

EFFECTIVE STRATEGIES FOR GROWTH IN INTERNATIONAL MARKETS: CASE STUDIES



Rich Bendis
President and CEO
Innovation America
Editor, innovationDAILY
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The Global Innovation Imperative

- Innovation is Key to Growing and Maintaining a Country's **Competitive** Position
- **Collaboration** among **SME's** and Large Businesses, Universities, and Research Institutes is Essential for Commercialization
- **New Institutions and Incentives**, are important to support collaboration and foster innovation...
INNOVATION INTERMEDIARIES
- **Competition & Economic growth** are closely related to education/workforce, human capital, energy, climate change, environmental, natural resource, geopolitical issues & entrepreneurship



**INNOVATION
MATTERS**

Why Is Innovation Essential?

***“INNOVATION
DISTINGUISHES
BETWEEN A LEADER
AND A FOLLOWER.”***

-STEVE JOBS



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.....



Years to Reach 50 Million Users

Radio
38 years



TV
13 years

Internet
4 years



iPod
3 years



Source: Steve Burrill

60 million status updates happen on Facebook daily

Attach: 

Share

The World Has Changed and Is Changing...

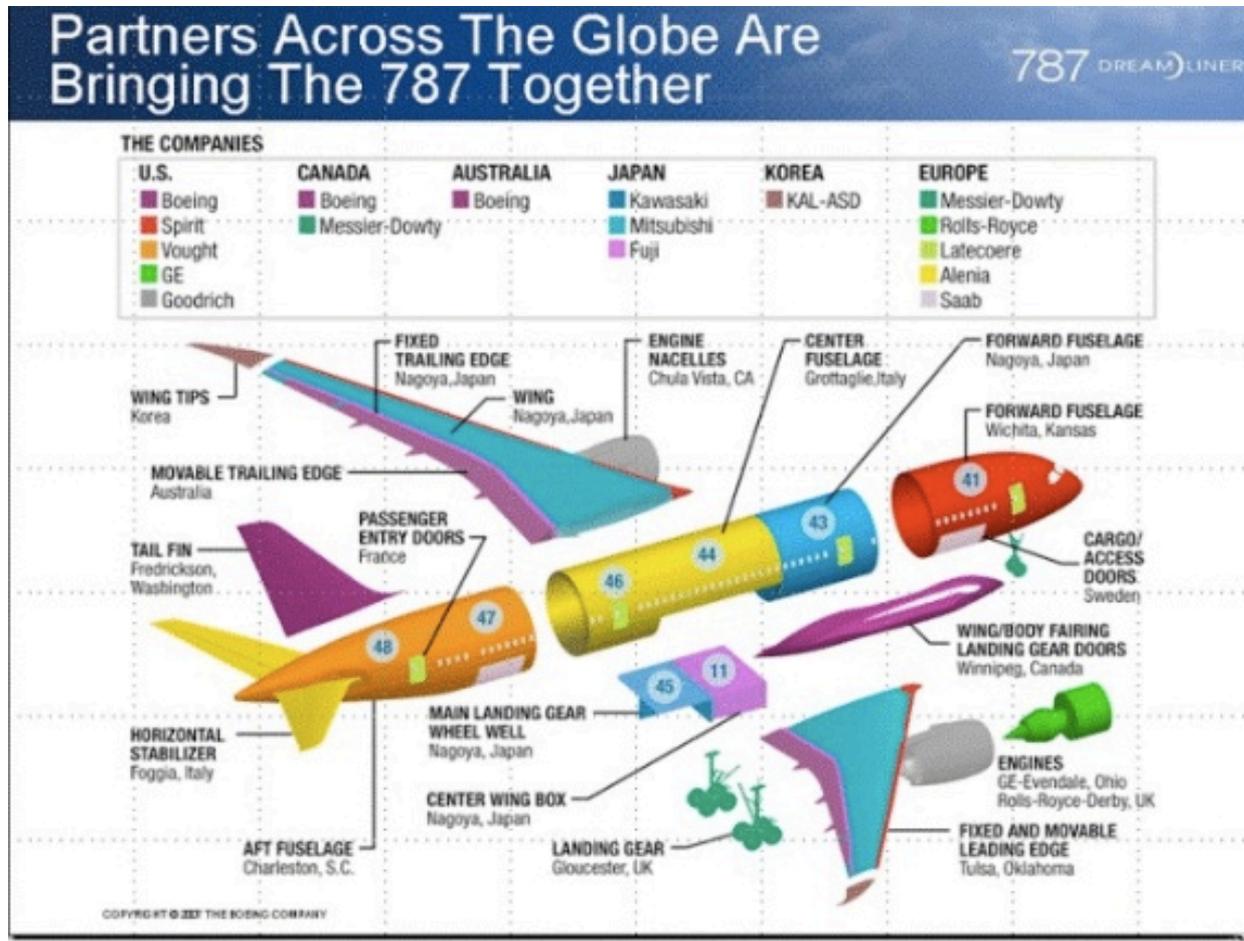
“Smart phones” (mobile connectivity devices) + Social networks that engage people



- Mobile devices like the iPad, iPhone and Android phones
 - Moved desktop browser activities to mobile devices.
 - Moved offline activities to online mobile devices.
 - Made people comfortable accessing sensitive data (e.g. bank accounts)
 - Social networks
 - Made people look for answers to their problems
 - Made people share answers to other people’s problems through their social graph

Source: Steve Burrill

Global Open Innovation



Why Do Nations Need an Innovation Strategy?

- Because technological innovation drives long-run economic growth.
- Difficulty in addressing complex and systemic challenges.
- Markets alone do not produce societally optimal levels of innovation.
- Because the stakes have been raised.



Source: Rob Atkinson AAAS 2011

What is a National Science and Innovation Strategy?

