

SBIR • STTR

America's Seed Fund

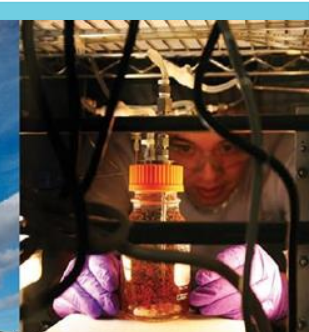
PNDC Homeland
Security Symposium
June 8, 2017



Leon Wolf

SBIR/STTR Support Center Coordinator,
Oregon BEST

with appreciation to John Pucci
DHS SBIR Program Director
Science and Technology Directorate



What are the SBIR/STTR Programs?

SBIR

Small Business Innovation Research

STTR

Small Business Technology Transfer

\$2.8 billion federal program that funds development and commercialization of innovative technologies

→ *Learn more at www.sbir.gov*

Participating Federal Agencies

- **Department of Defense** ←
- National Institutes of Health
- Department of Energy
- National Science Foundation
- NASA
- USDA
- **DHS** ←
- DOT, NOAA, NIST,
Dept of Education
and EPA



Two DHS SBIR Programs

- **Science & Technology Directorate (S&T)**
- **Domestic Nuclear Detection Office (DNDO)**



**Homeland
Security**

Science and Technology

S&T's Visionary Goals



SCREENING AT SPEED



TRUSTED CYBER FUTURE



ENABLE THE DECISION MAKER



RESPONDER OF THE FUTURE



RESILIENT COMMUNITIES:



**Homeland
Security**

Science and Technology

S&T's FY17 SBIR Topics



Enhanced Agent Situational Awareness in Dismounted, Low Light/Adverse Conditions



Do Not Spoof Services for Modern Telephony



Identity Verification & Validation for Mobile Networks Authentication Enhancement



Blockchain Applications for Homeland Security Missions



Wearable Chemical Sensor Badge



Over-the-air Authentication Technology for Messaging via Emergency Alerts



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Science and Technology

Domestic Nuclear Detection Office (DNDO)

Mission

Prevent nuclear terrorism by continuously improving capabilities to deter, detect, respond to, and attribute attacks, in coordination with domestic and international partners.



Cost effective equipment



Enhanced wide area search



Monitoring along challenging GNDA pathways



Detection of special nuclear material

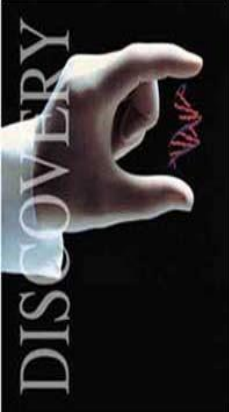
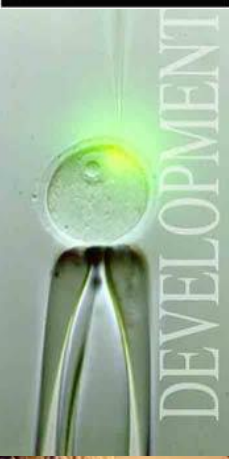
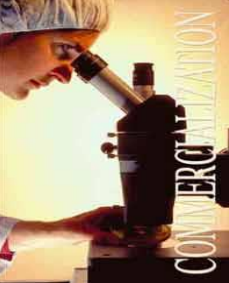


Predictive capability



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DHS SBIR – A Three-Phase Program

	<p>Phase I: Scientific and Technical Feasibility/ Proof of Concept</p>	<ul style="list-style-type: none"> ▪ Funded with SBIR funds, 33% may be outsourced ▪ Not to exceed 6 months in duration ▪ Award sizes: <ul style="list-style-type: none"> ➢ \$100,000 for S&T Directorate's SBIR ➢ \$150,000 for DNDO's SBIR ▪ An additional \$5,000 per year for Technical Assistance ▪ Awardees given automatic access to Auto Harvest Foundation ▪ Participation in DHS/NSF I-Corps Program at \$50,000 (<i>S&T only</i>)
	<p>Phase II: Full Research/R&D Prototype Demonstration</p>	<ul style="list-style-type: none"> ▪ Funded with SBIR funds, 50% may be outsourced ▪ Generally 24 months in duration ▪ Award sizes: <ul style="list-style-type: none"> ➢ \$750K for S&T Directorate's SBIR ➢ \$1,000,000 for DNDO's SBIR ▪ An additional \$5,000 per year for Technical Assistance ▪ Potential for cost match up to \$250,000 (1:2) ▪ Potential for additional \$200,000, 12 months, CRPP award (<i>S&T only</i>) ▪ Participation in DHS/NSF I-Corps Program at \$50,000 (<i>S&T only</i>)
	<p>Phase III: Commercialization (<i>non SBIR funds</i>)</p>	<ul style="list-style-type: none"> ▪ Funded with private or non-SBIR government sources ▪ For work that derives from, furthers the Phase I/Phase II effort, or brings to conclusion ▪ No dollar or time limits ▪ Size standards do not apply ▪ Can be a direct award; competition determined in Phase I



