



**ASSOCIATION OF
UNIVERSITY
RESEARCH
PARKS**

Creating Communities of Innovation

The Power of Place: A National Strategy for Building America's Communities of Innovation

Presented by
The Association of University Research Parks
October 2, 2008

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Creating Communities of Innovation

J. Michael Bowman
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ASSOCIATION OF UNIVERSITY RESEARCH PARKS

MISSION STATEMENT:

“To promote the development and operations of research parks that foster innovation, commercialization and economic competitiveness in a global economy through collaboration among universities, industry and government.”



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The Power of Place: **A National Strategy for Building America's Communities of Innovation**

- The U.S. must fundamentally change its policies to ensure the future of U.S. innovation
- We call on Congress and the new Administration to adopt the right policies to ensure that the United States remains competitive in the 21st Century



A National Strategy for Building America's Communities of Innovation



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A National Strategy for Building America's Communities of Innovation

Presented By:
Brian Darmody



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Technology Challenges Facing the U.S.

- National governments abroad are building large research parks and science centers, attracting top U.S. researchers and corporate research dollars
- Science and technology are now global commodities
- U.S. private corporate research centers are greatly downsized or no longer exist
- Corporate and federal support for R&D at universities is declining



The Power of Place: The Opportunities

- The physical proximity of researchers (along with patents), is an increasingly important pathway to tech commercialization
- U.S. science is becoming more inter-disciplinary and inter-institutional
- Private industry collaborations with universities and federal labs account for an increasing share of U.S. innovations and tech start-up companies
- State governments are experimenting with technology zones to support research parks and technology incubators, and to increase technology-led economic development clusters





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The Power of Place: Solution

- The U.S. government must have a comprehensive strategy to support its physical Communities of Innovation—research parks, technology incubators, universities and federal labs--focused on:
 - Strengthening existing and developing new Communities of Innovation
 - Increasing the commercialization of U.S. Government R&D to help feed innovation to U. S. Communities of Innovation
 - Increasing domestic corporate research
 - Creating, retaining and importing technology innovation start-ups
 - Aligning Federal incentives and reforms with state technology development zones





Biopolis

The Biomedical Hub of Asia



Human centric
Comfortable
Convenient
Compact
Connected
Speed
Energy
Vibrancy





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Asia's "World Class" Campuses

New Songdo City – South Korea – 60 million square feet



Comparison:

Washington D.C. Total Office Market = 100 million square feet





Examples

113 Fortune 500 Companies Have Their Presence in Suzhou

A Miracle of All Miracles
— Suzhou and Suzhou Industrial Park

BioForesight



Corporate Support Declining

**Where has the Money Gone?
Declining Industrial Support of Academic R&D**
NSF 06-328 | September 2006

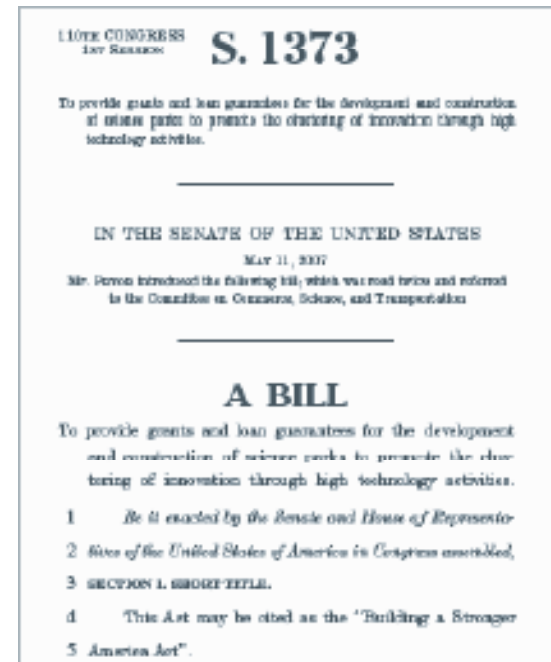
Federal Support Declining

Funding for academic R&D failed to outpace inflation for the last 2 consecutive years, for the first time in the 36-year history of the NSF survey.