- *“Those elements of science, technology, and economic policy that explicitly aim at promoting the development, spread, and efficient use of new products, processes, and services.”*
- A well-conceived, strategic approach to drive innovation that proactively anticipates and articulates the interactions among policies across:
 - Science and technology
 - R&D
 - Commercialization strategies
 - Education & skills
 - Immigration
 - Statistics/measurement
 - Tax
 - Trade
 - Intellectual property
 - Competition/Regulatory
 - Public procurement
 - Public sector innovation

Source: Rob Atkinson AAAS 2011

Selected Nations with National Strategies

- China
- Denmark
- Finland
- Germany
- India
- Ireland
- Japan
- Korea
- Netherlands
- Norway
- Portugal
- South Africa
- Sweden
- Taiwan
- Thailand
- United Kingdom
- Uruguay
- United States

Source: Rob Atkinson AAAS 2011

What is Distinctive About Them?

Australia
Canada,
Denmark
Finland
Ireland,
Japan
Netherlands
Singapore
Korea
Sweden

All declared a goal to lead the world in transitioning to a digital economy.



Source: Rob Atkinson AAAS 2011

Ambitious Goals

Lead in Key Technology Areas:

IT: Australia, Canada, Denmark, Finland, Ireland, Japan, the Netherlands, Singapore, Korea, & Sweden

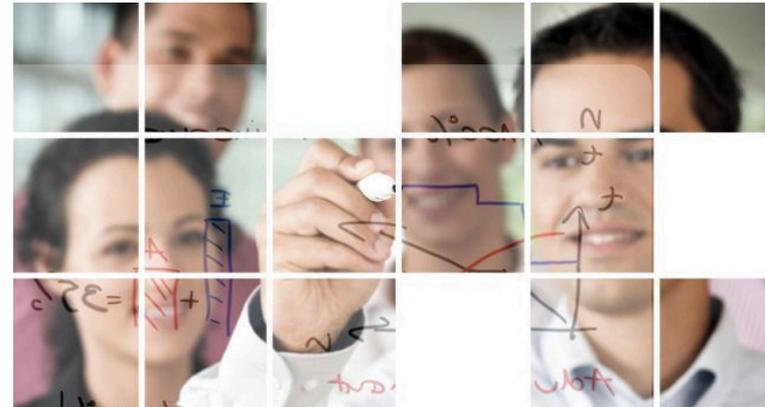


Clean Energy:

Korea, Japan and China

Significantly Boost R&D Intensity:

Korea, Canada, Turkey, China.



Source: Rob Atkinson AAAS 2011

Innovation Tax Policy

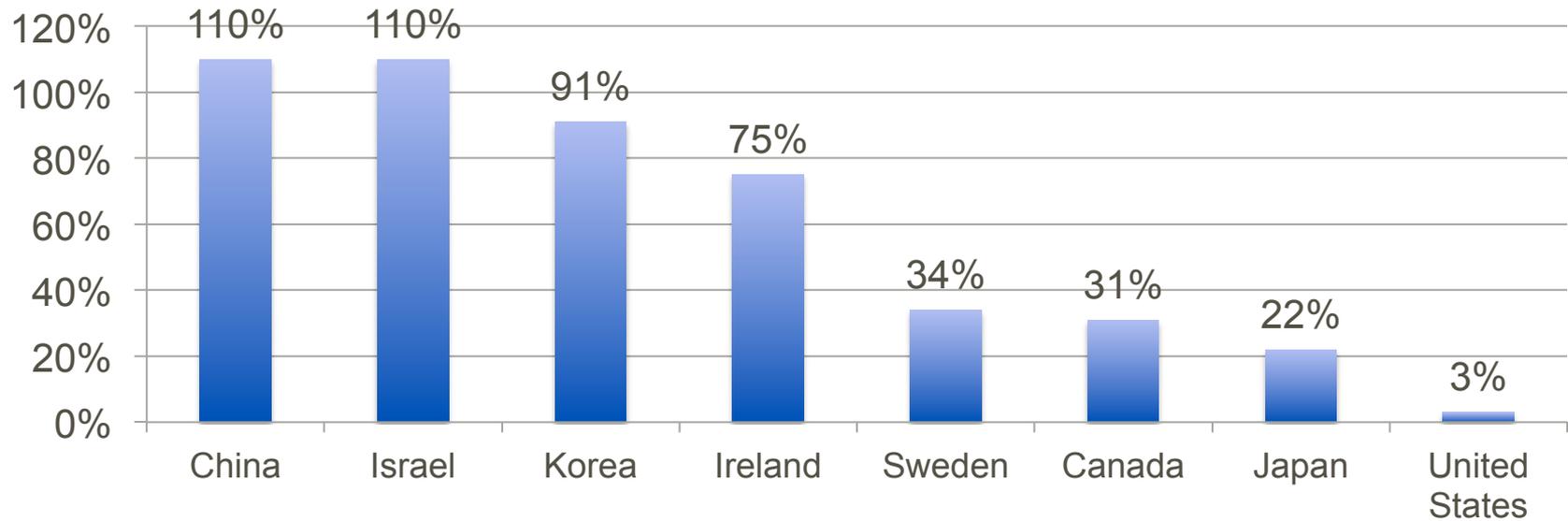
- Patent box
- Collaborative R&D tax credits (Denmark, Korea, France, Japan, Spain, UK)
- R&D tax credits to services industries; (Denmark, Netherlands, Norway)



Source: Rob Atkinson AAAS 2011

Worldwide Investment in R&D

• While U.S. R&D intensity increased by 3% percent from 1987-2008, R&D intensity increased substantially more in most other nations, including:



Source: Rob Atkinson AAAS 2011

THE BRICs



BRAZIL

Economy growing at an annualized rate of 5%

Sao Paulo will be the 5TH wealthiest city by 2025



RUSSIA

Highest level of educated population among the BRIC countries

Population set to decline from 143M (2010) to 111M (2050)



