RAIN ANNUAL MEETING
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University City Science Center
Philadelphia, PA

Federal Innovation Update

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President & CEO
NASVF

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President & CEO
Innovation America
U.S. No Longer Home To:

• Largest research parks: China, Middle East and Europe
• Most efficient university tech commercialization: United Kingdom
• Highest per capita of technology start ups: Israel
• Most generous international R&D corporate tax credits: 17 other countries
1. **Support research park infrastructure** and the development of Communities of Innovation (S. 583)

2. **Improve university technology transfer**: reform the federal grant and contract university funding model to encourage commercialization in a new OMB Circular A-21.1 focused on removing choke points

3. **Keep more corporate R and D in US**: eliminate the test of university patent licensing in determining “private use” restrictions in facilities financed with tax exempt bonds (IRS Revenue Procedure 2007-47)
4. **Improve technology commercialization from federal laboratories** by creating a Congressionally chartered technology intermediary foundation to improve working with industry, based on best state/university practices.

5. **Connect federal researchers** with private companies with new Land Grant Act for federal labs.

6. **Ensure new federal funding initiatives** don’t penalize university or state funded start ups: e.g., Qualified Therapeutic Tax Credit (QTTC) in Health Care Act.
7. **Expand the** corporate R&D tax credit; give extra benefit for working with US universities

8. **Reform export** controls: higher controls over smaller set of technologies; modernize rules to encourage corporate/university partnerships

9. **Reauthorize now** the SBIR/STTR program for minimum 10 years

America Competes Reauthorization Act 2010

- HR5161 was passed in the House 5/28/10
- Referred to Senate Committee on Commerce, Science and Transportation on 6/29/10.
- National Nanotechnology Initiative
- Networking & Information Technology R&D
- OSTP provisions
- NSF
  - Research & Innovation
  - STEM Education & Workforce Training
- NIST
- DOE
  - ARPA/E
  - Energy Innovation Hubs
  - Cooperative Research & Development Fund
SBIR

• SBIR expires 8/1/10 w/o reauthorization except for DOD (10/1/10)
• House – geared to larger grants & supported by NVCA & BIO
• Senate – supported by small business & general mainstream
• Revised Funding Levels:
  – Phase I: Up to $150,000 (Varies by agency)
  – Phase II: Up to $1M (Varies by agency)
Innovative Federal Initiatives
Regional Innovation Clusters Initiative (RICs)

RICs are a geographically-bounded, active network of similar, synergistic or complementary organizations which leverage their region’s unique competitive strengths to create jobs and broader prosperity.
Why the White House is Interested in Promoting RICs

- Regions can work closely with the federal government to consciously focus on the creation of shared advantages within clusters to:
  - create jobs
  - create businesses
  - stimulate long-term economic growth.

Sallet, Paisley, Masterman, “The Geography of Innovation”. Center for American Progress. 9/2/09

- Leverage federal programs to “get more bank for the buck” and create a multiplier effect – Stronger regional economies contribute to stronger national economy

- Leverage existing federal dollars with funds from state, regional and local public and private sources

- Promote more efficient grant making; more closely align federal research dollars and opportunities to commercialize; create opportunities for new jobs, better paying jobs
Rapid Innovation & Competitiveness Initiative (RIC)

Goals:
• Increase the Nation’s return on its scientific investment
• Collapse the timescale of technological innovation
• Stimulate the economy and enhance competitiveness

Approach:
• Coordination and Advanced Planning
  – Partners from industry, academia, and government develop a shared vision of an industry sector’s research needs via a technology roadmap
• Research and Knowledge Transfer
  – Industry and government fund goal oriented basic research, measurement science research, and standards development based on the needs and priorities of the roadmap
  – Periodically re-evaluate the impact and priority of that research
  – Sponsor postdoctoral fellowships and personnel exchanges to facilitate tacit knowledge transfer
• Transition scientific findings to commercial products
  – Provide a framework that facilitates regional government and venture-capital support, enabling a clear path to commercialization
Regional Innovation Clusters

- **Seattle-Bellevue-Everett, WA**
  - Aerospace Vehicles and Defense
  - Fishing and Fishing Products
  - Analytical Instruments

