

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)



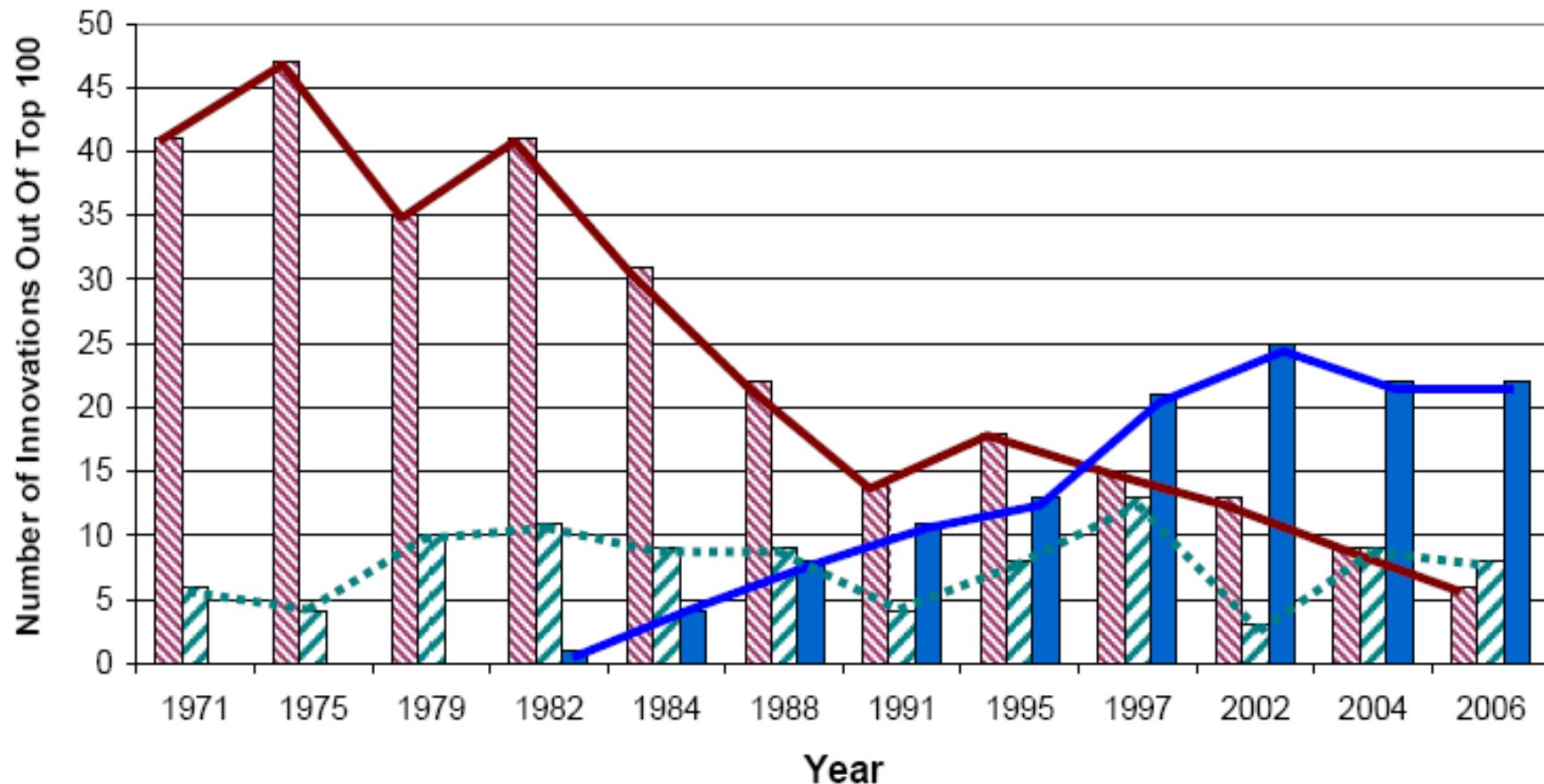
National Research Council (NRC)

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.