Building A Stronger America Act: America's Infrastructure Solution

- Introduced by Senator Pryor [D-AR] and others last year
- It offers for research and science parks:
 - Initial funding for development of plans
 - Loan guarantees for development
 - Support for a focus on international partnerships and further park expansion



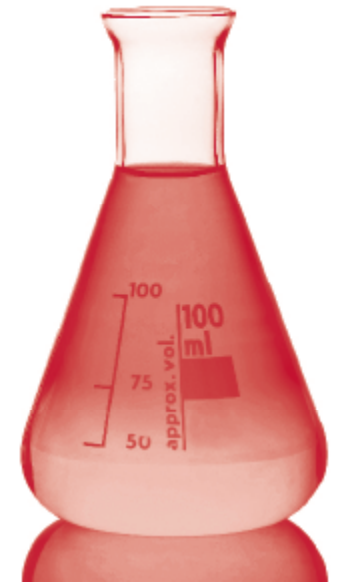
Federal Labs: Communities of Innovation

Federal labs managed by the U.S. Government have not been as central to local technology development as they could be. Why?

- **Federal labs are less flexible in their mission**
- **They have limited resources for tech commercialization**

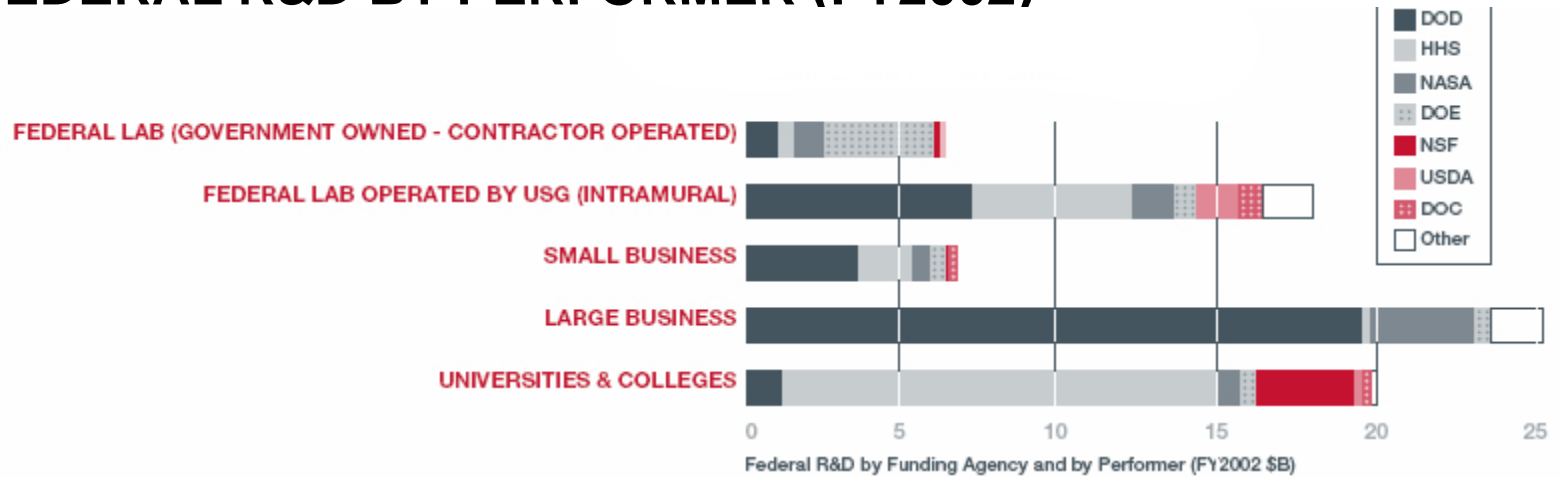
How to Remedy?

