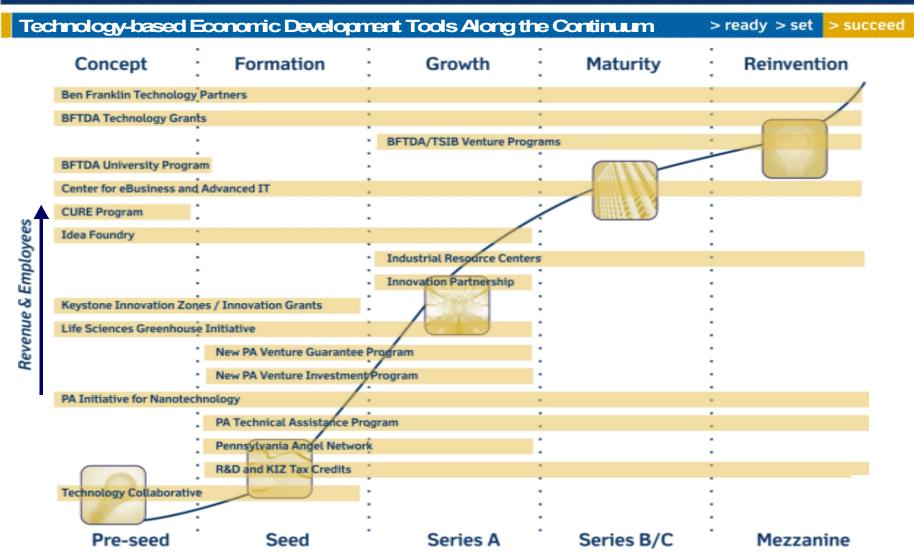
- •Pennsylvania Governors Thornburgh, Ridge, & Rendell, discuss the importance of committing to economic development through science, innovation & technology
- The governors focused on the effects that short-term decisions would have on long-term goals
- •Three important ideas:
  - •Think outside of the box
  - Measure your results and
  - •Tell your story well.







### **Technology Investment**







### **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









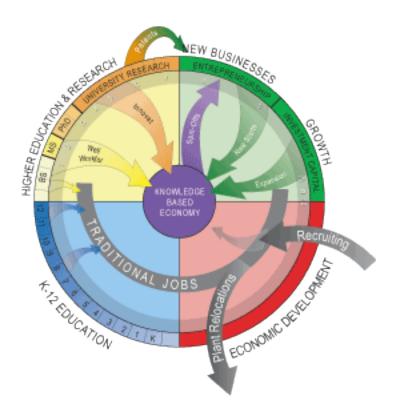






# Best Practices in Innovation-Based Economic Development

- \$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





### **How the Fund Works**

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

Measure <u>Actual</u> Incremental Growth in State Bioscience Taxes

Repeat annually for 15 years

Baseline to State General Fund Increment of Growth to
Bioscience Fund

Kansas Bioscience Authority Fund Programs & Repay Bonds

### **Tennessee TNInvestco**

- Provides no less than \$160M of financial capital to be invested in small businesses in Tennessee
- Funded by deferred insurance premium tax credits
- Focused on early stage, equity investments
- Targeting high-growth companies for "transformational" outcomes
- Professionally managed private sector funds
- Creates the opportunity for financial return to state government
- Access to Capital
- •A New Program..... A New Approach...







# **Principles of Capital Formation Policy**

- 1. Capital must be pooled in the most efficient and costeffective manner possible.
- State must not subsidize private sector competition in markets that are well-served by existing Tennessee businesses or investors
- Process of choosing fund managers must be competitive and free from political influence
- 4. Policy should prioritize financial returns when VC funds serve as agents and economic development returns when state manages investments
- 5. Economic development investments must serve to facilitate private sector investment
- Areas for improvement on the economic framework based on capitalization & fund structures are needed.



## **Smart State VC Programs**

### Align with Economic Development Strategies

### **Good policy**

- Focus on seed and early stage "transformational" investments
- Invest in funds aligned with state's R&D base and priorities
- Include first-time fund managers looking to establish track record
- Require funds to lead early stage investments prove "value add" capabilities beyond money
- Prohibit related party or prior portfolio investments

### **Bad policy**

- Allow collateralized investments in later stage businesses
- Invest in technology-agnostic or industry-agnostic funds
- Invest in "last hurrah" or "Lazarus" fund managers
- Permit syndications between multiple funds in state program
- Allow funds to throw capital into good deals that would happen with or without them

# INVESTMARYLAND

# Fueling Innovation + Creating Jobs

InvestMaryland will provide funding to spur growth and innovation — it is a premium tax credit program designed to create thousands of jobs and revitalize venture capital funding in Maryland. This \$70 million fund, approved by Maryland lawmakers during the 2011 General Assembly, is the largest venture capital investment initiative in the State's history.