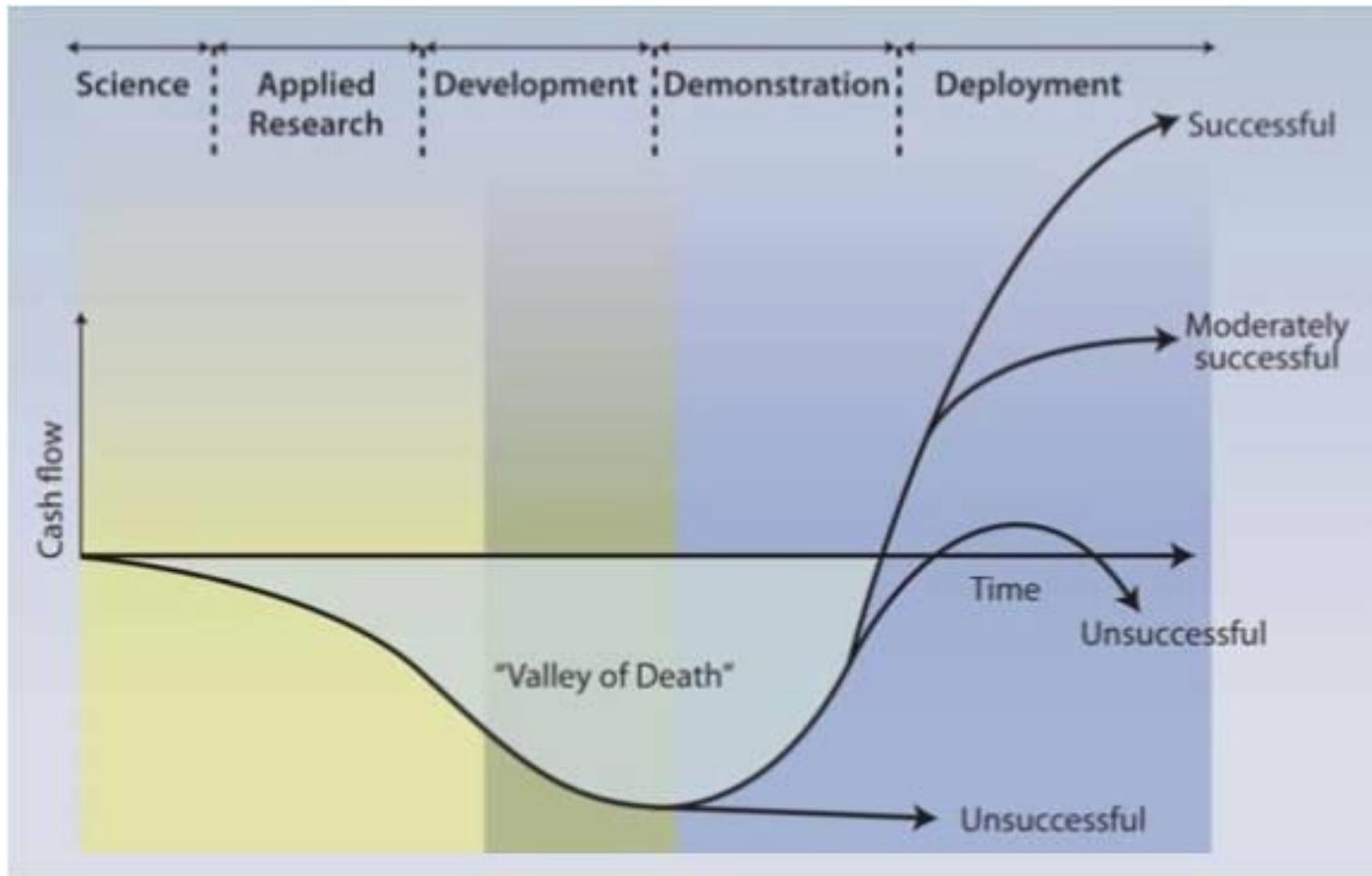
Where Do Key Innovations Come From?