- **San Francisco-Oakland-San Jose Bay Area**
  - Communications Equipment
  - Agricultural Products
  - Information Technology

- **Los Angeles Area**
  - Apparel
  - Building Fixtures, Equipment and Services
  - Entertainment

- **Denver, CO**
  - Leather and Sporting Goods
  - Oil and Gas
  - Aerospace Vehicles and Defense

- **Wichita, KS**
  - Aerospace Vehicles and Defense
  - Heavy Machinery
  - Oil and Gas

- **Chicago**
  - Communications Equipment
  - Processed Food
  - Heavy Machinery

- **Pittsburgh, PA**
  - Construction Materials
  - Metal Manufacturing
  - Education and Knowledge Creation

- **Boston**
  - Analytical Instruments
  - Education and Knowledge Creation
  - Communications Equipment

- **Raleigh-Durham, NC**
  - Communications Equipment
  - Information Technology
  - Education and Knowledge Creation

- **Atlanta, GA**
  - Construction Materials
  - Transportation and Logistics
  - Business Services

- **Houston**
  - Oil and Gas Products and Services
  - Chemical Products
  - Heavy Construction Services
**Energy Regional Innovation Cluster (E-RIC)**

- **Goal**: Spur regional economic growth while developing innovative energy efficient building technologies, designs, and systems.
- 7 federal agencies released a combined E-RIC Funding Opportunity Announcement (FOA) making up to $129.7 million available over five years to support the cluster.

<table>
<thead>
<tr>
<th>Federal Agency</th>
<th>Funding Levels</th>
<th>Eligibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOE</td>
<td>Up to $22 million in the first year of the award (with additional amounts of up to $25 million per year for four additional years)</td>
<td>Energy Innovation Hub based at a university, DOE national laboratory, nonprofit organization, or private firm, partnering closely with local or state government officials</td>
</tr>
</tbody>
</table>
| EDA            | • Up to $3 million  
• Up to $2 million | Public Works & Economic Development funds  
Economic Adjustment Assistance funds |
| NIST/MEP       | Up to $500,000 for a one-year award, with the possibility of adding additional amounts of up to $500,000 per year for up to two additional years | Available to an existing DOC-funded NIST/MEP Center that will use the additional funds to provide services dedicated to the Consortium's effort to support the E-RIC and transition technology to industry |
| SBA            | Up to $300,000 in the first year, with three one-year options for renewal grants up to $300,000 per year | Available to an existing SBA-funded Small Business Development Center that will use the additional funds to provide services dedicated to the Consortium's effort to grow the E-RIC. |
Agricultural Technology Innovation Partnership ATIP

USDA / ARS ATIP and DoD OTTPIN Networks
(Dotted lines indicate Partners with Partnership Intermediary Agreements not yet formalized by signature)

TechLink
MILTECH
FirstLink
WSRC
Ben Franklin Technology Development Authority
KANSAS BIOECONOMY AUTHORITY
Center for Innovation at Arlington
think big think often
SpringBoard
SpringBoard

June 11, 2010
USDA ARS
United States Department of Agriculture Agricultural Research Service
NASVF Fostering Innovation Capital
Department of Commerce - EDA

• i6 Challenge - $12 million innovation competition administered by the EDA in partnership with the NIH & NSF
  • Awards up to $1 million to 6 winning teams with the most innovative ideas to drive technology commercialization and entrepreneurship in their regions.
  • NIH and NSF will award a total of up to $6 million in supplemental funding to their SBIR grantees that are associated or partnered with the winning teams

National Advisory Council on Innovation and Entrepreneurship

RoseAnn B Rosenthal
Our Regional Representative

National Advisory group that will support President Obama's innovation strategy by helping to develop policies that foster entrepreneurship and identifying new ways to take great ideas from the lab to the marketplace to drive economic growth and create jobs.
SBA create a $1 billion Small Business Administration (SBA) grant program for VC funds to invest in early stage small businesses in life sciences and other industries.

