

# The Small Business Technology Transfer Program



The National Academies  
Washington, DC  
May 1, 2015

Jacques Gansler, Ph.D., NAE

# Welcome to the National Academies



**National Academy of Sciences (NAS)**



**National Academy of Engineering (NAE)**



**Institute of Medicine (IOM)**

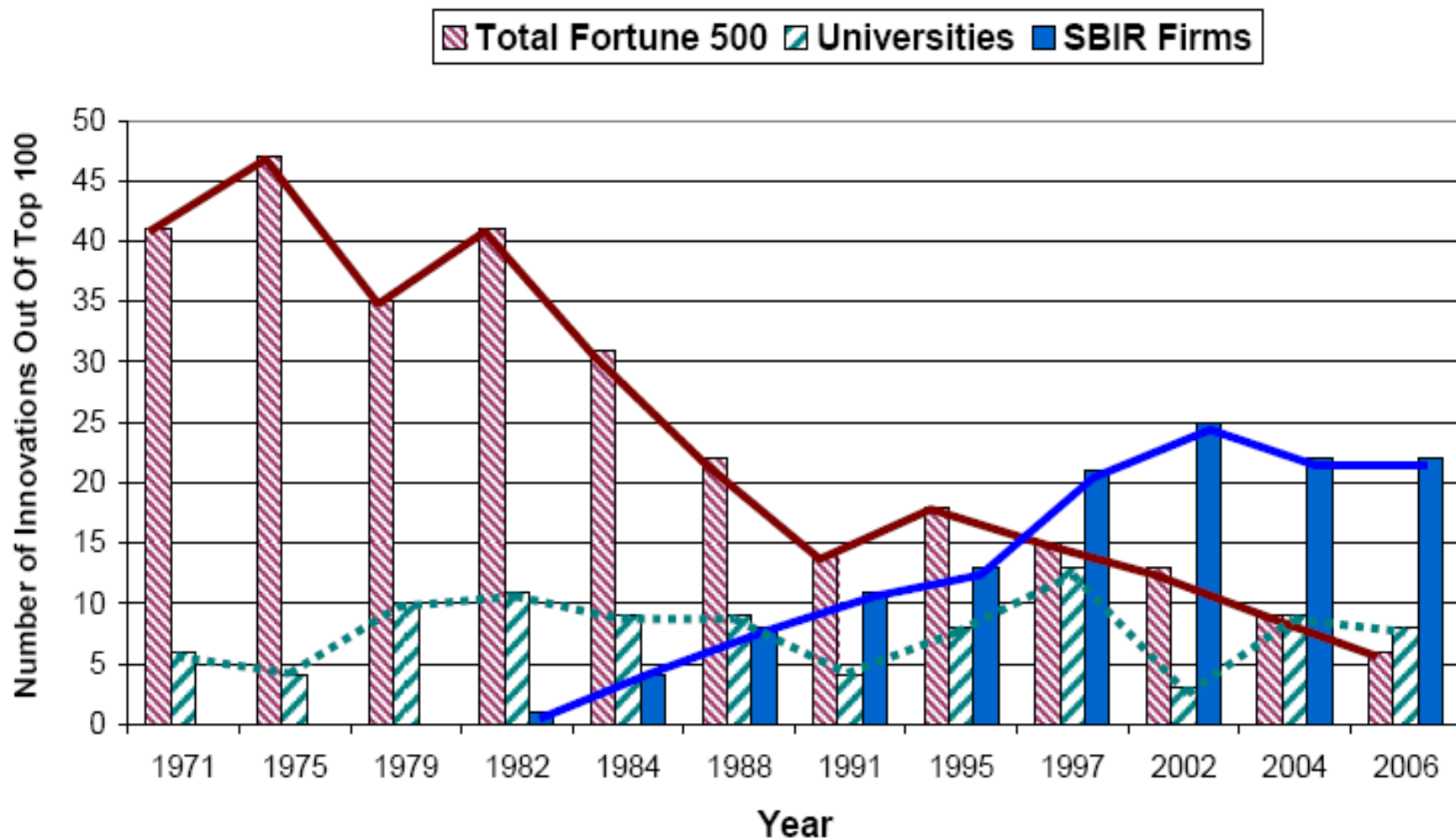


**National Research Council (NRC)**

# Small Companies Drive High-Technology Innovation

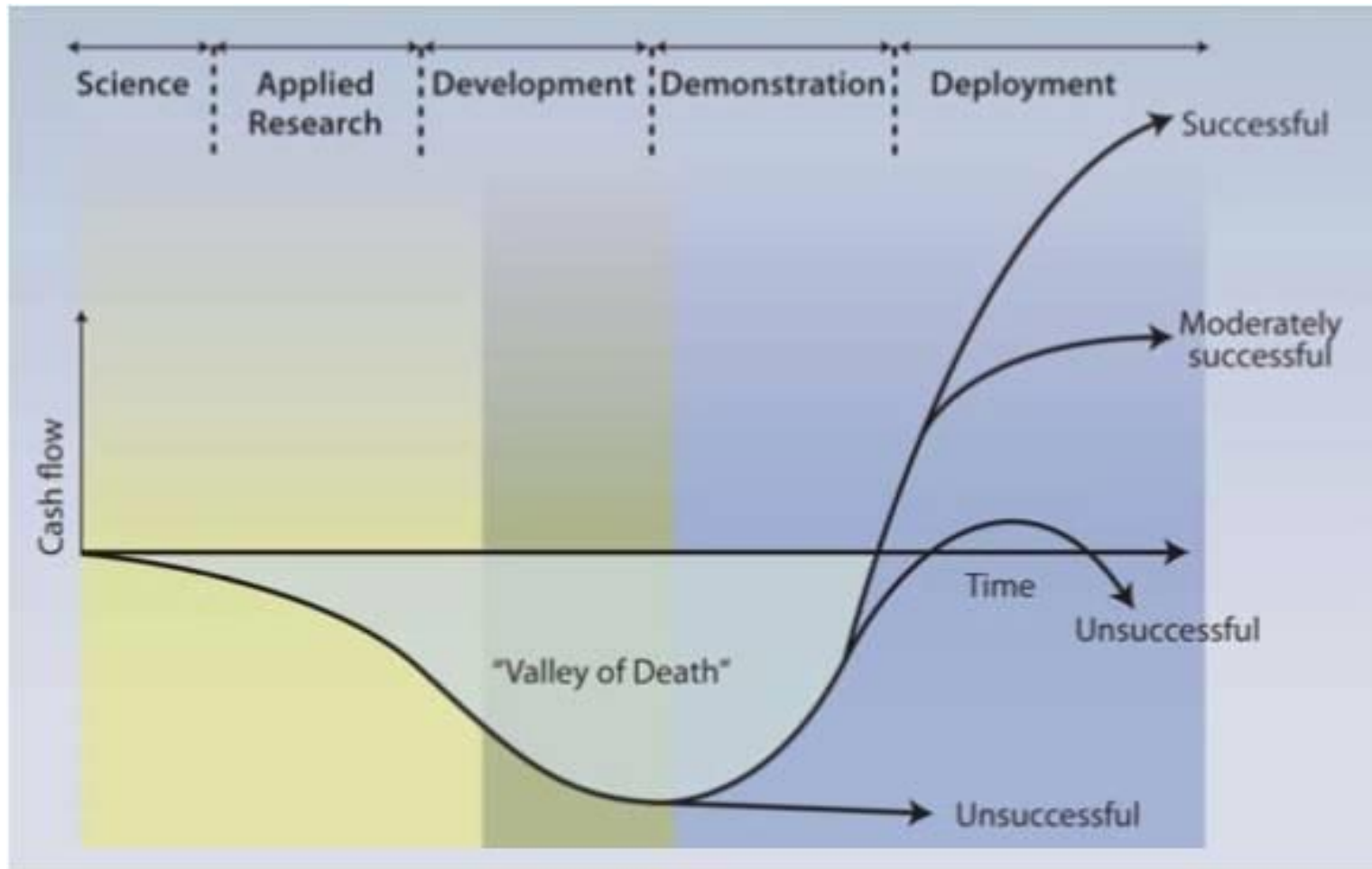
- Small Companies are Key Players in Bringing New Technologies to Market (Audretsch & Acs).
  - Large returns to national economic and strategic capabilities can result from relatively small national investments.
  - Innovations—with the right policy support—can become new products and services for the market and provide support for government missions.