DHS Backup



Homeland
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DNDO's Recent SBIR Topics

	Topic	Grand Challenge
FY 15.1	Mass Anomaly Passive Detector Module	Shielded SNM
	Stable Semiconductor Modules for Radiation Detecting Pagers	Cost Effective
FY 16.1	Smart device Toolkit for Virtual Detection and Training	Cost Effective
	Plastic-Crystal Composite-Based Scintillators	Cost Effective
	Portable Linear Accelerator for Active Interrogation Systems	Shielded SNM
FY 17.1	Unattended Radiation Detection Systems	Wide Area Search

Program Successes:

- Alternative technologies for Helium-3 in radiation portal monitors
- A multi-energy x-ray generator system for cargo inspection
- A training program for field operators that uses computer simulations



DHS SBIR Program Statistics



- 3,737 Phase I proposals submitted
 - Submissions from over 2,100 small businesses
 - 66% of submissions from small businesses with 24 or fewer employees

- Small businesses in 44 states and D.C. received Phase I funding
 - 54% of Phase I awards made to small businesses with 24 or fewer employees
 - 16% of Phase I awards made to women-owned small businesses

- DHS SBIR technologies have resulted in 92 patents applications filed (*47 projects*) *
 - 28 patents issued; 23 patents pending

17
% of Ph I submissions received an award

40
% of Ph I awards received Phase II funding

39
% of Ph II projects received Phase III funding **

40+
Commercial products on the market *

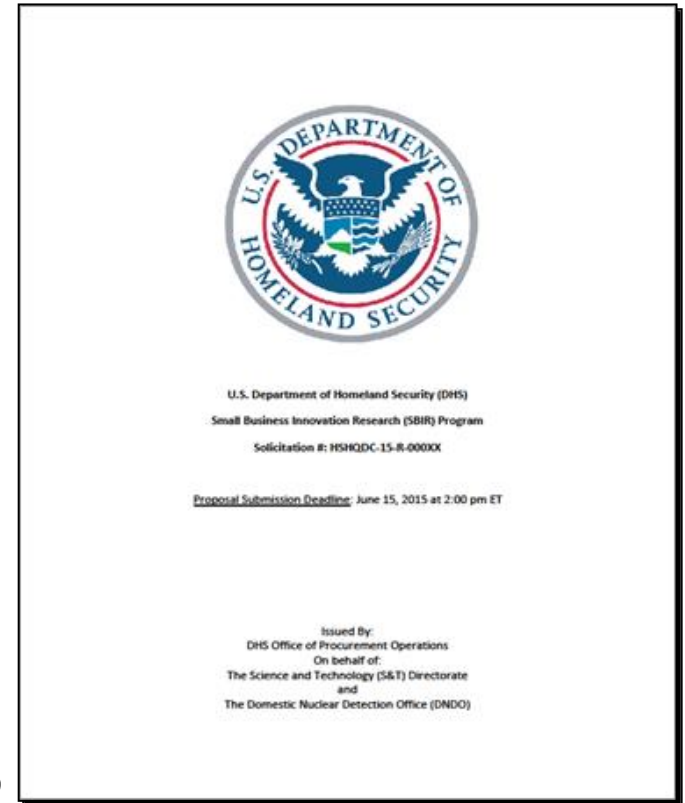
237M
\$ of Ph III funding awarded on DHS SBIR technologies**



* Information collected from a 2013 study of completed SBIR Phase II projects, updated in 2015
 ** Includes DHS internal R&D funds; funding from other government agencies; product sales, licenses, and private investments

Keys to a Successful Proposal

- Be responsive to the topic
 - You can submit to any/all topics
 - Understand the mission and topic
- Write effectively
 - Be technical, but don't overuse jargon
- Set credible objectives
 - Set quantifiable performance metrics and prove they're achievable
- Collaborate with others
 - Leverage your capabilities with others to build a stronger proposal
- Develop a commercialization plan
 - Don't rely on market size statistics