# **Innovation 2 Enterprise - Oklahoma**

- •Private not-for-profit Oklahoma corporation focused on wealth creation by growing the technology-based entrepreneurial economy.
- •Works directly with entrepreneurs, researchers and companies to assist in help them commercialization of technologies, launch and grow new businesses and access needed capital.
- Funding
  - Proof of Concept Fund
  - Seed Capital Fund
  - Angel Network
- Entrepreneurial Development







### **Best Practices in Innovation-Based Economic Development**





USTAR has created a number of research teams at the University of Utah and Utah State University. Spearheading these teams are world-class innovators hungry to collaborate with industry to develop and commercialize new technologies.

Research Teams engage with innovators and entrepreneurs around the state of Utah. Learn to maximize your innovative business potential by collaborating with USTAR in your region, particularly if your product or service matches a USTAR focus area.

Wisconsin



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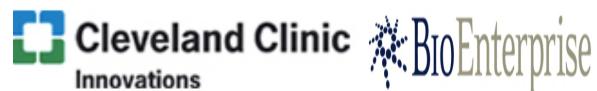
## Regional IBED Intermediaries



























### **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.

Cleveland Clinic Innovations advances commercial oriented innovation and transforms promising therapies, devices and diagnostics into products by creating spin-off companies, licensing to established companies and enabling equity partnerships.





# 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.

















- •BHI is a regionally-oriented, 501(c)(3) nonprofit private-public partnership functioning as an innovation intermediary focused on commercializing market-relevant biohealth innovations and increasing access to early-stage funding in Maryland.
- •Goal: return on investment from the world-class research assets with a cohesive strategy to move relevant, market driven ideas from labs to market.
- Market-driven, private sector- led initiative
- •BHI will increase the availability of early-stage capital by creating new early-stage funds and developing a national and global network of investors





### Alignment of National, State & Regional Policies



Obama Administration



Governor O'Malley



County Executive lke Leggett Montgomery County



Stephanie Rawlings -Blake Mayor of Baltimore

- Link Both State, County & City Strategies to Obama Administration Objectives
- •Develop an integrated Regional BioHealth Economic Development and Transit Strategy
- •Present the "Regional Job Generating BioHealth and Transit Plan" to the White House & partner with federal agencies and other stakeholder organizations as a "Showcase Model."
- •Develop structure & governance for the regional BioHealth innovation intermediary
- •Obtain Priority Federal Funding for Region's BioHealth Industry-Federal Labs-University Innovation Intermediary Pilot Plan
- •Obtain Priority Federal Funding for the region's Innovative "State of the Art" Comprehensive Rapid Transit Vehicle Plan (CCT et al)
- •Develop a pilot BioHealth-Regional Innovation Cluster (H-RIC) program