# Where Do Key Innovations Come From?

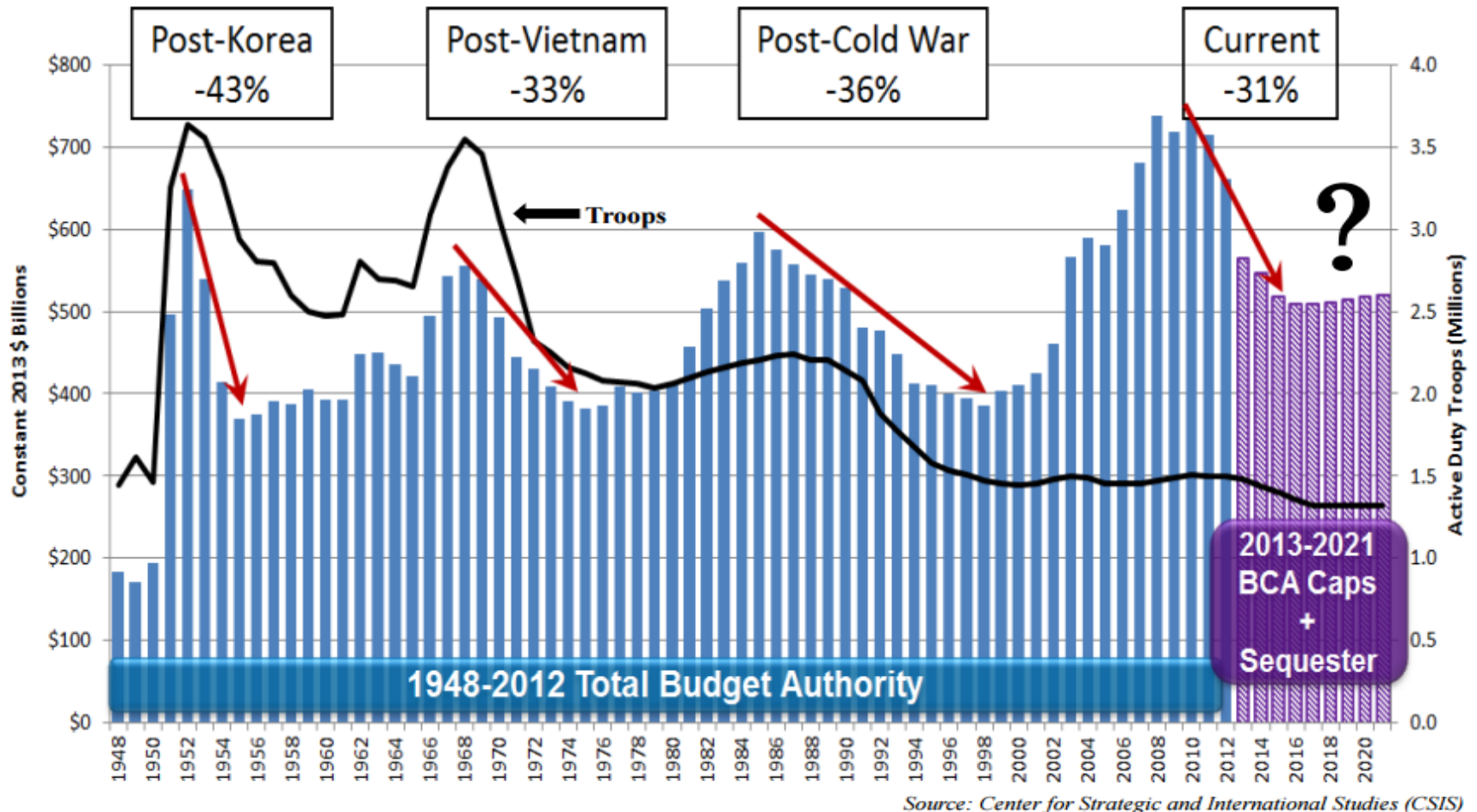


Source: Block and Keller, Where do Innovations Come From, ITIF July 2008.