INDIA

Poised to become 5th largest consumer economy (\$1.5T) by 2025



CHINA

Rampant capitalism – Public equity markets “hot”

Importance of Major Research Universities

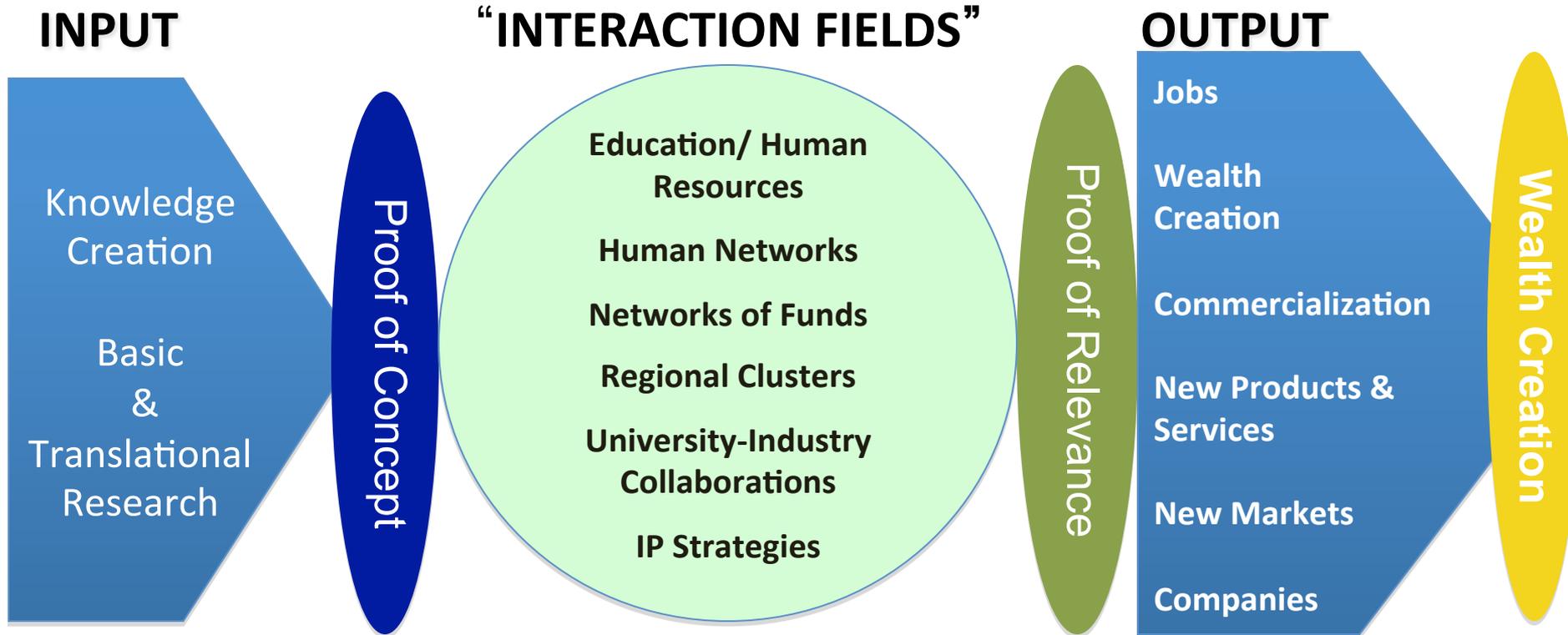
- The primary driver of the future economy and job creation will be innovation, largely driven by science and engineering (Gathering Storm Report)
- Global economic competitiveness requires the confluence of **scientific discovery** that creates **knowledge** and **technological opportunity**, **workforce talent**, and access to **enabling resources**.
- 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.