- **Create a technology commercialization foundation:**
 - **modeled on best university practices**
 - **that allows venture management involvement**
 - **that encourages entrepreneurial leave for researchers**
 - **that authorizes holding of equity by the foundation**

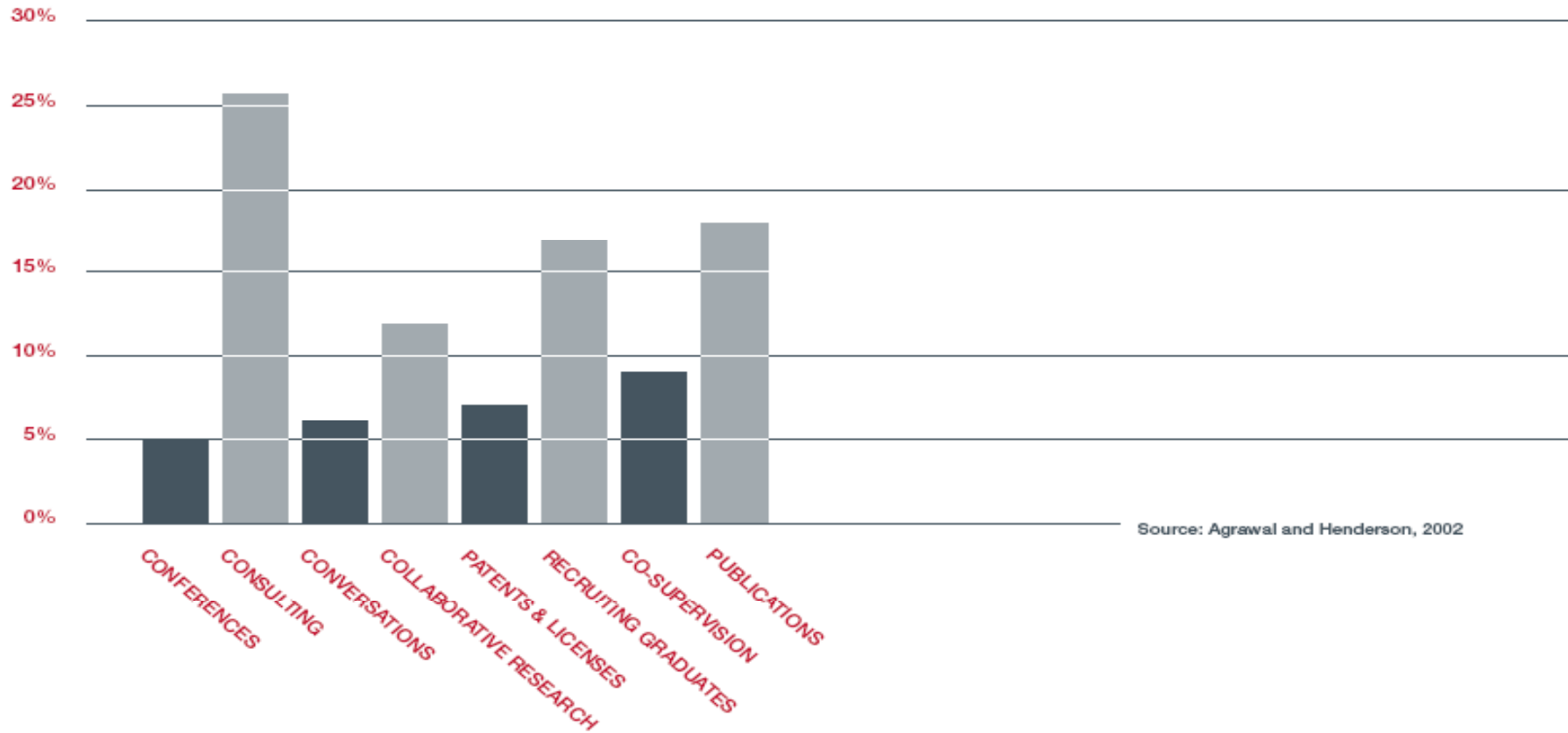


Missed Opportunity: Federal Lab Commercialization

FEDERAL R&D BY PERFORMER (FY2002)