■ Total Fortune 500 □ Universities ■ SBIR Firms

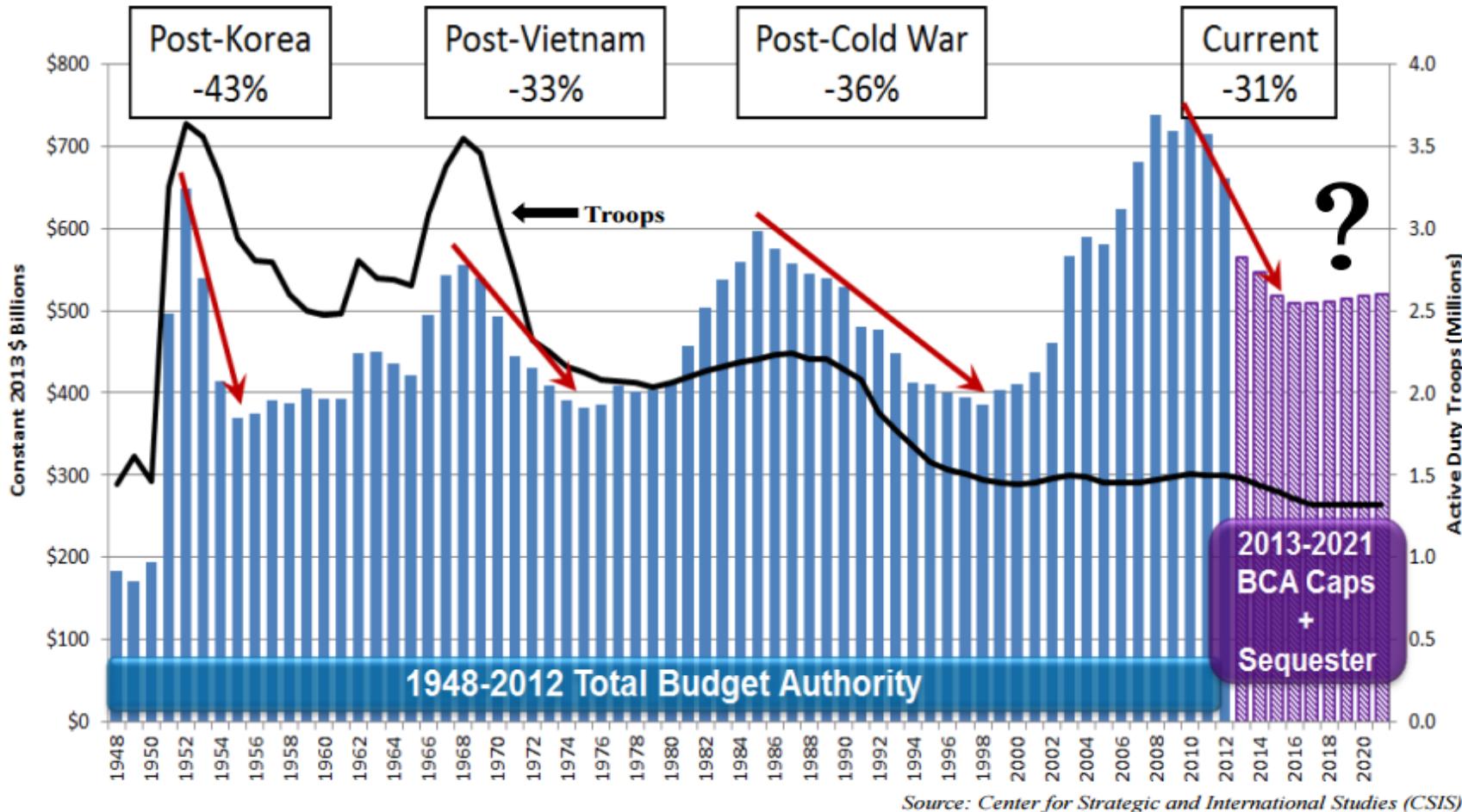


Source: Block and Keller, Where do Innovations Come From, ITIF July 2008.