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

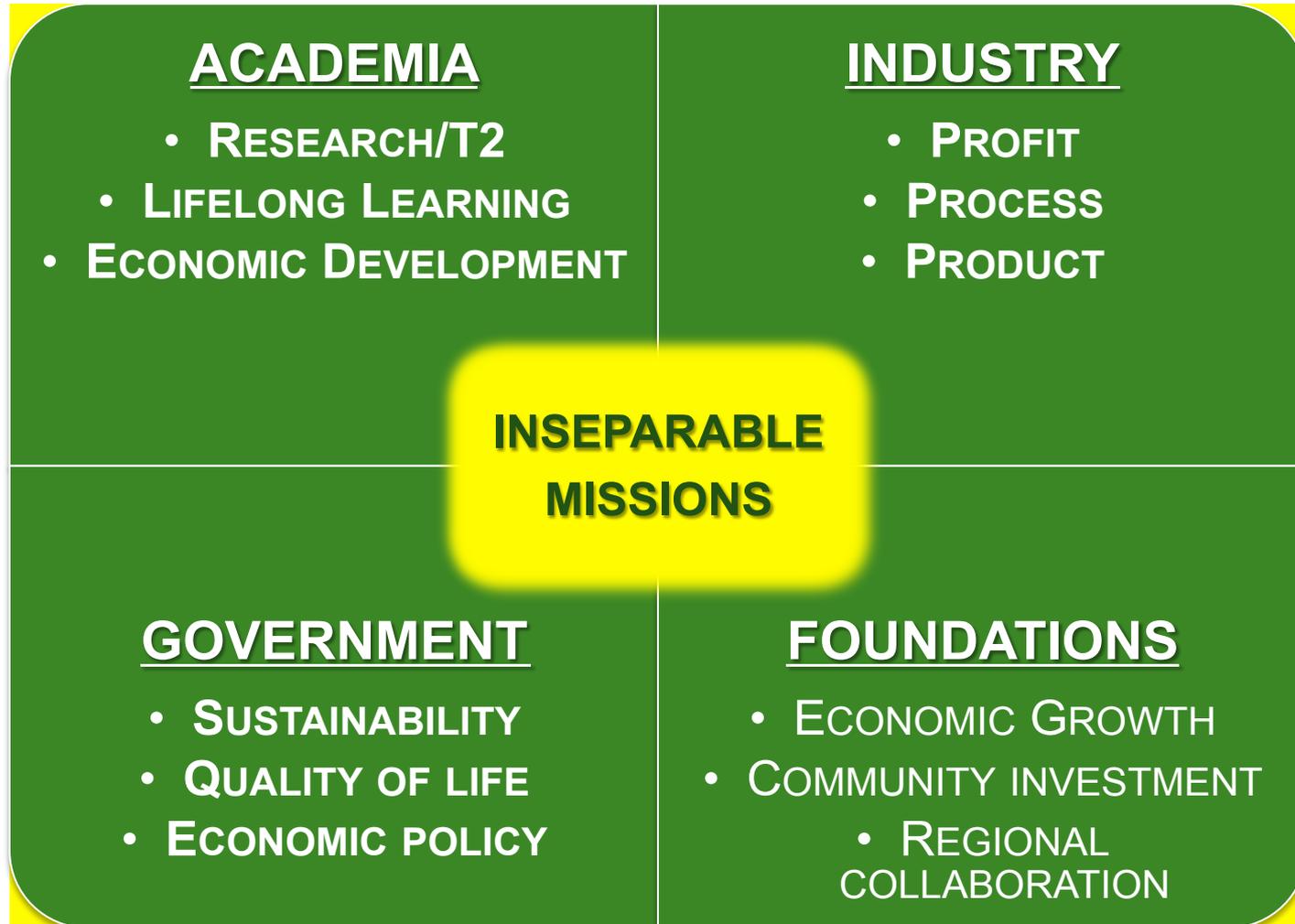


Innovation Ecosystem



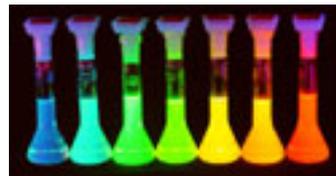
The concept of the **Innovation Ecosystem** stresses that the flow of technology and information among people, enterprises and institutions is key to a vibrant innovation process.

Private/Public Partnership



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**



Innovation Paradigm Shift

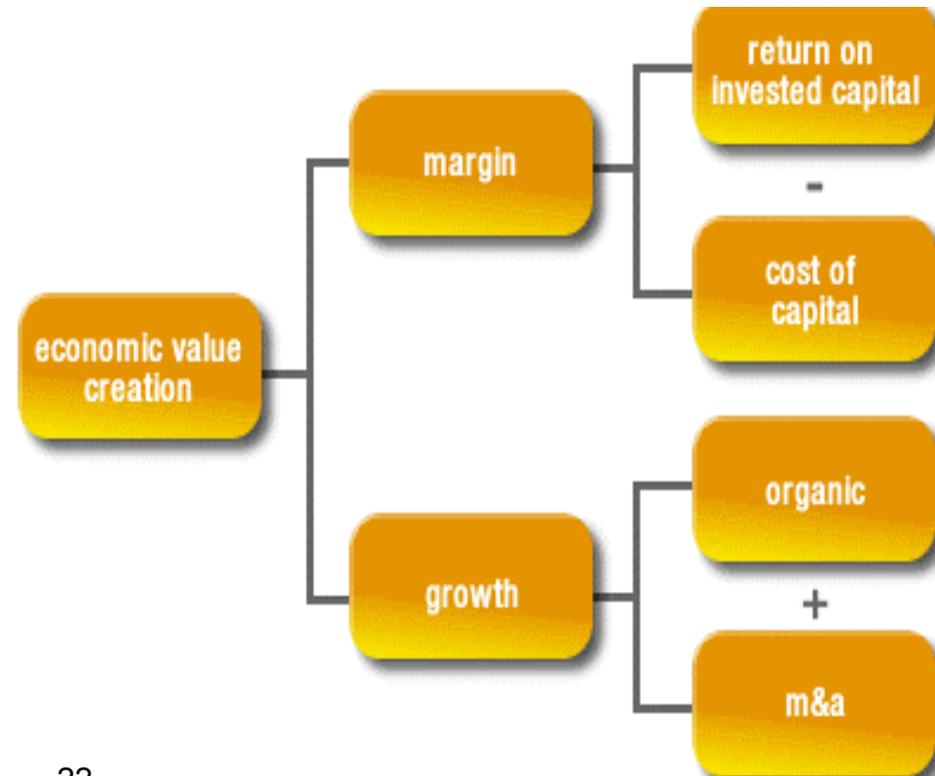
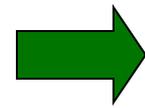
**PROOF OF CONCEPT
(Technological Feasibility)**

“It Works!”

