Friday, October 30, 2009
Brown University
Providence, Rhode Island

Presented by:
Richard A. Bendis
President and CEO
Innovation America
“It is not the strongest of species that survive, nor the most intelligent, but the ones most responsive to change.”

Charles Darwin
THE ECONOMY

• Stock market bubble followed by housing bubble
• Recession different than previous ones and more challenging to get out of
  – Unemployment rate higher for those with college degrees than in previous recessions
  – American consumers not positioned to spend money
  – National recession, not regional
  – Asia had export bubble dependent on U.S.
UNEMPLOYMENT RATE BY AGE
SOME CONSEQUENCES

- Foundations expect to give less
- People not moving
- Incomes not likely to recover in near-term
- Potential for jobless recovery
ENTREPRENEURSHIP OPPORTUNITIES

• Realities
  – Unemployed can turn to creating own company
  – More than half the Fortune 500 started during economic downturn

• Opportunities
  – Helping potential entrepreneurs explore opportunities

• Innovations
  – Growth of “entrepreneur venture development organizations” in last 10 years
• Continued fiscal difficulties
• Sorting out of the capital markets
• More opportunities for entrepreneurship
• China as a potential market if consumers spend
• Reshaping of manufacturing
• New tech frontiers (e.g., alt energy, climate change)
• Continued growth of open innovation
• Workforce issues among the U.S. population
“If a man empties his purse into his head, no man can take it away from him. An investment in knowledge always pays the best interest.”

--Ben Franklin
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
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 and develop Knowledge Economy Workforce
- Help existing industries modernize
- Diversify economy
- Develop global innovation network
IMPLEMENTING A NEW INNOVATION PARADIGM

- Willingness to deviate from traditional and parochial perspectives
- Encourage public investment and risk taking
- Developing trust through collaboration
- Ensuring the paradigm is responsive to partners’ missions
- Building consensus of all constituents through education, participation, and positive outcomes
- Move from technology-based economic development to Innovation-Based Economic Development
GOVERNMENT’S ROLE IN INNOVATION

• Long term vision and planning
• Identify gaps and trends in science, technology and innovation
• 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
The Role of Academia

Knowledge Integration

- Education
- Research
- Workforce

Resource Investment

Knowledge Creation

Continuous Learning and Innovation

Knowledge Transfer
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
• Progress is promoted by strong industry, government and university leadership

• Sustained by dynamic public/private partnerships

• These leaders create new, responsive models of governance
THE FOUR PILLARS OF INNOVATION-BASED ECONOMIC DEVELOPMENT

- Innovation
- Capital
- Collaboration
- Workforce
- Support Services
<table>
<thead>
<tr>
<th>TRADITIONAL ED VS. INNOVATION-BASED ED</th>
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<tbody>
<tr>
<td><strong>Traditional ED</strong></td>
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<tr>
<td>• Competitive Basis</td>
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<tr>
<td>Natural resources</td>
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<tr>
<td>Highways / Rail</td>
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<td>Proximity</td>
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<tr>
<td>Costs</td>
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<tr>
<td>i.e. PHYSICAL</td>
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<tr>
<td>• Key values / offerings</td>
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<td>Business parks</td>
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<td>Incentives</td>
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<tr>
<td>• Lead Organization</td>
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<td>Chambers / EDCs</td>
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WHAT IS AN INNOVATION INTERMEDIARY?

• An Organization at the Center of the region’s, state’s or country’s efforts to align local technologies, assets and resources to work together on advancing Innovation.
INNOVATION PARADIGM SHIFT

PROOF OF CONCEPT
(Technological Feasibility)
“It Works!”

PROOF OF RELEVANCE
(Market Pull)
“I’ll Buy It”

\[ \text{economic value creation} = \text{margin} - \text{cost of capital} + \text{organic} + \text{m& a} \]
Does Seed Investing REALLY Create Jobs?
In the three years after the 1991 recession, Companies of less than 20 employees created 89% of net new jobs while companies over 500 employees created a net of 4%
In the three years after the 2001 recession, Companies of less than 20 employees created 107% of net new jobs while companies over 500 employees eliminated a net of -24%.

Source: Small Business Administration
There is concrete evidence that KTEC’s efforts are improving the entrepreneurial climate in Kansas, which was ranked 8th in Nation for “Gazelle Jobs” - according to the 2008 State New Economy Index. Rapid growth “Gazelle” companies account for 80% of new jobs created.