The Small Business Lending Fund Act of 2010 (H.R. 5297) includes a provision that
- seeks to create the Small Business Early Stage Investment Program, under which the SBA would commit equity financing to investment firms to make new and follow-on investments.

Investment companies could receive up to $100 million under the fund, with the firm contributing a matching amount of capital from a non-federal source for each investment made.

Investment companies must make all of their investments in small businesses, of which half must by in an early stage small business.

An early stage small business is defined as one that has less than $15 million in gross annual sales for the previous three years.
Representative Rush Holt (NJ) Bills

R&D Tax Credit:
- Temporary Bonus for Qualifying Research Expenses
- Extending credit to 12/31/2011
- Transferability of Credit

Credit for investments in small innovation companies:
- 20% credit up to $100K per year/per taxpayer
- Qualified equity investment
- Qualified high-technology-small business concern (fewer than 500 employees)
- Carry over provision
Dodd – Frank Bill

- **Omitted:** Required filing with the SEC in connection with any seed or angel financing

- **Good News:**
  - Leaves the net worth test at $1 million and leaves the annual-income test at $200,000 individually and $300,000 jointly.

- **Bad News:**
  - Net-worth test no longer includes the value of the investor’s principal residence.
  - Permits the SEC to conduct an immediate review and modification of the annual-income test if “deemed appropriate for the protection of investors. . . .” In other words, the annual-income test may go up – but we’ll have to wait and see.

- **New Requirements:**
  Requires the SEC in four years (and once every four years thereafter) to review the “accredited investor” definition “in its entirety” and make appropriate changes
Challenges
### Innovation Capital Valley of Death

#### “VALLEY OF DEATH”

<table>
<thead>
<tr>
<th>Stage</th>
<th>POC / Pre-Seed</th>
<th>Seed/Start-Up</th>
<th>Early</th>
<th>Later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>Founders</td>
<td>Angel Groups, TBED, SBIR, Seed Funds</td>
<td>Venture Funds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demand</td>
<td>$25K</td>
<td>$100K</td>
<td>$500K</td>
<td>$2,000K</td>
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</table>

**Supplementary Information**
- Innovation Capital Valley of Death
- Funding Gap
- Secondary Funding Gap

**Logos**
- Innovation America
- NASVF
- RAIN Regional Affinity Incubation Network
## Public Investment in Job Creation

<table>
<thead>
<tr>
<th>Category</th>
<th>State of PA</th>
<th>CDVCA*</th>
<th>State of UTAH</th>
<th>State of MI</th>
<th>Stimulus Bill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds Invested</td>
<td>$90M</td>
<td>$26M</td>
<td>$60M</td>
<td>$291M</td>
<td>$800B</td>
</tr>
<tr>
<td>Jobs Created</td>
<td>8,150</td>
<td>3.700</td>
<td>2,047</td>
<td>28,854</td>
<td>4,000,000</td>
</tr>
<tr>
<td>$ Per Job Invested</td>
<td>$11,000</td>
<td>$7,100</td>
<td>$29,300</td>
<td>$11,728</td>
<td>$200,000</td>
</tr>
</tbody>
</table>

*Community Development Venture Capital Association
Other Countries Response – Innovation

Cowen launches €500m Fund of Fund plan to make Ireland Europe’s Innovation Hub……..

Israel…. now know as the Start Up Nation with the most friendly entrepreneurial culture replacing the US……..

UK Government Unveils Plans for £1BN Venture Capital Fund of Funds……..

Government of Canada Announces $450 Million in New Funding for BDC to Assist Canadian Businesses…
IA Federal Recommendations

- Early-stage innovative jobs stimulus fund of Funds (FOF)
- Reauthorization of the SBIR Program & Technology Innovation Program (TIP)
- Small Business Investment Company Program
- National Angel Capital Tax Credit Program
- Creation of a Federal R&D Tax Credit Program with transferability of the earned tax credits
- Create the 1st electronic Innovation & Entrepreneurship Clearinghouse
Building An Innovation Coalition

Creating Communities of Innovation
NASVF Annual Conference

17th Annual NASVF International Conference
October 13-15, 2010
Baltimore, Maryland

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A Call to Action

“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!
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