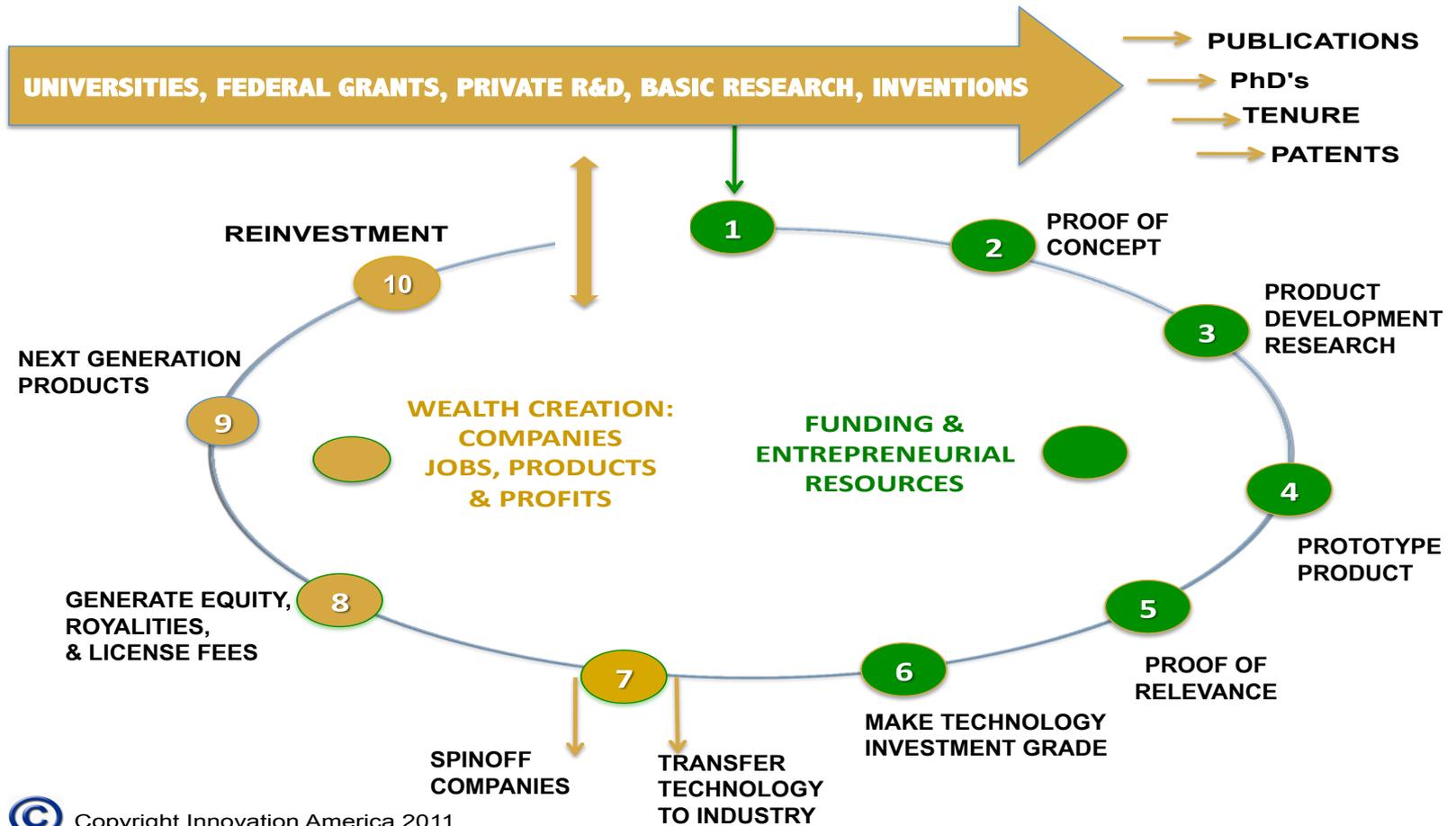


**PROOF OF RELEVANCE
(Market Pull)**

“It Works To Solve A Problem”



Innovation America Commercialization Model



Small Business



"On average and for all but seven years between 1977 and 2005, existing firms are net job destroyers, losing 1 million jobs net combined per year. By contrast, in their first year, new firms add an average of 3 million jobs," the study reports.

– Kauffman Foundation

Source: Research Series: Firm Formation and Economic Growth

- Generates 60 to 80% of net new jobs annually
- Employs 30% of high-tech scientists, engineers, and computer workers
- Produces 13 to 14 times more patents per employee than large firms



Top Reasons Why Start-ups Fail

- **Management failure**
- **Failure to raise sufficient capital**
- **Innovation does not meet a commercial need**
- **Geography**
- **Cultural factors**
- **Government laws, bureaucracy, and programs**
- **Infighting within the start-up team**
- **Problems with IP**
- **Poor business plan**
- **Unrealistic expectations**



Source: Beyond the First World – BFW News

Canada and US Cross Border Facts

- 300,000 travelers cross the Canada US Border Everyday
- 35,000 trucks cross the border everyday
- \$1.6 Billion of trade everyday



The Big Table

Film and Video Incentives in Canada (2010)

Digital Media and Animation Incentives in Canada (2010)