### **Founding Sponsors**







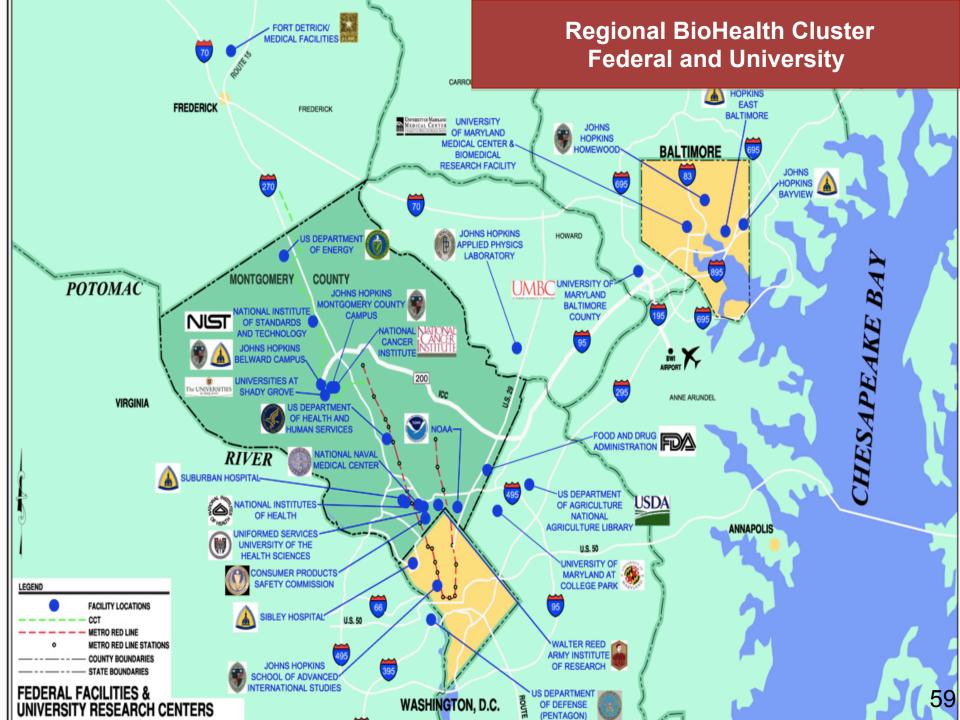






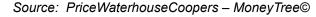






### **Innovative Small Business Facts**

- Innovative small business have generated
   64% percent of net new jobs annually over the last decade
  - Employ 30 percent of high-tech workers, such as scientists, engineers, and computer workers
- SME's produce 13 times more patents per employee than large patenting firms
- Small Companies are a key source of innovation by themselves and for Large Companies
- Proof of Concept, Start-up, and Seed stage companies lack investment support
- Most Seed stage firms need investments of \$500K - \$2M
- The average venture capital investment today is \$8.3M



Source: Small Business Administration







### **Innovative Small Business Facts**

- •Firms with fewer than **500 employees** accounted **for 64% of net new jobs from 1993 to 2008**. Source: SBA
- •SMEs employ over 50% of the country's private sector workforce, hire 40 percent of high tech workers, such as scientists, engineers and computer workers.

  Source: SBA
- The number of women-owned firms continues to grow at twice the rate of all U.S. firms (23 percent vs. 9 percent). Source: SBA
- •Small business has created about **2 of every 3 net new jobs** in the United States since at least the early 1970s
- •70% of SMEs say retaining customers cheaper than getting new customers Source: NFIB
- •7 out of 10 new employer firms last at least two years, and about half survive five years. Source: SBA







### Six Distinct Organizational Paths for Entrepreneurs

- Lifestyle business
- Small business
- Scalable startup
- Buyable startup,
- Large company,
- Social entrepreneur







## **Does Seed Investing REALLY Create Jobs?**

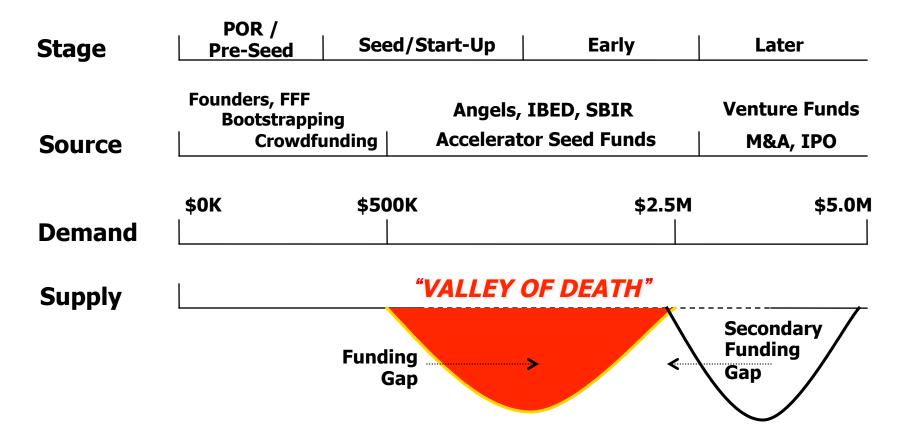






### **Innovation Capital Valley of Death**

#### "VALLEY OF DEATH"







### **Bootstrapping**

The term comes from the German legend of Baron Münchhausen pulling himself out of the sea by pulling on his own bootstraps.



Definition: "The act of starting a business with little or no external funding"





### Crowdfunding

Crowdfunding—as its name implies—aims to reach a funding goal by getting many investors to put in small amounts.







INC. Magazine: 2009

### **Incubation Nation: Where Great Ideas Are Born**

#### Seattle

Microsoft alum incubate start-ups

#### Corvallis, OR

Entrepreneurial academics inquire within

#### Boulder

Summer camp for promising start-ups

#### Salt Lake City

Subsidized lab space for techies

#### Oklahoma City

Funding at every stage of development

#### Kansas City, KS

Everybody get a mentor!

