



# ***U. S. Department of Energy (DOE) SBIR and STTR Programs***

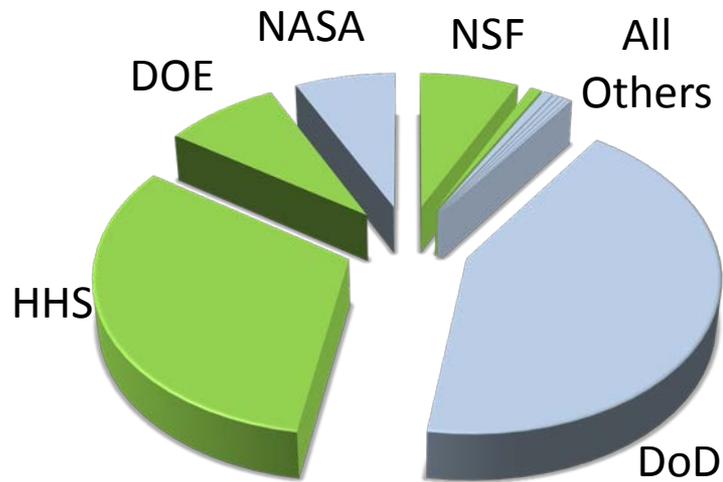
## **Overview**

**Chris O'Gwin  
DOE SBIR/STTR Programs Office**

**Nebraska Business  
Development Center (NBDC)**

**March 22, 2017**

# SBIR and STTR Budgets by Agency, FY 2016



~ \$2.5B in FY2016 across all agencies



Agencies with SBIR and STTR Programs	Budget
Department of Defense (DoD)	\$ 1.070 B
Department of Health and Human Services (HHS), including the National Institutes of Health (NIH)*	\$797.0 M
Department of Energy (DOE), including Advanced Research Projects Agency – Energy (ARPA-E)	\$206.1M
National Aeronautics and Space Administration (NASA)	\$ 180.1 M
National Science Foundation (NSF)	\$176.0 M
Agencies with SBIR Programs	Budget
U.S. Department of Agriculture (USDA)	\$20.3M
Department of Homeland Security (DHS): Science and Technology Directorate (S&T) and Domestic Nuclear Detection Office (DNDO)	\$17.7 M
Department of Commerce: National Oceanic and Atmospheric Administration (NOAA) and National Institute of Standards and Technology (NIST)*	\$8.4M
Department of Transportation (DOT)	\$7.9 M
Department of Education (ED)	\$7.5 M
Environmental Protection Agency (EPA)	\$4.2 M

*\*NIH also issues contracts*



# DOE Mission

- **The mission of the DOE** is to ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions.
  - **Goal 1:** Catalyze the timely, material, and efficient transformation of the nation's energy system and secure U.S. leadership in **clean energy** technologies.
  - **Goal 2:** Maintain a vibrant U.S. effort in **science and engineering** as a cornerstone of our economic prosperity, with clear leadership in strategic areas.
  - **Goal 3:** Enhance **nuclear security** through defense, nonproliferation, and environmental efforts.