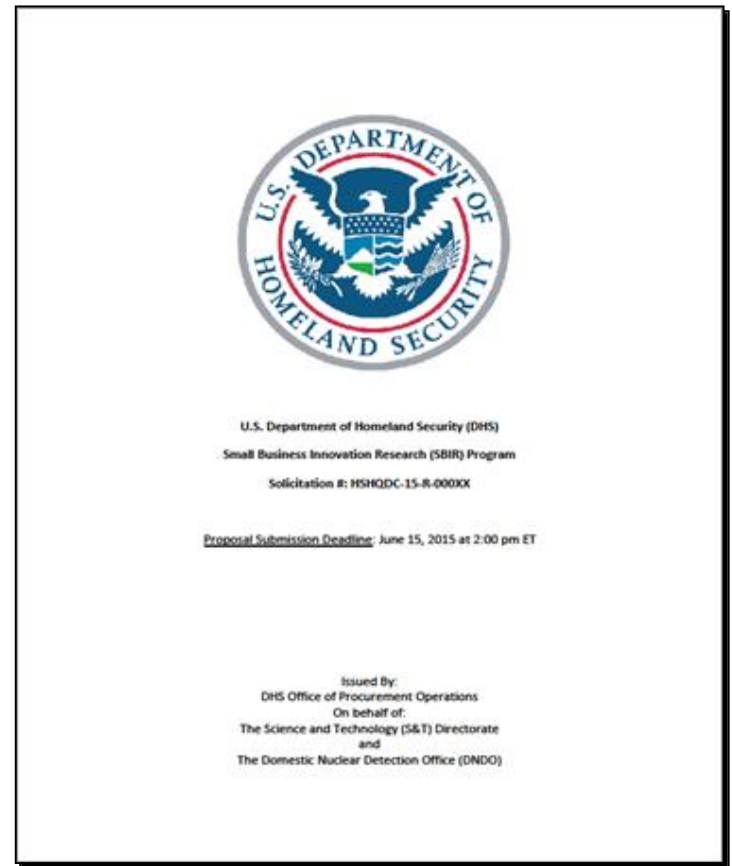
Feedback can be available
upon request!



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DHS SBIR Solicitation Information

- Two DHS organizations; one joint solicitation since FY14
 - Multiple topics relevant to each organization
- Solicitation issued 1x each fiscal year in December
- **Solicitations announced in FedBizOpps**
- Unsolicited proposals are not accepted
- Proposals submitted via a secure on-line portal at <https://sbir2.st.dhs.gov>
- Federal employee review panels; source selection authority