The Valley of Death: A Major Challenge for Innovators

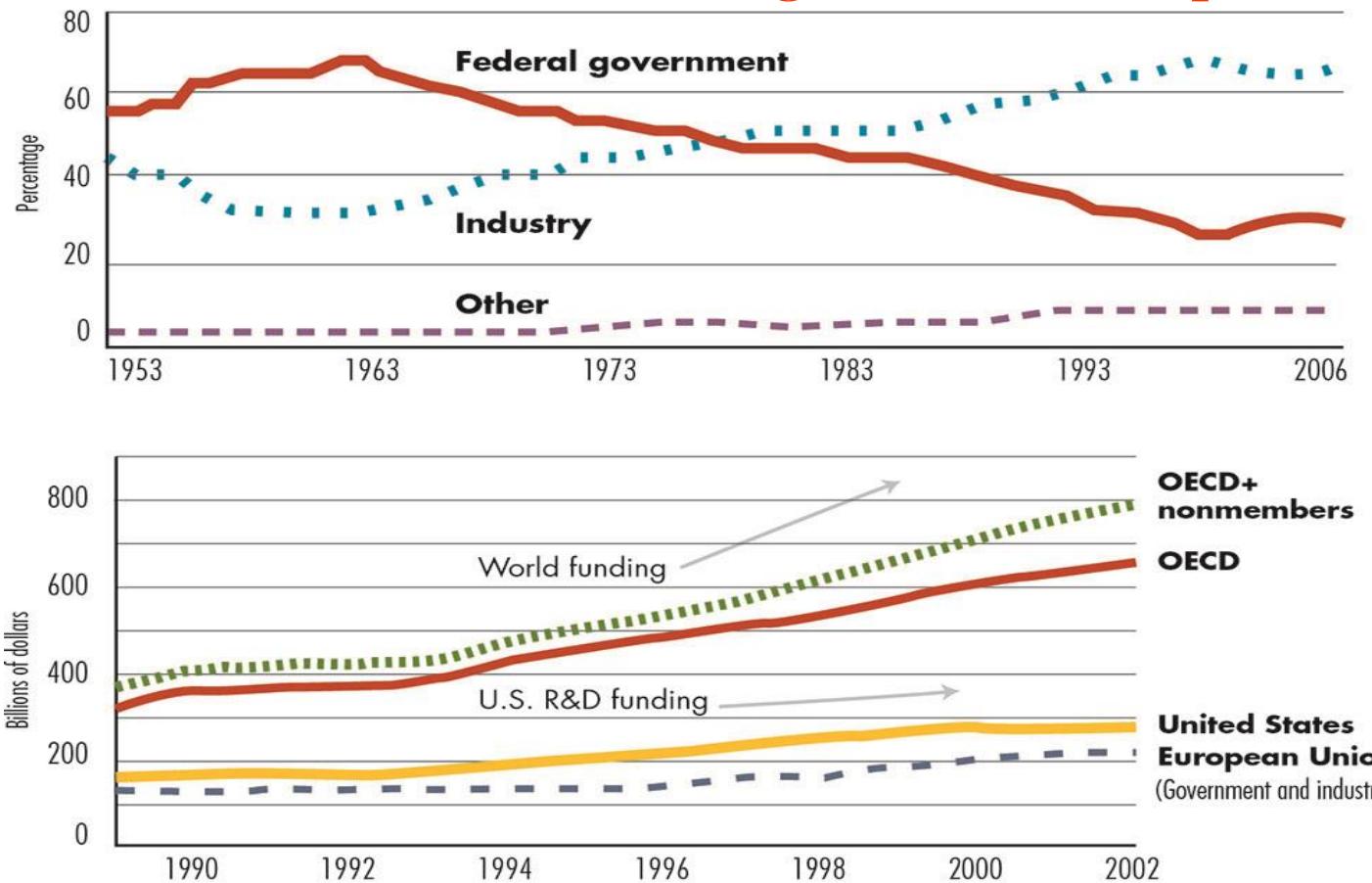


Shrinking & Uncertain Defense Budgets & Declining Force Structures



Research Funding Trends*

Critical for Economic Competitiveness & Security Technological Leadership

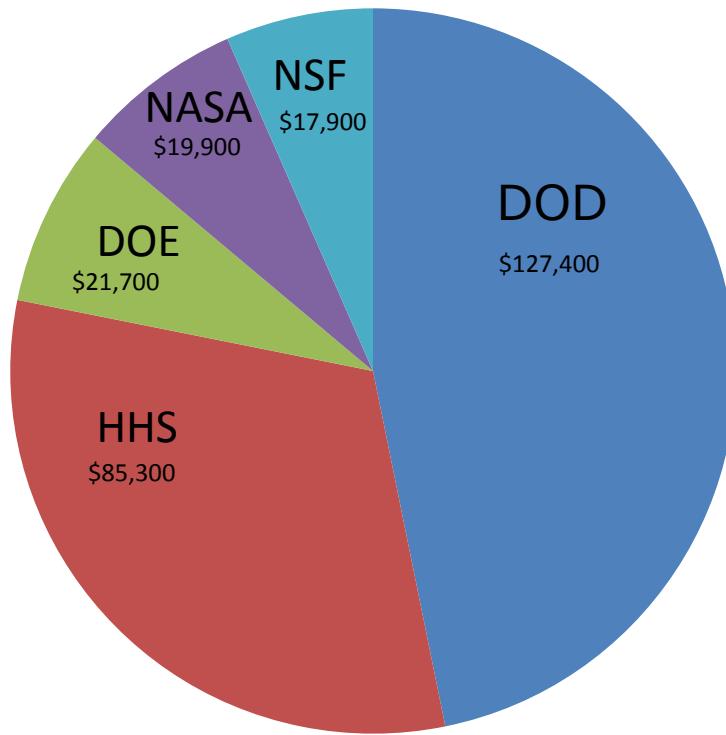


Top figure, David Mowery, "Military R&D and Innovation" (University