SBA Office of Investment & Innovation
SBIR-STTR Presentation

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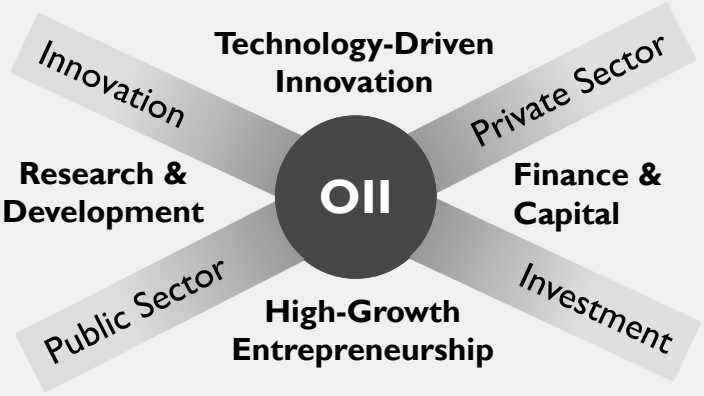
Elevator Pitch

Small Business Administration
Office of Investment and Innovation

SBA's Office of Investment and Innovation (OII) leads programs that provide the high-growth small business community with access to two things: financial capital and R&D funds to develop commercially viable innovations.

Our work is underpinned by public-private partnerships that operate on or along a very dynamic and economically important intersection.



Small Business Investment Company (SBIC) Program delivers access to financial capital

$4 billion authorization per year | $23.78 billion of assets under management | 299 active SBICs

Small Business Innovation Research (SBIR) and Small Technology Transfer Research (STTR) programs support the R&D + financing of cutting-edge technologies

~$2.5 billion annual set aside | ~145,000 awards granted | ~10 patents per day

Innovation - Support the American high growth entrepreneurial ecosystem

$4m Accelerator Program | Start-Up America | Demo Days | Crowdfunding

SBA

Mission of the SBIR/STTR Program

- To support scientific excellence and technological innovation through the investment of Federal research funds in critical American priorities to build a strong national economy… one small business at a time.

Goals of the SBIR/STTR Program

- Meet **Federal research and development needs**
- Increase private-sector **commercialization** of innovations derived from Federal research and development funding
- Stimulate technological **innovation**
- Foster and encourage participation in innovation and entrepreneurship by **socially and economically disadvantaged persons**

History of the Program

- Created by Roland Tibbetts at the National Science Foundation and signed as a Federal wide program in 1982 by Ronald Reagan
- SBIR programs have awarded over $40 billion to research-intensive American small businesses
- The 450,000 engineers and scientists involved are one of the largest STEM talent concentrations in the world
- 11% of awardees have attracted another $65 billion plus of venture capital

The SBIR & STTR Programs

Small Business Innovation Research (SBIR)

- A set-aside program for small business to engage in Federal R&D – with potential for commercialization
- 2.9% of the extramural research budget (FY 2015 ~ $2.0 Billion in summation) for all agencies with a budget greater than $100M per year. Growing to 3.2% by 2017.

Small Business Technology Transfer (STTR)

- A sister set-aside program to facilitate cooperative R&D between small business concerns and U.S. research institutions – with potential for commercialization.
- 0.35% of the extramural research budget (>$250 million) for all agencies with a budget greater than $1B per year. Growing to .4% by 2017.

Milestone-Driven Award Process

Phase I | Feasibility Study or Prototype
- ~$150 thousand and 6 months

Phase II | Full Research and Development Effort
- ~$1 million and 24 months

Phase III | Commercialization Effort
- Private and Non-SBIR Allocated financing

Participating Federal Agencies

SBIR/STTR Success Stories

Qualcomm	Symantec
iRobot	Genzyme
Nimble Systems	NanoMech
Lift Labs	Adaptec
Ecovative Design	Children's Progress Inc
JENTEK Sensors	SQUID