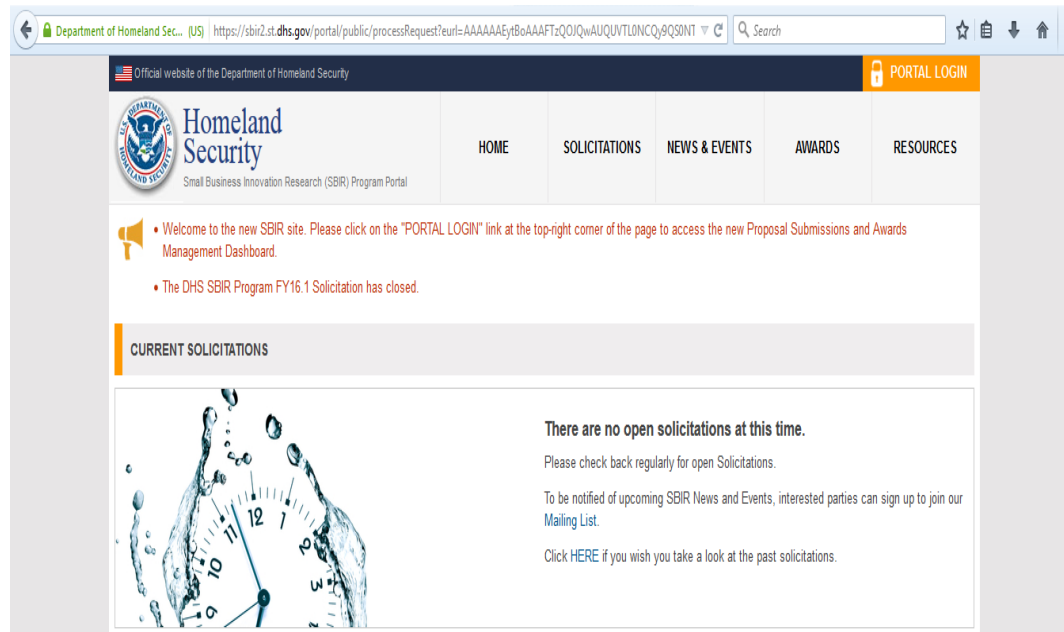


DHS Solicitation Can Be Found Two Ways

- Searching FedBizOpps portal at <https://www.fbo.gov>



- Following the *SBIR Solicitations* link on the DHS SBIR Program portal at: <https://sbir2.st.dhs.gov>



DHS SBIR FY18 Solicitation Schedule



U.S. Department of Homeland Security (DHS)
 Small Business Innovation Research (SBIR) Program
 Solicitation #: HSHQDC-15-R-000XX

Proposal Submission Deadline: June 15, 2015 at 2:00 pm ET

Issued By:
 DHS Office of Procurement Operations
 On behalf of:
 The Science and Technology (S&T) Directorate
 and
 The Domestic Nuclear Detection Office (DNDO)

Solicitation Schedule	
Event	Date
Pre-solicitation issued:	Early December 2017
Direct contact with Topic POC permitted:	Early December 2017 – Mid-December 2017
Solicitation released:	Mid-December 2017
Phase I proposals submission:	Mid December 2017 – Late January 2018
Last day to submit questions:	Early January 2018 (2:00 p.m. ET deadline)
Last day Q&A Posted on FedBizOpps:	~ Mid January 2018
Deadline for receipt of proposals:	Late January 2018 (2:00 p.m. ET deadline)

15
 Days permitted for
 direct contact with
 topic authors

30
 Day open proposal
 submission
 period

90
 Days from
 solicitation close
 to notification



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Key Web Sites

Program Website:

- <https://sbir2.st.dhs.gov>

DHS Agency Website:

- www.dhs.gov

Doing Business with DHS:

- <http://www.dhs.gov/how-do-i/do-business-dhs>

DHS Small Business Assistance:

- <http://www.dhs.gov/small-business-assistance>

To report DHS SBIR fraud, waste and abuse:

- Anonymous Hotline: 1-800-323-8603
- Fax: 202-254-4297
- Mail: DHS Office of Inspector General/Mail Stop 0305
Attn: Office of Investigations - Hotline
245 Murray Drive SW
Washington, DC 20528-0305



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DHS SBIR Points of Contact

S&T Directorate

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DNDO

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Dustin LeClair

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DNDO SBIR Program email

dndosbir@hq.dhs.gov

SBIR Portal Help Desk

Email: dhssbir@reisystems.com
Phone: 703-480-7676





Resources for
Oregon
Companies

SBIR/STTR
support center



Support to qualifying startups planning SBIR/STTR proposals:

Simon and Jun Jiao

- SBIR/STTR grant writing & training
- Funding opportunity searches and solicitation match
- Consulting on eligibility, guidelines & requirements

Learn more at www.oregonbest.org/sbirsttr/

NEW! Training workshop webinar for proposal prep starts 6/14

BUSINESS OREGON



What we Do

- Business Development
- Community Development and Infrastructure
- Innovation and Entrepreneurship
- Arts and Culture

Business Oregon's SBIR Program

- **Proposed a \$1M program for Jul. 1, 2017 – Jun. 30, 2019**
- **Phase 0/00 grants**
 - Up to \$5k per company (1 per 12 months)
 - \$100k budgeted for each year
 - Rolling call for applications but must be working on an open solicitation
- **Matching grants**
 - Most funds likely to be focused on Phase I awardees
 - Previously did grants up to \$50k for Phase I & \$100k for Phase II
 - Likely 1 call for applications per year
- **www.oregon4biz.com/sbir**
- **Mark Brady – 503.689.5638 / mark.brady@oregon.gov**



Resources for Washington Companies

Pacific Northwest NATIONAL LABORATORY



- Small Business Voucher
- Technical Assistance Program



Department of Commerce

Innovation is in our nature.



WASHINGTON

PTAC

Thank you!

Leon Wolf

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For more SBIR/STTR info:

www.oregonbest.org/sbirsttr/

www.sbir.gov/tutorials