# The Valley of Death: A Major Challenge for Innovators

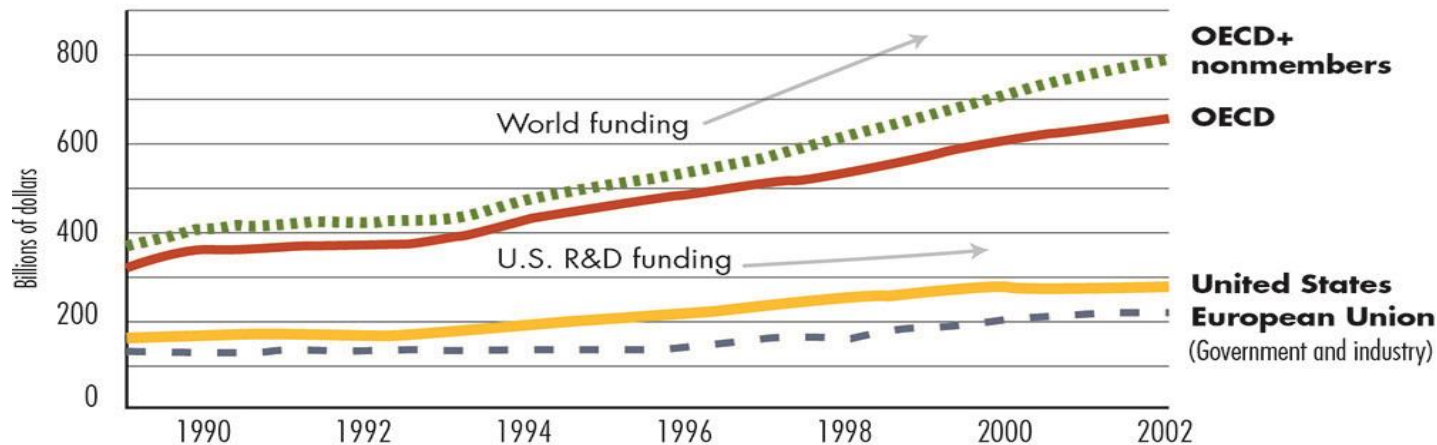
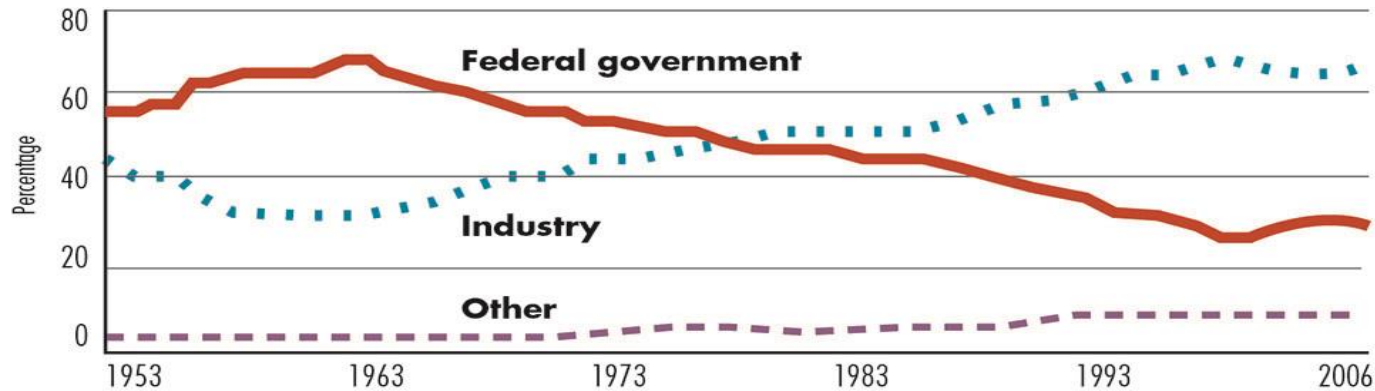