SBIR & STTR in Brief

Quick Stats

What We Do @ 15,000 FT

FY 2012

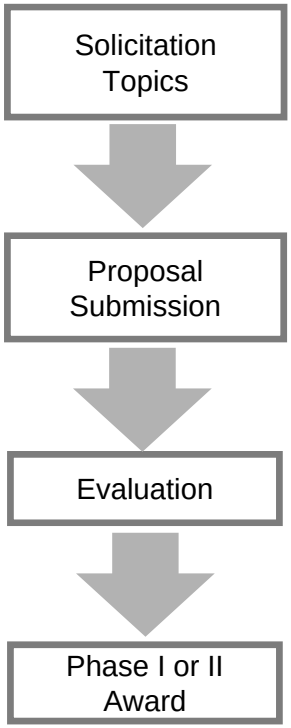
SBIR

- 5509 Total Awards | 54% of $ to 10 States
- Phase I Awards | 64% of Awards | 24.2% of Funds | Average Size $151,000
- Phase II Awards | 36% of Awards | 75.8% of Funds | Average Size $718,000
- 23% to women-owned, minority-owned or HUBZone-located small biz
- 2.5% pre-2011 | 3.2% by 2017 | Floor NOT Cap

STTR

- 660 Total Awards | 78% DOD and HHS
- Phase I Awards | 75% of Awards | 42% of Funds | Average Size $144,000
- Phase II Awards | 25% of Awards | 58% of Funds | Average Size $582,000
- 22% to women-owned, minority-owned or HUBZone-located small biz
- 0.3% pre-2011 | 0.6% by 2017 | Floor NOT Cap

Typical Application Process



SBIR & STTR in Brief

Eligibility Criterion

- Organized as for-profit U.S. business
- Small: 500 or fewer employees, including affiliates
- Work must be done in the U.S. (with few exceptions)
- Individual Ownership:
  - Greater than 50% U.S.- owned by individuals and independently operated OR
  - Greater than 50% owned and controlled by other business concern/s that is/are greater than 50% owned and controlled by one or more individuals OR
  - Be a concern which is more than 50% owned by multiple venture capital operating companies, hedge funds, private equity firms, or any combination of these.

SBIR & STTR in Brief

Eligibility Criterion

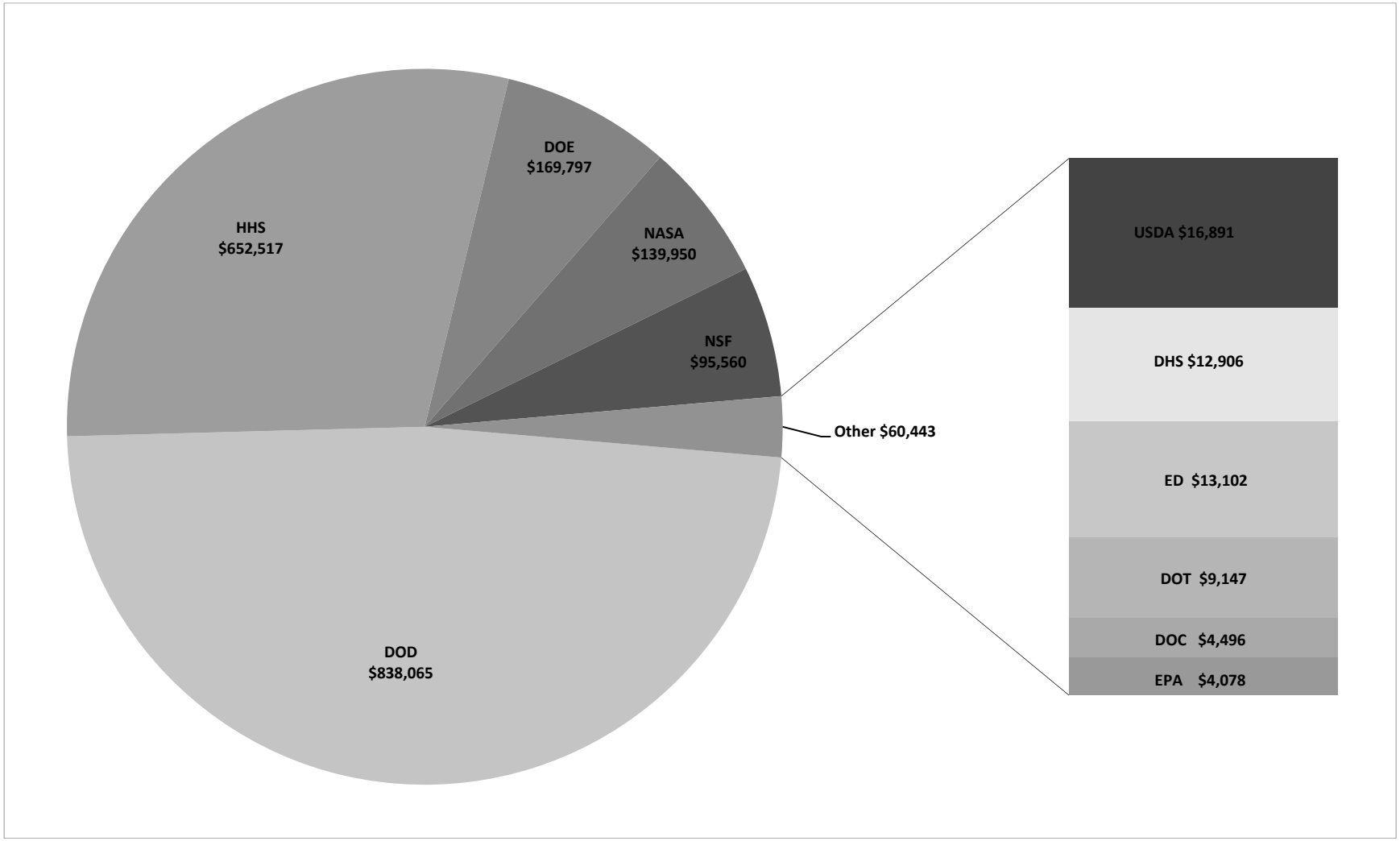
- Eligibility is determined at **time of award**
- PD/PI is **not** required to have a Ph.D./M.D.
- Generally the PD/PI is required to have some expertise to oversee project scientifically and technically
- Applications **may be** submitted to **different agencies** for similar work
- Awards may not be accepted from different agencies **for duplicative projects**