The Power of Innovation Zones: Many Paths to Tech Transfer



*Dr. SEAN SAFFORD, NSF WORKSHOP, 12/3/07



POLICY RECOMMENDATIONS: American Innovation Zones

- **Establish American Innovation Zones for national innovation assets, including:**
 - research and science parks
 - technology incubators
 - universities
 - federal laboratories and adjacent properties
- **Provide regulatory reforms and economic incentives for their accelerated development including *Building a Stronger America Act***
- **The American Innovation Zones should include:**
 - **An enhanced federal corporate R&D tax credit**
 - **Reforms in IRS regulations affecting tax-exempt facilities to encourage more corporate-sponsored research and development in American Innovation Zones**



POLICY RECOMMENDATIONS: American Innovation Zones

- A national research center program with required state matching grants to focus on major national issues including:
 - Energy Research
 - Food Safety
 - Homeland Security
 - Global Climate Change
- Incentives for creating *green* Communities of Innovation: supporting mixed used and residential 'smart growth' development strategies
- Federal lab construction and leasing preferences in Innovation Zones
- Encouragement of SBIR/STTR grants to companies located in the Zones
- Expansion of Enhanced Use Lease [EUL] authority to all federal agencies to increase Innovation Zones adjacent to federal laboratories



Fully Fund the America COMPETES Act:

- **The U.S. Congress took a great step forward in passing the America COMPETES Act in 2007**
- **The Act authorizes:**
 - **a substantial federal investment in high risk, high reward research**
 - **improved funding to many of the U.S. science agencies**
 - **enhanced support for science and math education**



Rewarding Communities of Innovation: Expand the R&D Tax Credit

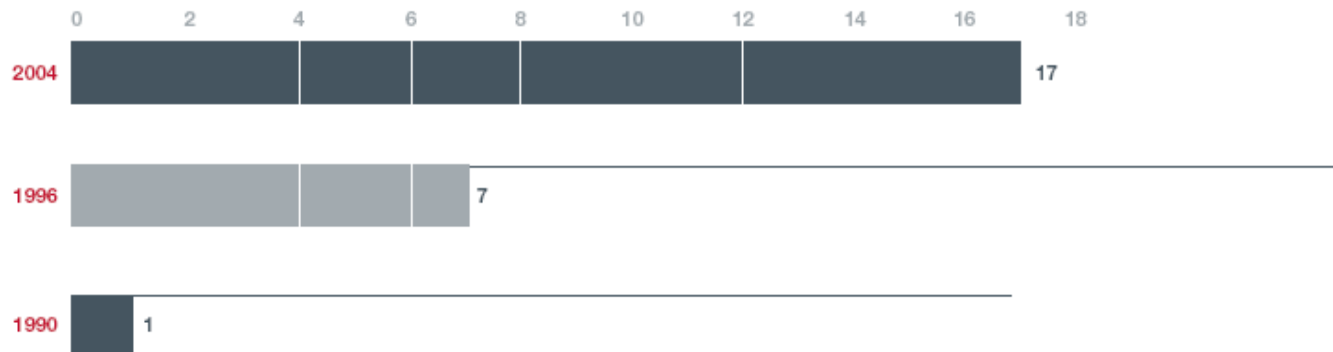
- **Extending a permanent R&D tax credit, with an expanded benefit available in American Innovation Zones, is a critical component of any effort to maintain the U.S. as a center for innovative research**
- **Its absence is a competitive disadvantage for any effort to attract the best available talent and to spur research investment by the private sector**
- **In 1990, the U.S. ranked first in tax generosity for R&D among the 30 leading industrial nations that made up the Organization of Economic Cooperation and Development (OECD). By 2004, the U.S. had fallen to 17th.**



U.S. RANK IN TAX GENEROSITY OF R&D

Organization of Economic Cooperation and Development Industrial Nations (OECD)

1990-2004



OECD data including Jacek Warda, op. cit. from Robert Atkinson testimony before US Committee on Science and Technology, US Congress Oct. 4, 2007



Importing Innovation, Reforming Immigration Laws

The United States must support programs to encourage the move of technology companies and knowledge workers into the U.S. through HB-1 visas reforms.





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**Better Science;
Better Innovation;
A Better World**



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Thank You

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A Call to Action

For the new 2009 Presidential Administration and Congress, we call for Congress to:

- **Establish American Zones of Innovation**
- **Provide Regulatory Clarity**
- **Fully fund the America COMPETES Act**





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