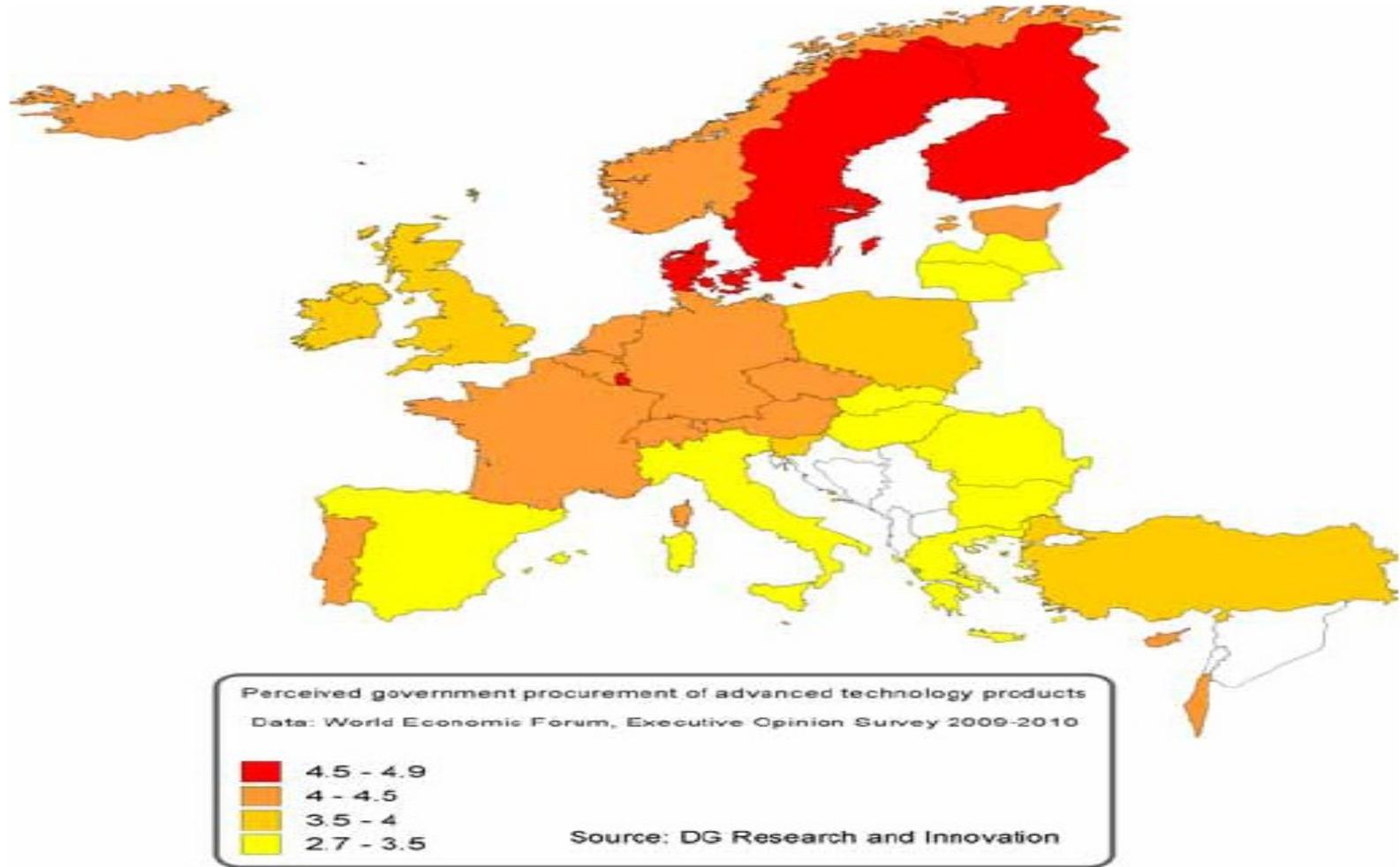
Canadian Based Digital Media Cross Border Collaborations



SAATCHI & SAATCHI
THE LOVEMARKS COMPANY



Perceived Government Procurement of Advanced Technology Products - 2009



EU: Pre-Commercial Procurement

Pre-commercial procurement:

DRIVING INNOVATION TO ENSURE HIGH QUALITY PUBLIC SERVICES IN EUROPE

Pre-commercial procurement is an approach for procuring R&D services which enables public procurers to:

- **Share the risks and benefits of designing, prototyping and testing new products and services with the suppliers, without involving State aid**
- **Create the optimum conditions for wide commercialization and take-up of R&D results through standardization and/or publication;**
- **Pool the efforts of several procurers.**

Founded: May 2003 - COTEC is a national innovation intermediary that supports innovative high growth SME's and is funded by largest private corporations in Portugal

Mission:

To promote the competitiveness of companies established in Portugal, through the development and the diffusion of a culture and practice of innovation as well as of “resident” knowledge

Vision:

To become a key agent of business innovation in Portugal, by challenging both public and private organizations of the national innovation system (NIS) and by coordinating its intervention with them

Strategic Themes:

- To promote a culture of innovation as a crucial source of company competitiveness
- To foster the practice of innovation by all the agents of the NIS
- To influence the strategic orientation of both the Portuguese and the European Innovation Systems
- To remove context barriers to innovation

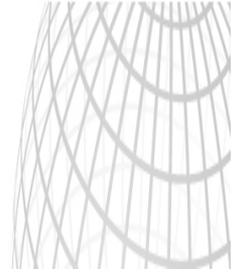
Potential of Global Adaptation of Regional Practices

FORMATION OF THE INTERNATIONAL COMMERCIALIZATION ALLIANCE

Goals:

- Promote international networking and partnerships with a potential outcome of creating new multilateral or bilateral partnerships
- Share exemplary practices in the commercialization of outcomes from research in each of our regions
- Provide feedback to support these assessments and the metrics
- Host annual conference to present and discuss the successful practices, emerging models & determine relevance universally
- Share outcomes of commercialization in our regions and the impact of publicly funded research on our customers and stakeholders.

The International
Commercialization Alliance



- Established in 2005
- 2 million Sq. Ft.
- Wet Labs
- Proof of Concept Funding
- Focus on Asia and Europe
- Relationships with JETRO (Japan), Rhone/Alps Region (France) & Belgium Trade Office (Wallonia Foreign Trade & Investment), Spain, UK and Germany
- Networks for Biosciences



Jobs! Jobs! Jobs!

Does Seed Investing **REALLY** Create Jobs?