of California Press, 2007); bottom figure: National Science Foundation, "Science and Engineering Indicators 2006," and OECD, "Main Science and Technology Indicators" database, November 2004)

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.

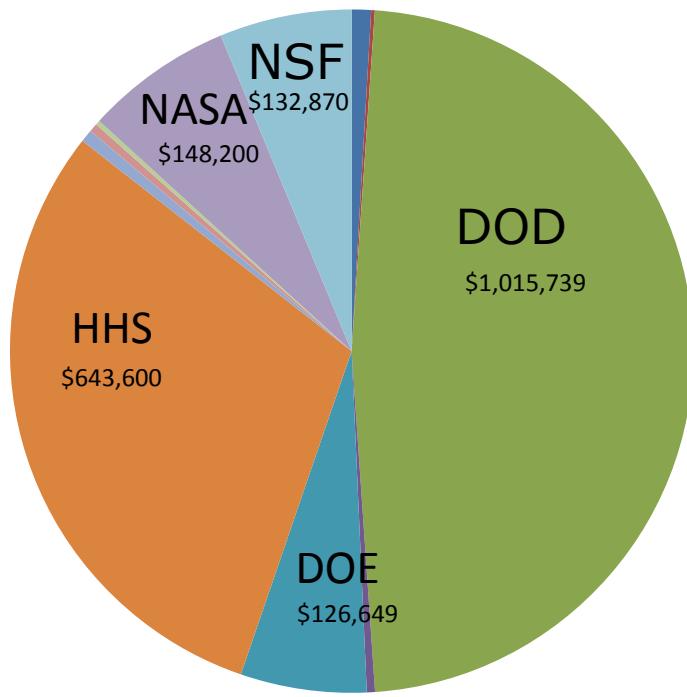
STTR Budget Breakdown



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