# Shrinking & Uncertain Defense Budgets & Declining Force Structures



# Research Funding Trends\*

Critical for Economic Competitiveness & Security  
Technological Leadership



Top figure, David Mowery, "Military R&D and Innovation" (University of California Press, 2007); bottom figure: National Science Foundation, "Science and Engineering Indicators 2006," and OECD, "Main Science and Technology Indicators" database, November 2004)

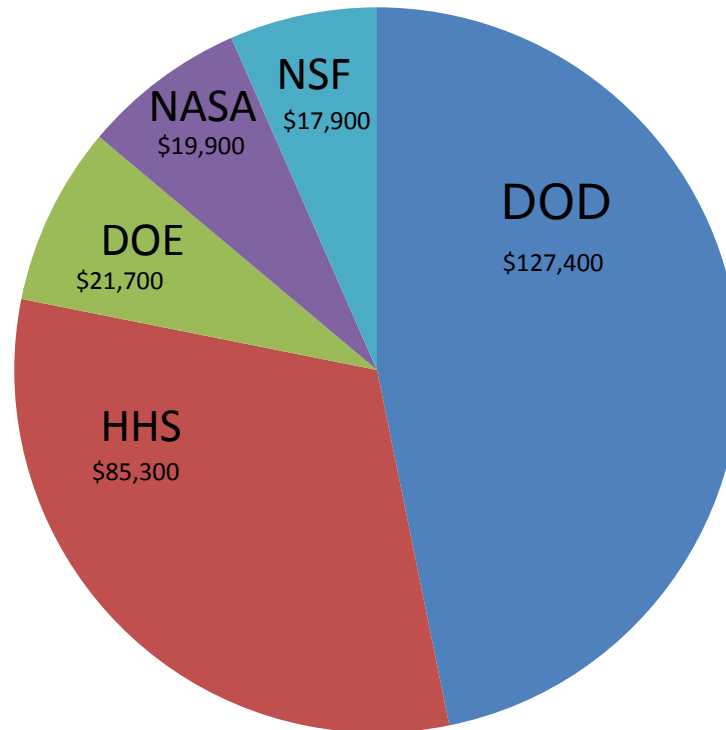


# The STTR Program

- Helps bridge the gap between performance of basic science and commercialization of resulting innovations.
- Expands funding opportunities in the federal innovation research and development arena.
  - Includes joint venture opportunities for small businesses and nonprofit research institutions.
  - Requires the small business to formally collaborate with a research institution in Phase I and Phase II.