SBIR & STTR in Brief

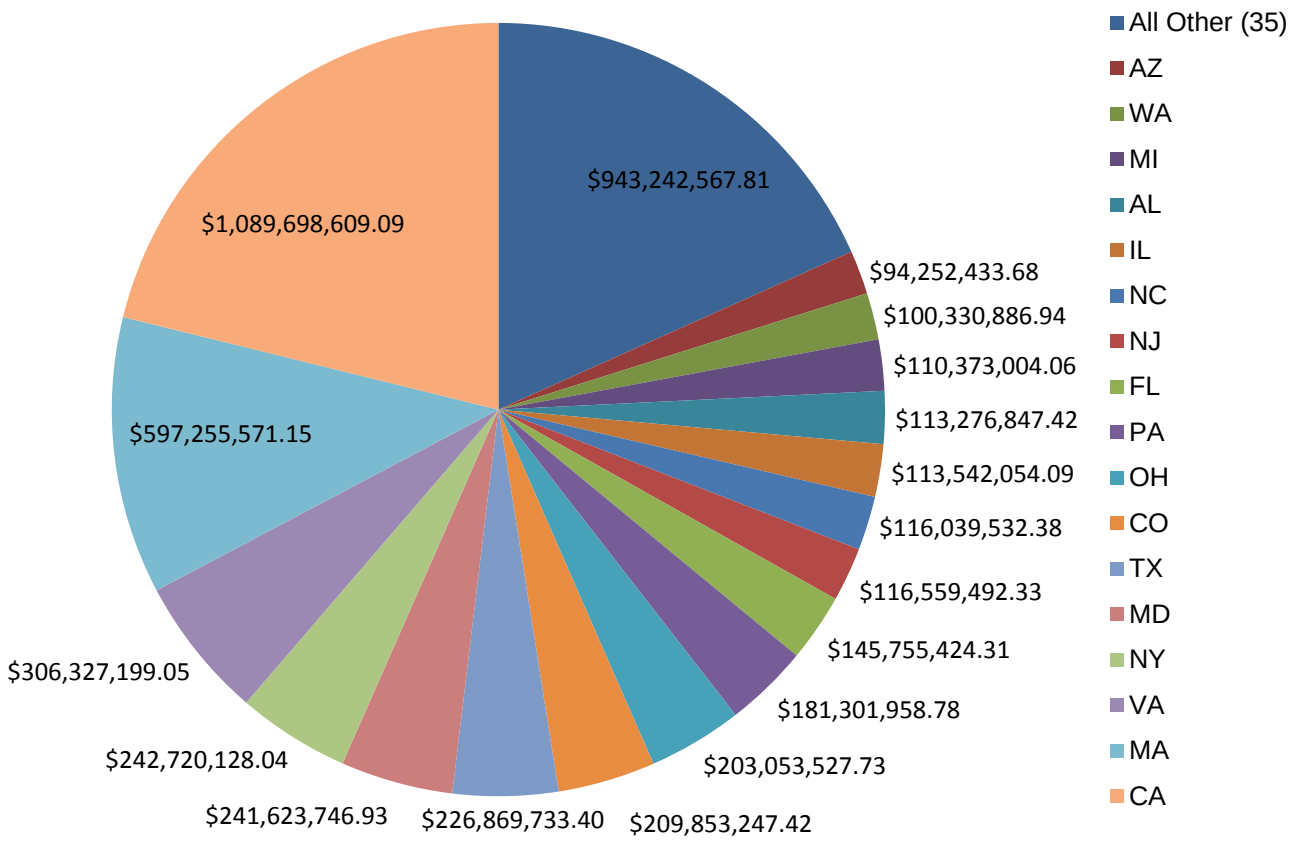
Eligibility Criterion

- **Registrations are required!!!**
  - DUNS Number (Company)
  - System for Award Management (SAM)
  - Grants.gov (Company)
  - RA Commons (Company and all PD/PIs)
  - SBA Company Registry at SBIR.gov

FY 2012 Distribution of Total SBIR Award Dollars ($ thousands)



Snapshot Across the US for the Past 4 Fiscal Years



Top total award dollars went primarily to 10 states:
CA, MA, VA, NY, MD, CO, PA, TX, OH and FL

Federal & State Technology (FAST) Partnership Program

- FAST provides funding to a build a community whose mission is to provide SBIR and STTR awareness and support to science and technology-driven small businesses
- About $2 million annual funding, ~$100,000 per applicant. Only one applicant allowed per state and must be supported by the Governor
- Particular emphasis on helping socially and economically disadvantaged firms compete in the SBA's SBIR and STTR programs

Federal & State Technology (FAST) Partnership Program 2014 Winners

State	Entity	Contact POC	Email
Alabama	Economic Development Partnership of Alabama Foundation, Inc.	Angela Wier	awier@edpa.org
Arizona	Commerce Authority, Arizona	Brian Sherman	brians@azcommerce.com
Mississippi	Innovate Mississippi	James Anthony Jeff	tjeff@innovate.ms
California	The Regents of the University of California	Diane Howerton	dhowerton@ucmerced.edu
Alaska	University of Alaska Anchorage	Tana Myrstol	tjmyrstol@uaa.alaska.edu