The New Economy Index also ranked Kansas a “Top Mover” in “Fastest Growing Firms.” Through our direct equity investments and business assistance, KTEC has helped Kansas experience a large increase in the number of “fast growing firms” (i.e. those with growth exceeding 200% over 4 years). These firms provide a strong base for the state’s current and future growth.
What is Unique About PIPELINE?

• Statewide: “Big City” with Smaller Communities bonding across state
• Top talent--focused on smaller group/high growth
• Immersion Experience
• Entrepreneur focused
• Ecosystem Building

“PIPELINE is the next step in the evolution of entrepreneurial capacity building.”
Dan Berglund, President and CEO, SSTI
Tell Me More

- Statewide
- Technology Portfolio
- Fellowship Basics - Immersion
  Selection
  Modules
  Mentors
  Peers
  Networks - state and national
  Innovator of the Year
  Alumni Program
Intangibles

- Knocking Down Silos
- Entrepreneurs Engage
- Rural Opportunity
- Raises Visibility of All Resources
- Aggressive Ecosystem Building
COME HOME TO KANSAS INITIATIVE

- #1 issue for bioscience and IT companies is talent recruitment

- Garmin, LSI Logics, Perceptive Software, etc.

- KTEC & partners launched www.comehometokansas.com to address issue

- Site shows thousands current technology job openings, plus strong cluster of recognizable companies in Kansas

- Software crawls internet to match people with career opportunities
INNOVATION PHILADELPHIA’S MISSION

A Public/Private Partnership created to:

- Grow the Wealth and
- Workforce of the Greater Philadelphia Global Innovation Economy
LEVERAGING THE RESOURCES OF THE GREATER PHILADELPHIA REGION

3 states
11 counties

- Pennsylvania: Bucks, Montgomery, Philadelphia, Chester, Delaware
- New Jersey: Mercer, Burlington, Camden, Gloucester, Salem
- Delaware: New Castle
Innovation & Entrepreneurial Index

Is our glass half empty or half full?
Churning the Greater Philadelphia Innovation Economy

A Roadmap for Regional Growth

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

— Harry S. Truman
<table>
<thead>
<tr>
<th>Investment</th>
<th>Commercialization</th>
<th>Global &amp; Regional Workforce / Economic Development</th>
<th>Branding, Research &amp; Marketing</th>
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</thead>
<tbody>
<tr>
<td><strong>ESF</strong> Economic Stimulus Fund</td>
<td><strong>MACC</strong> Mid-Atlantic Commercialization Corporation™</td>
<td><strong>KIP</strong> Knowledge Industry Partnership</td>
<td><strong>GM</strong> Greater Philadelphia Global Partners</td>
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<td><strong>ResearchDollars Fund</strong></td>
<td><strong>Phoenix IP Ventures</strong> World’s Best Technology Network</td>
<td><strong>careerPHILLY</strong></td>
<td><strong>IP FUND</strong> Innovative Pennsylvania Fund</td>
</tr>
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<td><strong>INNNOVATION PARTNERSHIP</strong></td>
<td><strong>Bio Advance</strong></td>
<td><strong>GP2</strong> Greater Philadelphia Global Partners</td>
<td><strong>IP FUND</strong> Innovative Pennsylvania Fund</td>
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<td><strong>MAG</strong> Mid-Atlantic Angel Group</td>
<td><strong>IP Innovation Philadelphia</strong></td>
<td><strong>Creative Economy</strong></td>
<td><strong>IP FUND</strong> Innovative Pennsylvania Fund</td>
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<td><strong>Science Center</strong></td>
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KNOWLEDGE INDUSTRY PARTNERSHIP & CAREER PHILLY

ATTRACTION
GPTMC, Campus Visit/Philadelphia

ENGAGEMENT
Campus Philly, City of Philadelphia

RETAIEN
Innovation Philadelphia, CareerPhilly

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

Attracting
And
Retaining
College-educated
Workers
TALENT IS THE CURRENCY OF THE NEW ECONOMY

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

The Washington Post
11.09.03

HOW GEN-Y DECIDES WHERE TO LIVE AFTER COLLEGE

Choose place before job

64%

Choose job before place

36%

CEOS for Cities
Human Capital Matters

Education Drives Metro Prosperity

\[ y = 11378 \ln(x) + 37906 \]
\[ R^2 = 0.6318 \]

Source: Impresa calculations, Census Bureau data, 2000

Theories of Urban Success
REGIONAL HIGHER-ED CENTRIC COLLABORATIONS
REGIONAL HIGHER-ED CENTRIC COLLABORATIONS

Different objectives. A shared focal point.