#### Austin

Ten weeks of advice from 20 mentors

#### **Phoenix**

Plans to assist 2,000 start-ups

#### San Diego

First incubator for early-stage tech firms

#### Kona, HI

Harnessing the sun and sea for profit



#### Detroit

New ventures grow in GM's shadow

#### Cleveland

Seed funding for minority CEOs

#### Madison, WI

Tech transfer in Dairyland

#### Fargo, ND

A patron funds a vaccine corridor

#### Rochester, NY

Business prodigies get their own dorm

#### Suffolk, VA

A nexus of government contractors

#### Birmingham, AL

Some 140,000 square feet of innovation

#### Ridgeland, MS

Funding for 125 startups in one year

#### **Atlanta**

Building on ideas from six universities

#### **New Orleans**

How about your own MBA team?

### **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, bootcamp-like experience to get new businesses up and running in a matter of months.









## Seed Accelerator Model May Be Relevant











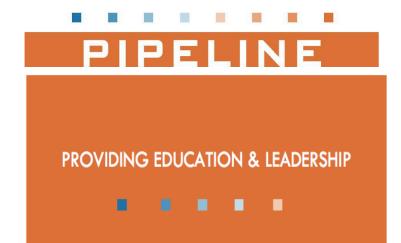
- > 130 accelerators exist & spreading rapidly
- Could grow > 400 to 500 in 5 years
- Focus on fast-test sectors





### **Kansas PIPELINE**

- •To identify talented and entrepreneurial Kansans, match them with best-in-class:
- Training
- Resources
- Mentors
- Facilitate their dynamic growth in KS
- •To utilize the momentum and substance of the program to aggressively develop the entrepreneurial ecosystem in Kansas that is essential to sustained entrepreneurial activity and expansion.



- Highly Selective.
- 10 innovators in the inaugural year.
- One-year comprehensive program.
- Participate while creating company or creating product and/or concept.
- \$36,000 stipend for discretionary use while exploring opportunities for a startup technology venture.







### **VC Trends**



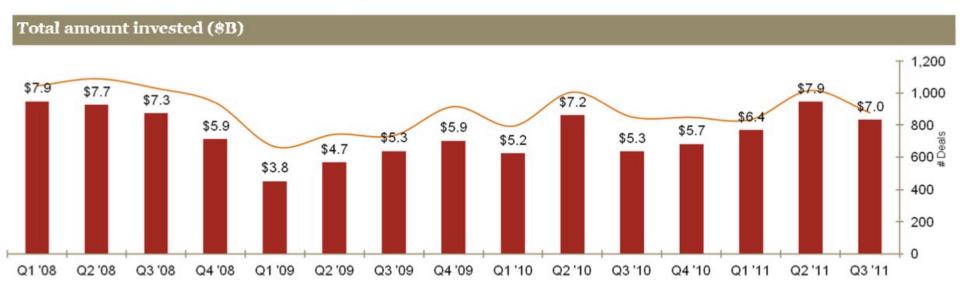




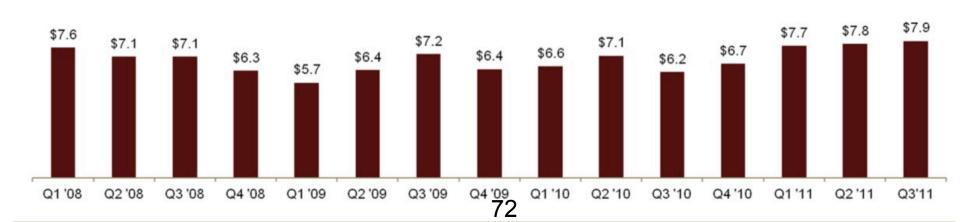
### VC Investments Q1 2008 - Q3 2011

#### Venture Capital Investments

PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report based on data from Thomson Reuters