DC	DC Department of Small and Local Business Development	Ted Archer	ted.archer@dc.gov
Wyoming	University of Wyoming	Greg Jordan	gregj@uwyo.edu
Wisconsin	Board of Regents of the UW-System	Cheryl Vickroy	cheryl.vickroy@uwex.edu
Arkansas	Board of Trustees of the University of Arkansas	Janet Roderick	jmroderick@ualr.edu
North Dakota	University of North Dakota	Bruce Gjovig	bruce@innovators.net
Tennessee	Tennessee Technology Development Corp d/b/a Launch Tennessee	Jim Stefansic	jim@launchtn.org
New York	The Research Foundation for the State University of New York	James King	Jim.king@nyssbdc.org
Kansas	Wichita State University	Karen Davis	proposals@wichita.edu
Nebraska	Board of Regents, Univ. of NE dba Univ. of NE at Omaha	Mary Laura Farnham	unosponpro@unomaha.edu
Idaho	Boise State University	Katie Sewell	ksewell@boisestate.edu
Connecticut	Connecticut Innovations Incorporated	Deborah Santy	deb.santy@ctinnovations.com
Virginia	Center for Innovative Technology	Pat Inman	pat.inman@cit.org
Oregon	Oregon Built Environment & Sustainable Technologies Center	David Kenney	david.kenney@oregonbest.org
Minnesota	Metropolitan Economic Development Association	Yvonne Cheung Ho	yho@meda.net
Illinois	Board of Trustees of the University of Illinois	Kapila Viges	viges@uillinois.edu
Puerto Rico	Puerto Rico Trade and Export Company (PR Trade)	Isabel Fernandez	isabel.fernandez@cce.pr.gov
Louisiana	Louisiana State University and A&M College	Roy Keller	rkeller@lsu.edu