# STTR Budget Breakdown

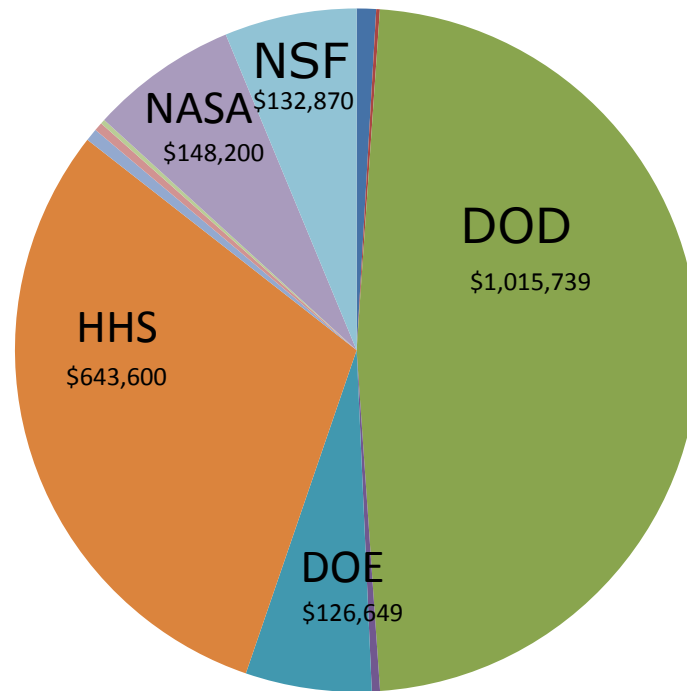


Total for 2012  
\$272 Million in  
2012

Fiscal Year 2012 STTR Agency Obligations Summary (dollars in thousands)

Source: <http://www.sbir.gov/awards/> , accessed April 23, 2015

# SBIR remains the single largest innovation program for small businesses.



Total: \$2.12  
billion dollars  
in 2012

Fiscal Year 2012 SBIR Agency Obligations Summary (dollars in thousands)  
SOURCE: <http://www.sbir.gov>, accessed April 23, 2015



After nearly 20 years of operation,  
The Congress asked the National Academies:

How well is SBIR Working Overall?

# The Committee's Round One Assessment of SBIR (2003-2008)

- Improved the public's understanding of the challenges of Early-Stage Finance
- Documented the diversity and flexibility of the SBIR programs
- Assessed effectiveness of agency SBIR programs
- Highlighted benefits of SBIR to agency missions and to the U.S. innovation system
- The Committee did not assess the STTR program in Round One

# Our Study had a Major Impact on the 2011 SBIR Reauthorization

- Many contributions to the 2011 Reauthorization of the SBIR Program including
  - **Extension of the program:** until 2017
  - **Increase in award size:** \$150,000 for Phase I and \$1 million for Phase II.
  - **Increase in set-aside:** From 2.5% to 3.2%
  - **Enhanced Agency Flexibility:** Can use Phase I from another agency for Phase II award
  - **Expanded Management Resources:** Up to 3% of program funds
  - **Commercialization:** Incentives to use SBIR technologies in agency acquisition programs
  - **Assessment:** Additional NRC reviews of SBIR & STTR

# Ongoing Now: The SBIR/STTR Assessment (Round 2)

This Second Round includes  
an assessment of STTR

# STTR: Issues for the Second Round Assessment:

- How well is STTR addressing its goals to:
  - Stimulate technological innovation
  - Foster technology transfer through cooperative R&D between small businesses and research institutions
  - Increase private sector commercialization of innovations derived from federal R&D
- How can STTR work better?



# Today's Workshop on the STTR Program will Explore:

- How DOD, NIH, DOE, NSF and NASA run their STTR programs.
  - How is it operationally different from SBIR?
  - What do we know about program outcomes?
- How innovative small businesses make use of STTR.
- Collaborations between small business and research institutions, including labs
  - Including experiences in establishing IP agreements.
- The STTR advantage for universities and other eligible research organizations.
- Ways to improve STTR.

We welcome your  
Participation

And look forward to your  
continued cooperation



# Thank You

**The Honorable Jacques S. Gansler**

Professor and Roger C. Lipitz Chair in

Public Policy and Private Enterprise

Director, Center for Public Policy and Private Enterprise

University of Maryland

301-405-4794

[jgansler@umd.edu](mailto:jgansler@umd.edu)