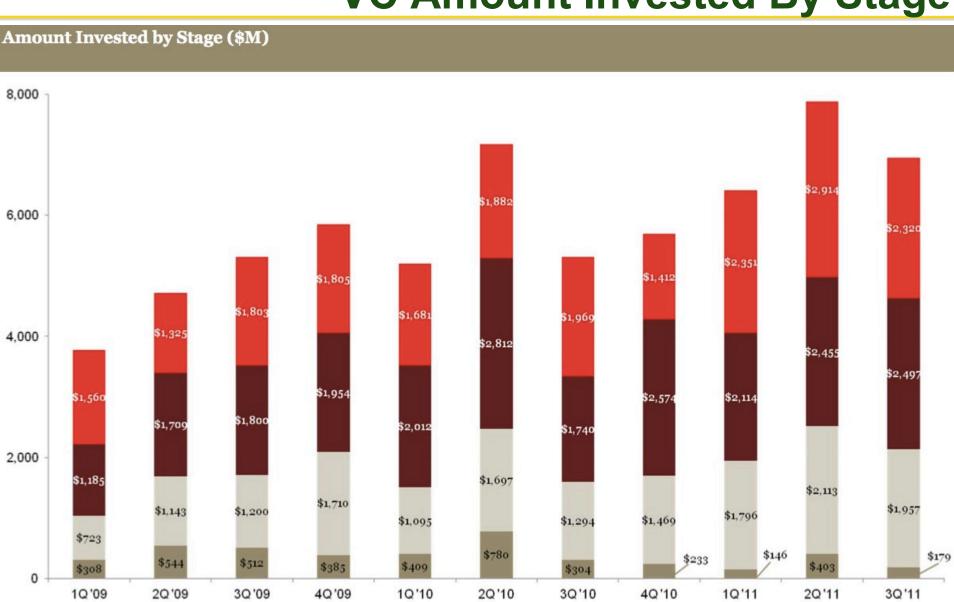


#### Average deal size (\$M)



Early Stage ■Expansion ■Later Stage

#### **VC Amount Invested By Stage**



73

## **Top 10 States for Venture Capital**

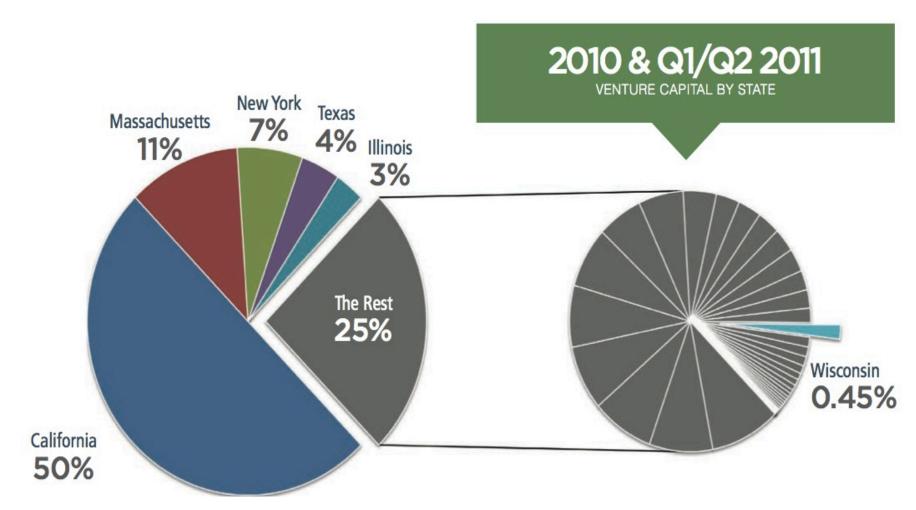
State	2010 VC Raised	1970-2010 VC Invested/Companies	Public Co's VC Backed # of Jobs/ U.S. Revenues	Cost of 1 Job Created per VC \$ invested	
CA	\$11.6B	\$215.7B / 9,827	2,822,345/\$846B	\$74,846	
MA	\$2.5B	\$53.6B / 2,860	775,151/\$190B	\$69,324	
TX	\$981M	\$27.7B / 1,743	1,129,551/\$243B	\$24,525	
NY	\$1.4B	\$25.2B / 1,799	656,632/\$188B	\$38,384	
WA	\$634M	\$15.B / 837	778,579/\$256B	\$20,293	
СО	\$483M	\$15.1B / 793	162,720/\$45B	\$92,812	
NJ	\$469M <sup>74</sup>	\$14.6B / 788	328,429/\$66B	\$44,464	
PA	\$559M	\$13.3B / 1,130	783,527/\$238B	\$16,930	
IL	\$732M	\$9.8B / 726	256,750/\$63B	\$38,693	
NC	\$529M	\$8B / 475	195,973/\$42B	\$40,835	