SBIR Road Tour for FY 2015

- 4 Regions where the Federal Program Mangers come to you
  - South East - March 24th to 27th - KY, TN, GA, SC
  - South Central – April 27 to 1 May - MS, MO, LA, KS, OK
  - North Central – July 13th to 17th - IN, IL, IA, NE, SD
  - Pacific Northwest - August 17th to 21st - WA, OR, ID, & MT
- Enable outreach and dialogue with key constituents in those regions innovation ecosystems
- Solicit feedback and recommendations on how to make the SBIR/STTR program better
- Open for support and participation from local stake holders - www.sbirroadtour.com

Case Studies – Just Scratching The Surface

FROM A COMPANY PERSPECTIVE

IDA-STPI studied NSF's role in 3D Printing (along with leadership from NASA, DOD, etc...) shows that some of most crucial parts of the technology was financed in its earliest stages as the result of various critical funding via the SBIR/STTR program. Z-Corporation which emanated out of **MIT** labs and was recently acquired by 3D Systems, was one of the first 3D Printing companies to enter the market dating back to 1994 and they too received initial financing from NSF through various research financing opportunities including the SBIR/STTR program.

A 2012 Tibbetts Award Winning company emanating from upstate NY, which was founded by two undergraduate students during a Product Design Innovation class at **Rensselaer Polytechnic Institute**, who came up with the idea to use mushrooms as the binding material for composite fabrication of biodegradable materials which in turn offer a promising solution to potentially eliminate petrol-based composites. They received some of their earliest funding via EPA and NSF SBIR Grants.

FROM A UNIVERSITY PERSPECTIVE

Alcomed Inc. which derives its technology from **University of Kentucky** research has a promising antidote solution towards developing intranasal naloxone for opioid overdosing. This approach would markedly reduce the risks of contracting hepatitis or HIV by EMS first responders. Phase 1: $239,908.00 & Phase 2: $1,219,884.00 both from HHS-NIH

The State of Kentucky is doubling down via a public-private partnership model, The Kentucky Science and Technology Corporation. Additionally, the Kentucky SBIR/STTR Matching Funds Program is funded by the Cabinet for Economic Development and provides matching funds of up to $150,000 for Phase I and up to $500,000 for Phase II. These funds are used for new and additional work tasks that are complementary to existing Federal SBIR/STTR Awards.

Pertinent Resources for Stakeholders

- SBIR Website: www.sbir.gov
- Webinar Series by SBA & NCET2 on SBIR Program: http://center.ncet2.org/index.php?option=com_content&view=article&id=690&Itemid=87
- SBIR Road Tour Website: http://www.sbirroadtour.com/

Glossary of Terminology to Know

- Non-dilutive
- Seed
- Research & Development (R&D)
- Intellectual Property Rights
  - (Patents, Trade Secrets, Trademarks, & Copyrights)
- Crowdfunding
- Venture Capital
- Early Stage Innovation Financing
- Phase 0 - Ideation
- Phase I - Proof of Concept/Prototype
- Phase II - Scale Up Development
- Phase III - Commercialization & Going Global

Glossary of Terminology to Know

- High Risk & High Reward
- SBIR/STTR Grants
- SBIR/STTR Contracts
- Regional Innovation Clusters
- Technology Transfer & Licensing
- University Research Partners (STTR related)