WHO BENEFITS:

| ACADEMIA   | δ enrollment, retention, faculty ++ |
| ECONOMIC DEVELOPMENT |  Visitor & student spending |
| CIVIC/REGION   | δ grad retention, new companies/jobs |
| BUSINESS      | δ perceptions, attitudes, revenue |
| PHILANTHROPY  | δ new hires, interns, revenue |
|              | δ workforce dev., edu. attainment |
LEVERAGING THE TALENT PIPELINE

1. Earning HS Degree
2. Going to College
3. College Life
4. College to Career
5. 2nd Job & Location

ROAD TO COLLEGE
- Motivations

COLLEGE STUDENT LIFE-CYCLE
- Perceptions
- Experiences
- Internships

NEW PROFESSIONAL
- Connections

Enroll ➔ Engage ➔ Employ
Philadelphia, PA
Looking back to . . . 1999

“Pause to consider America’s great college towns and there’s a good chance that Philadelphia doesn’t come to mind.”

Chronicle of Higher Education
Philadelphia abounds with colleges and universities and spectacular beauty. The revitalized downtown has become an alluring arts, entertainment, and cultural center.”

The New York Times

PHILADELPHIA IS “ONE BIG CAMPUS”

Five years later . . . 2004
PHILADELPHIA IS "ONE BIG CAMPUS"
Philadelphia’s College Kick-off
The largest multi-campus student orientation event in the country
CONNECTING STUDENTS AND THE CITY
EDUCATION BEYOND THE CLASSROOM

Community Service

The Arts

Internships

Cultures
CONNECTING STUDENTS AND EMPLOYERS

6,000 students | 500 companies | 4,100 internships
83 colleges & universities
LEAD PARTNERS IN THE PHILADELPHIA INITIATIVE

Tourism

Civic

Mayor

Governor

Econ. Dev.

Knowledge Industry Partnership
2,300 recent graduates :: Fall, 2003

The Challenge:

9% of those not from the region remain after college.

25% of all graduates leave Philadelphia for "someplace new."
The Good News:

- 64% of all graduates remain in the region after college.
- 86% of Philadelphia’s own stay in the area after graduating.

2,300 recent graduates :: Fall, 2003

Available at www.collegia.com
2,300 recent graduates :: Fall, 2003

1. **Internships**
   - Well over half of all students who interned locally chose to stay.

2. **Academic Focus**
   - Retention rates varied greatly based on major (25% to 63%)

3. **Personal Connection**
   - 60% of stayers rated the region 8 or higher.
   - Only 4% of stayers rated Philly 4 or lower.

4. **Practical Matters**
   - Philly’s affordability and housing stock were both key factors for stayers.
K I P: HOW DO WE KNOW IT’S WORKING?

City of Brotherly love is named best for grads
Survey takes into account cost of living and availability of good jobs

By Jane Hodges
MSNBC contributor
updated 7:26 a.m. ET, Tues., April 29, 2008

Joey Hyde, a 25-year old physics grad student at the University of Pennsylvania, likes living in downtown Philadelphia because he can get around without a car, make spontaneous plans with friends or his fiancée for a night on the town, and enjoy a great meal at his favorite upscale Cuban restaurant for half of what it would cost in Manhattan.

“Philadelphia is pretty livable for people my age,” says Hyde, a Florida native who moved to the city at 22 after
COLUMBUS, OHIO: STUDENT ENGAGEMENT PROJECT

SURVEY SAMPLING

1,768 enrolled students at seven area schools

- 1,720 online surveys
- 48 personal interviews
- 30% from Columbus
- 54% from elsewhere in OH
- 16% from outside OH
OVERALL STUDENT PERCEPTIONS OF COLUMBUS

Notable Quotes

positives
• “If you want to step outside your comfort zone, there’s a million things you can do here.”
• “There are so many things in Columbus that I just don’t know about.”
• I’m grateful that the ideas of Columbus area students are being taken into consideration.”

negatives
• “It’s hard to feel connected to Columbus and no one cares if I do.”
• “Columbus needs to promote itself better. There are plenty of activities, but I don't find out about them until they are over.”
“DO YOU EXPECT TO REMAIN IN THE REGION UPON GRADUATION?”

If ‘no’ which best captures your main reason for leaving?

- My job prospects are better elsewhere.
- Live in bigger, more vibrant city.
- I’ve done Columbus; time for a change.
- I’ll be going to grad school elsewhere.
- “Other”
- I’m hoping to live closer to home and family.