Source: PWC/NVCA 2011

<u>innovation</u>



#### Wisconsin Represents 1.84% of the U.S. Population







#### PEER STATES WITH WISCONSIN WORKFORCE SIZE

HOW WISCONSIN STACKS UP

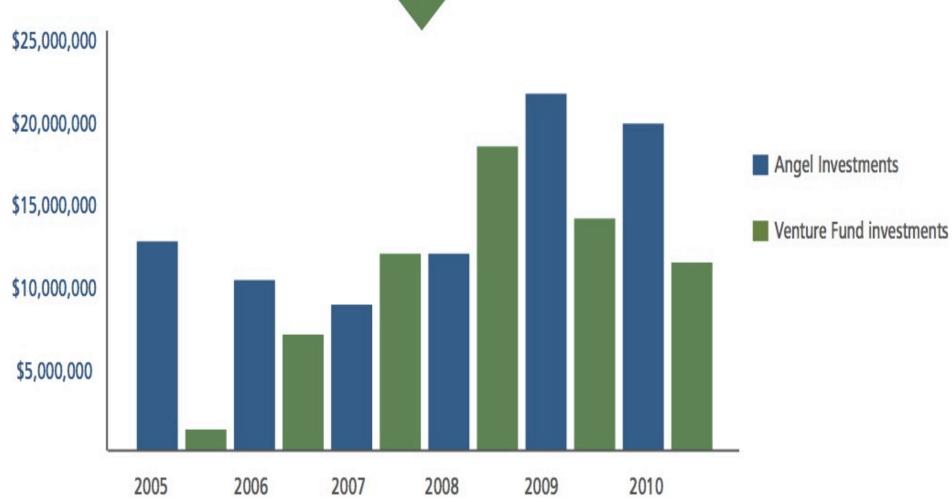




5 YEAR AVERAGE OF VENTURE CAPITAL INVESTMENTS IN PEER STATES

# **ACT 255 UPDATE**

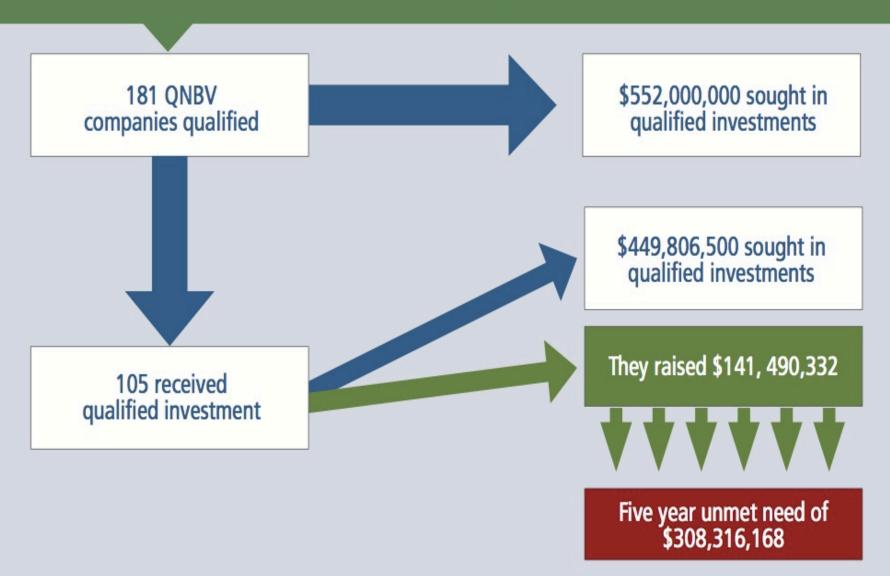
INVESTMENTS IN QNBV COMPANIES







# FUNDRAISING FOR QNBV COMPANIES 2005 TO 2011



#### **Public Investment In Job Creation**

Category	CDVCA*	State of PA	State of MI	State of UTAH	Stimulus Bill
Funds Invested	\$26M	\$90M	\$291M	\$60M	\$800B
Jobs Created	3.700	8,150	28,854	2,047	1,000,000 To 4,000,000
\$ Per Job Invested	\$7,100	\$11,000	\$11,728	\$29,300	\$800,000 To \$200,000