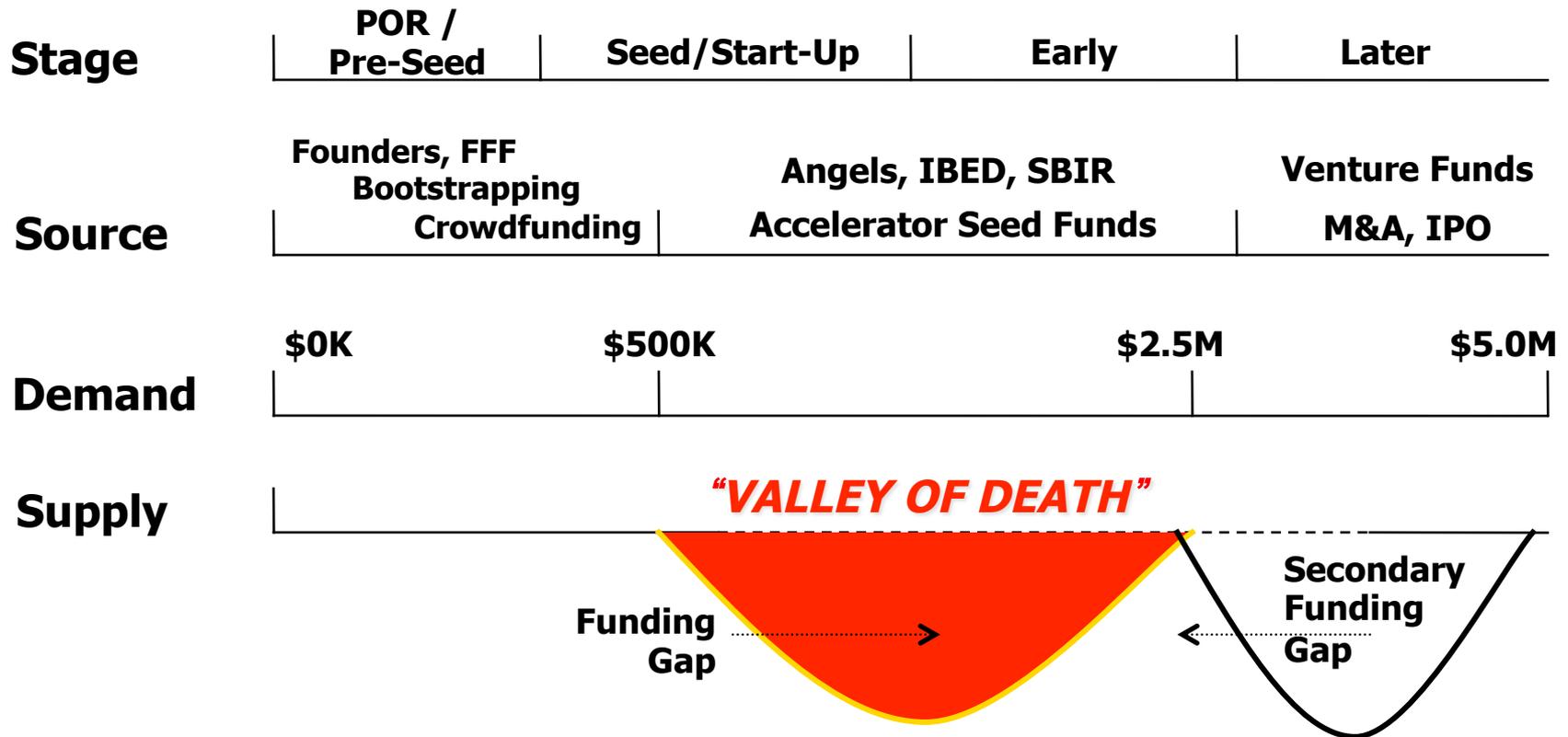
Public Investment In Job Creation

Category	State of PA	CDVCA*	State of UTAH	State of MI	Stimulus Bill
Funds Invested	\$90M	\$26M	\$60M	\$291M	\$800B
Jobs Created	8,150	3,700	2,047	28,854	4,000,000
\$ Per Job Invested	\$11,000	\$7,100	\$29,300	\$11,728	\$200,000

*Community Development Venture Capital Alliance

Innovation Capital Valley of Death

“VALLEY OF DEATH”



Funding & Resources for Innovation Capital

<u>Seed</u>	<u>IBED</u>	<u>Federal</u>	<u>Angel</u>	<u>Accelerators</u>
     	       	   <p>SBIC Program</p>    <p>NRC Industrial Research Assistance Program</p>	       	     



Traditional & Innovation-Based Development

Traditional

- Competitive Basis

Natural resources
Highways / Rail
Proximity
Costs

i.e. PHYSICAL

- Key values / offerings

Business parks
Incentives

- Lead Organization

Chambers /
EDCs

Innovation (Clusters)

Specialized talent
Networks, information
University research / professors
Market understanding
Global Reach