Top takeaway:
How students feel about the Columbus region … positive or negative … has a demonstrable impact on his/her decision to stay or leave.
COLUMBUS STUDENT ENGAGEMENT PROJECT:
KEY TARGET AREAS

1. **Communications Channels**
   - Web site / Pocket guide / ezBlasts
   - On-campus marketing / Links

2. **Professional Development**
   - Internships / Advice / Part-time jobs / Advice
   - Summer network / Permanent jobs

3. **Visit Experience**
   - Hotel program / Student discounts
   - Program publicity / Citywide event(s)

4. **Transportation**
   - Public transit / By car / Parking
   - Maps & directions / Campus shuttles

---

Enroll

Engage

Employ
Outcomes & impacts

1. Enhanced student experiences both personally and professionally
2. Stronger connections between students and local employers
3. More frequent, more enjoyable off-campus exploration
4. Heightened “aura” as a popular city for young people
5. More and better college students

More graduates remaining in the region after college
COLUMBUS CORE MESSAGING
ATTRIBUTES

Athletic heritage
Winning traditions
Famous people & brands

Corporate giants
Seat of power
Local achievers

Battelle
Innovative businesses
Portfolio of colleges
Coaching Excellence
Cross-registration
Tech Columbus

Short North
“SF of the Midwest”
Limited Brands / PINK
Indie Art Capital
Abercrombie
Collegiate image

Smarts

Friendly people
Easy access to city
Great internships

Size

Small town feel
Big city resources
Variety

Success

easycolumbus

Style
NORTHEAST OHIO STUDENT MARKETING COUNCIL
COURTING STUDENTS OF COLOR
STUDY IN PHILADELPHIA
INTERNATIONAL RECRUITMENT PARTNERSHIP

INTERNATIONAL STUDENT RECRUITMENT

KOREA :: 2008
BOSTON MULTI CULTURAL GUIDE

Collegia publishes new

Multicultural guide for
Boston-area college students
MORE CITIES----MORE PROGRAMS
<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
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<tbody>
<tr>
<td>1.</td>
<td><strong>Discovery</strong>&lt;br&gt;Student perceptions / stakeholder interviews / assets inventory / scale</td>
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<tr>
<td>2.</td>
<td><strong>Messaging</strong>&lt;br&gt;Determine key attributes / core messaging / tone / name</td>
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<tr>
<td>3.</td>
<td><strong>Production</strong>&lt;br&gt;Draft plan / gather content / produce core materials / Web, print, ID</td>
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<tr>
<td>4.</td>
<td><strong>Promotion</strong>&lt;br&gt;Launch program / Build awareness &amp; trial / online / on-campus / distribute</td>
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<td>5.</td>
<td><strong>Implementation</strong>&lt;br&gt;Execute to plan / monitor results / expand program / recruit new partners</td>
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# KEYS FOR EFFECTIVE COLLABORATION

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<tr>
<th>Eight Success Conditions</th>
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<tr>
<td>1. Bold, cross-sector leadership</td>
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<td>2. Shared focus (e.g. brain drain)</td>
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<tr>
<td>3. Rooted in higher ed, but not driven by higher ed</td>
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<td>4. Appropriate motives</td>
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<td>5. Embrace uniqueness</td>
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<tr>
<td>6. Ask students; don’t assume</td>
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<td>7. Align with other messaging</td>
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<td>8. Choose your public face wisely</td>
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Intelligent Communities and communications networks have the ability to transform economic, political, and social relationships on a global scale.

- In the past, organizations strategized to gain **COMPETITIVE** advantage.
- The emphasis in the future will be to gain **COOPERATIVE** advantage.
- A core competency needed in individuals, organizations, and regions alike is **CONNECTIVITY**.
• Willingness to deviate from traditional and parochial perspectives
• Encourage public investment and risk taking
• Developing trust through collaboration
• Ensuring the paradigm is responsive to partners' missions
• Building consensus of all constituents through education, participation, and positive outcomes

IMPLEMENTING A NEW RHODE ISLAND INNOVATION PARADIGM
“Somebody has to do something, and it's just incredibly pathetic that it has to be US.”

--Jerry Garcia of the Grateful Dead

The US is YOU!
Richard A. Bendis
President and CEO
Innovation America
2600 Centre Square West
1500 Market Street
Philadelphia, PA 19102
(215) 496-8102
rbendis@bendisig.com

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