<sup>\*</sup>Community Development Venture Capital Association

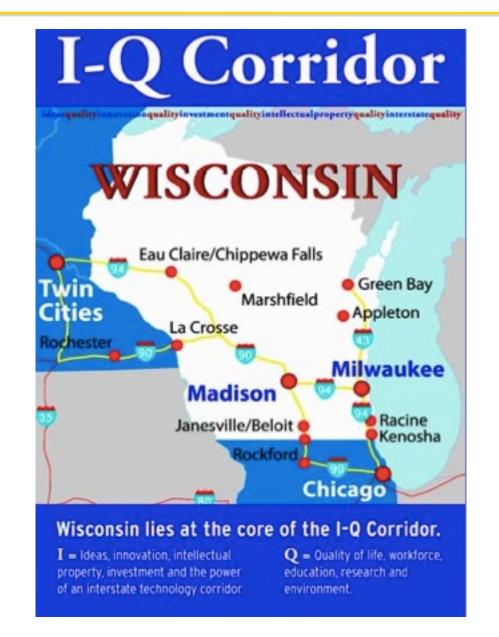




## Wisconsin Innovation Funding Continuum

**COMMERCIAL DREAM CONCEPT APPLIED STARTUP ROLL GROWTH RELEVANCE OUT FoundersFFF Federal** Incubators/ **Bootstrapping** State Seed **Accelerators IBED ANGEL** VC Crowdfundina Regional WISCONSIN Wisconsin Economic **ANGEL** 94 labs **NETWORK** VISA BAIRD UNIVERSITY Development Corporation RESEARCH PARK SILICON PASTURES. medc Golden Angels Network Wisconsin Alumni Research Foundation OFFICE OF Friends CORPORATE RELATIONS Wisconsin Investment Partners, LLC Family **NanoRite** University of Wisconsin-Madison A Center for Innovation WHEDA **CENTRAL WISCONSIN CALUMET BUSINESS** VENTURE FUND **ANGELS** crowdfund MADISON DEVELOPMENT CORPORATION nenomen<mark>elle</mark> Angels fü St. Croix PEAK RIDGE MORGRIDGE **Valley Angels** The-Innovation INSTITUTE FOR RESEARCH Building your start-up from the ground up Foundation<sup>a</sup> DANEVEST TECH FUND 12 WISCONSIN Angels 80 ENTREPRENEURS' NETWORK

#### **I-Q** Corridor







#### Wisconsin Innovation Eco-System Participants

#### Wisconsin Economic Development Corporation



















The Smart Connection

Wisconsin Innovation Network

















#### "There's No Good Idea That Cannot Be Improved Upon."









#### 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.



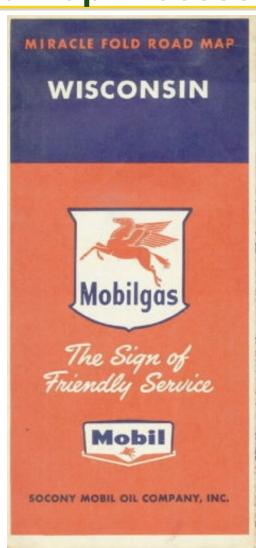




#### **Innovation America: Innovation Road Map Process**

- 1. Literature Review of Comparables
- 2. Key Stakeholder Interviews/Recommendations
- 3. Asset & GIS Mapping/Cluster Analysis
- 4. Innovation Benchmarking/Index (Peer 2 Peer)
- 5. Innovation & Entrepreneurship Resource Guide
- 6. Innovation Economic Development Organizational Analysis
- 7. Innovation & Commercialization Program Gap Analysis
- 8. Innovation Ecosystem Public Policy Recommendations
- 9. Innovation Strategic and Organization Plan
- 10. Operations & Implementation Plan
- 11.Branding & Marketing Strategy
- 12. Economic Impact Analysis Celebrate Your Success







#### **IOWA Innovation Road Map Leadership**

**Population: 3,000,000** 



Iowa Department of Economic Development



























The Voice of Iowa Business Since 1903.





#### **lowa Innovation Index - Indicators**



National	Regional	Indicator	KEY INNOVATION INDICATOR SCORECARD Indicator Subject Rankings
Ranking	Ranking	Number	Key: +: National/Regional Indicator Ranking - Strength O: National/Regional Indicator Ranking - Neutral
			-: National/Regional Indicator Ranking - Weakness
			Economic Impact
·		1	Industry Cluster Employment & Wage
N/A	N/A	2	Occupations & Wages
-		3	Household Income
0		- 4	Productivity
-		5	Corporate Sales and Manufacturing Value-added
	+	6	Manufacturing Exports
		7	Wages & Wage Growth (In Key Industry Clusters & Overall)
			Innovation Research & Commercialization
0	0	8	Royalty and Licensing Income to Universities
		9	Start-up Companies Formed from University Research
-		10	Federal Investment in University & Engineering Research
	+	11	State and Local Investment in University Science & Engineering Research
0		12	Industry & Other Support in University Science & Engineering Research
	0	13	Size of College and University Endowments
-	0	14	Patenting
++	++	15	Academic Article Output
1 2		16	Research & Development Performed
			Innovation Capital
_	+	17	Sum of all investments – all stages
		18	Targeted Industries Innovation Capital Investments
-		19	SBIR/STTR Awards
		20	Number of Public Traded Companies
TBD	TBD	21	R&D Tax Credits
TBD	TBD	22	Angel Tax Credits
			Innovation Workforce
+1	0	23	Education Level of the Workforce
-		24	Public Investment in K-16 Education
-		25	Science and Engineering Degrees
N/A	0	26	Talent Flow and Migration (Int'l and domestic)
			Innovation Location and Environment
N/A	++	27	State-based Innovation Intermediary (Public/Private Partnership)
	0	28	Broadband Internet Availability
N/A		29	E-Government Programs

NOTE: Regional strengths are based on lowa's performance as a comparison to Illinois, Kansas, Minnesota, Missouri, Nebraska, Souti Dakota and Wisconsin.