i.e. KNOWLEDGE

Access to research
Workforce competencies
Lifestyle

Economic developers

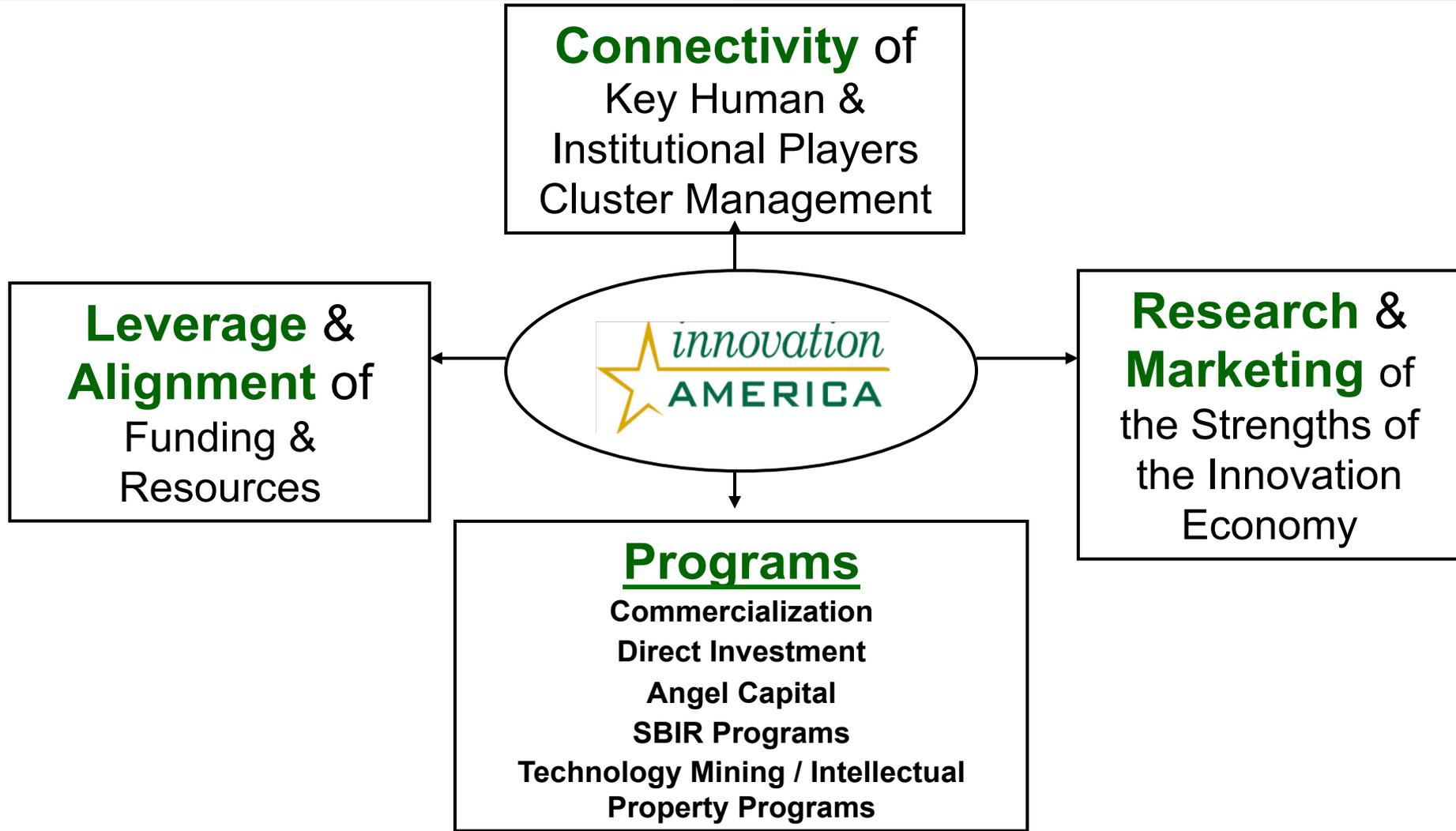
Innovation Intermediaries

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.



21st Century Innovation Intermediary



Canadian Innovation Intermediaries



European Innovation Intermediaries



<http://www.innovasjon Norge.no>



<http://www.vinnova.se>



NL Agency
Ministry of Economic Affairs, Agriculture and
Innovation

<http://www.senternovem.nl>

U.S. State Innovation Programs



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

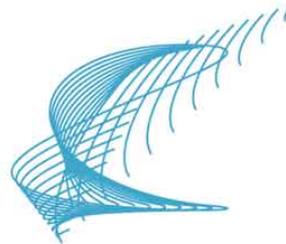
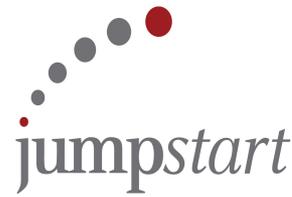
**INNOVATION
& IDEAS**

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

Regional IBED Intermediaries

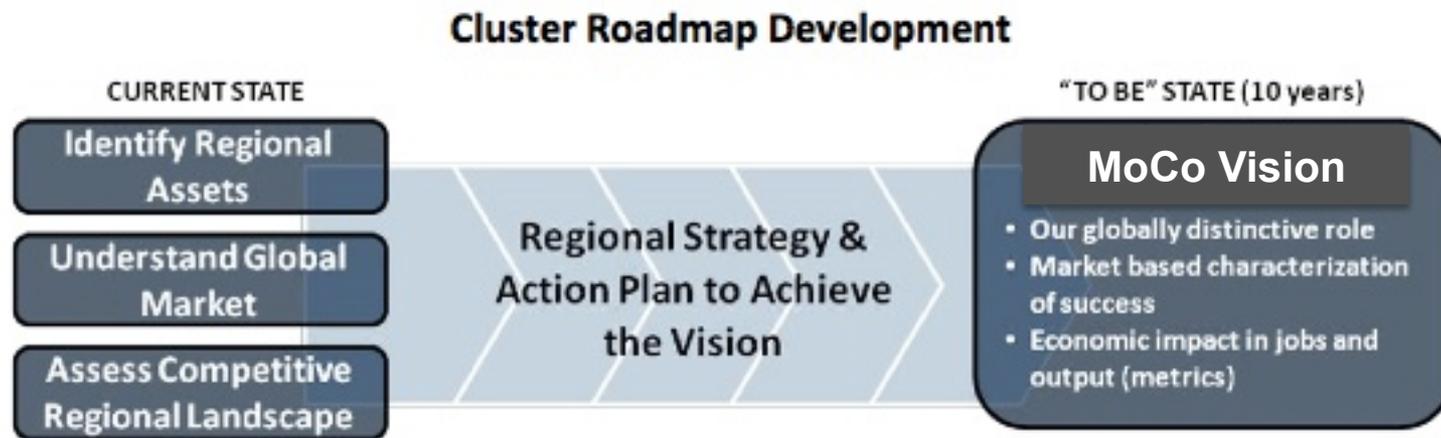


Innovation Works



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



Bill Gates - Microsoft

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





www.innovationamerica.us/daily



Richard A. Bendis
President and CEO
Innovation America
2600 Centre Square West
1500 Market Street
Philadelphia, PA 19102
(215) 496-8102

rbendis@bendisig.com

www.innovationamerica.us

www.innovationamerica.us/daily