#### Road Map Projects – Resource Guide



RESOURCE DIRECTORY

#### Appanoose Economic Development Corporation

101 W. Van Buren Street, Suite 1

Telephone:

641-856-3388

Centerville, IA 52544

Website: www.appanoosecounty.org

Economic Development, Revolving Loan Fund, AIC Financial Assistance, IowaMicroloan Program

Attiliate

Tad Faris, Executive Director; aedcalirector@iowatelecom.net

collaboratively work to enhance the overall business climate of the county.

Overview: AEDC's mission is to facilitate the retention, expansion, attraction, and creation of businesses and jobs, and

Program Services: Work Opportunity Tax Credit, Enterprise Zone, HUBZone, Property Tax Abatement, Appanable Industrial Corporation, Tax Increment Financing

The Revolving Loan Fund is designed to assist small to medium sized businesses, and requires a minimum of 5 jobs be created or retained to access this program. The interest rate is 5% and the maximum repayment term is 5 years. The maximum loan amount is \$50,000.

The AIC Financial Assistance Program is designed for medium to large businesses who are expanding or considering moving their business to Appanaose County. AIC may be able to provide at least \$1,000 per job created in the form of a forgivable loan.

The lawaMicroban was created for those microbusinesses that are considered on the fringe of riskbearing capacity for most traditional financial institutions, boars are available from \$5,000 to \$35,000.

#### **ARCH Venture Partners**

8725 W. Higgins Road, Suite 290 Chicago, IL 60631 Telephor

73-380-6600

www.grchventure.com/entrepreneurs.html

Key Staff: Keith L. Crandell, Co-founder and Managing Director

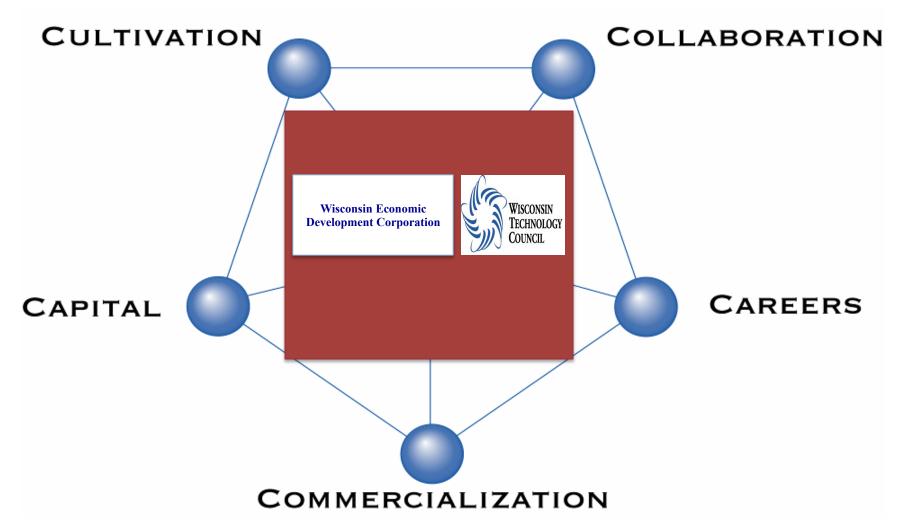
Overview: ARCH invests primarily in companies co-founded with leading scientists and enhapmeneuts, concentrating on bringing to market innovations in the sciences, physical sciences, and information technology. We enjoy special recognition as a leader in the successful commercialization of technologies developed at academic research institutions and national laboratories. If you are an enhapmeneur who has identified an apparturity to commercialize an advanced technology and you are working an a business plan or have formed a startup venture to introduce new technology in information technology, tile sciences, or physical sciences, please contact us.

Stage of Development for Investment: Seed/Early Stage

Preferred Investment Industry: Micro/Nanotechnologies, specially materials and semiconductors, biotechnology, interdisciplinary technologies.



#### Implementing a New Wisconsin Innovation Paradigm







#### **Paddling Together For Success**



Are You Pulling Alone Or.....





## Pulling Together For Success



.....Are We Pulling Together?





#### **Wisconsin Next Steps**

- WEDC needs to become a true private sector lead innovation intermediary
- Increased focus on university commercialization
   not just tech transfer
- Need to breakdown the artificial geographical barriers in the state and the expanded region (IQ Corridor)
- Need comprehensive portfolio of VC and earlystage investment programs with appropriate management & oversight
- Need for long-term integrated, Innovation Road
   Map and implementation strategy





#### **Bill Gates - Microsoft**

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







#### innovationDAILY



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