## Program Offices Participating in the DOE SBIR/STTR Programs

Electricity Delivery & Energy Reliability

Energy Efficiency & Renewable Energy

Fossil Energy

Nuclear Energy

Advanced Scientific Computing Research

Basic Energy Sciences

Biological & Environmental Research

Fusion Energy Sciences

High Energy Physics

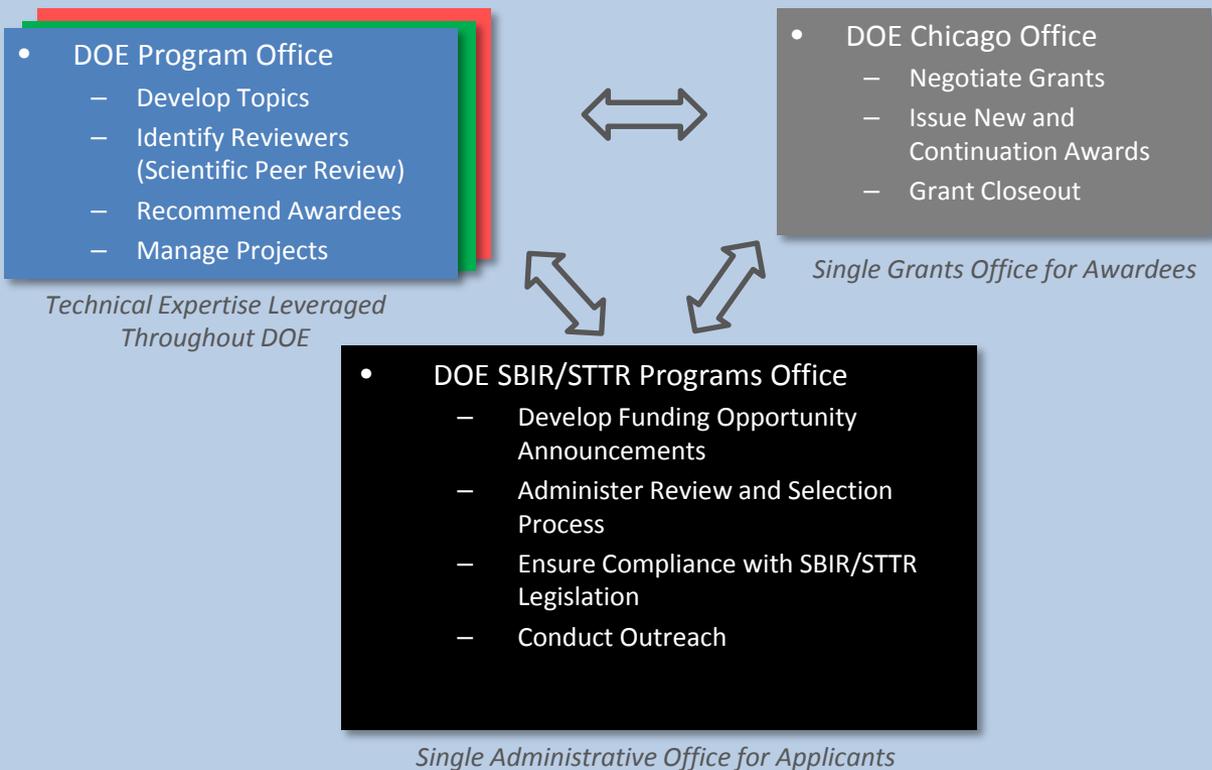
Nuclear Physics

Defense Nuclear Nonproliferation

Environmental Management



# Operation of the DOE SBIR and STTR Programs



# Features of the DOE SBIR/STTR Programs

- *Competitive Grants Driven Program*
- Two Phased Approach
  - \$150K or \$225K Phase I (6-12 months) – Feasibility
  - \$1M or \$1.5M Phase II (24 months) – Development & Sequential (up to 24 months)
  - Technology Transfer Opportunities (TTO)
- DOE uses the same topics for SBIR & STTR
- Applicants can apply to either or both programs with a single application
- Generally, must be awarded DOE Phase I to compete in Phase II
- Offer Application Guidance – [www.doesbirlearning.com](http://www.doesbirlearning.com)
- Offer Phase 0 Assistance – [www.dawnbreaker.com/doephase0](http://www.dawnbreaker.com/doephase0)
- Offer Phase I and Phase II Commercialization Assistance



# Topics

- Topics Document
  - DOE primarily uses focused topics
  - Issued 4 weeks prior to the Funding Opportunity Announcement
- Communication with DOE program managers
  - Open communication permitted about topic scope
- Webinar
  - DOE program managers discuss their topics
  - Applicants submit questions in advance or during the webinar
  - Webinars are recorded and available from our website



## U.S. Department of Energy

Small Business Innovation Research  
(SBIR) and  
Small Business Technology Transfer (STTR)  
Programs

### Topics

FY 2017  
Phase I  
Release 2

Version 2, November 10, 2016

#### Participating DOE Research Programs

- Office of Defense Nuclear Nonproliferation
- Office of Electricity Delivery and Energy Reliability
- Office of Energy Efficiency and Renewable Energy
- Office of Fossil Energy
- Office of Fusion Energy Sciences
- Office of High Energy Physics
- Office of Nuclear Energy



# DOE Program Offices supporting Goal 1: Clean Energy Technologies

- [Office of Electricity Delivery and Energy Reliability](#)
- [Office of Energy Efficiency and Renewable Energy](#)
- [Office of Fossil Energy](#)
- [Office of Nuclear Energy](#)



## **R&D Topic Areas**

- Clean Coal Technologies
- Advanced Turbine Technology
- Oil and Gas Technologies
- Advanced Materials and Technologies for Nuclear Energy
- Smart Grid Technologies
- Energy Storage
- Bio-energy & Biofuels
- Hydrogen & Fuel Cells
- Solar Power
- Water Power
- Wind Energy
- Advanced Manufacturing
- Efficient Buildings & Vehicles



# DOE Program Offices Supporting Goal 2: Science and Engineering Leadership

- [Advanced Scientific Computing Research](#)
- [Basic Energy Sciences](#)
- [Biological and Environmental Research](#)
- [Fusion Energy Sciences](#)
- [High Energy Physics](#)
- [Nuclear Physics](#)



## **R&D Topic Areas**

- Advanced Detectors
- Accelerator technology
- RF Components and Systems
- Data Acquisition, Processing and Analysis
- Fusion Energy Systems
- High Performance Computing & Networking
- Modeling and Simulation
- Atmospheric Measurement Technology
- Genomic Science and Related Biotechnologies
- Advanced Sources: neutron, x-ray, electron



# DOE Program Offices Supporting **Goal 3: Nuclear Security**

- [Office of Defense Nuclear Nonproliferation](#)
- [Office of Environmental Management](#)



## **R&D Topic Areas**

- Novel Radiation Monitoring Concepts
- In Situ Remediation
- Facility Deactivation and Decommissioning
- Remote Sensing
- Global Nuclear Safeguards R&D
- Nuclear Detonation Detection



# FY 2018 SBIR/STTR Phase I Funding Opportunity Announcements

## Phase I Release 1

- Office of Advanced Scientific Computing Research (ASCR)
- Office of Basic Energy Sciences (BES)
- Office of Biological and Environmental Research (BES)
- Office of Nuclear Physics (NP)

## Phase I Release 2

- Office of Defense Nuclear Nonproliferation (NA)
- Office of Electricity Delivery and Energy Reliability (OE)
- Office of Energy Efficiency and Renewable Energy (EERE)
- Office of Environmental Management (EM)\*
- Office of Fossil Energy (FE)
- Office of Fusion Energy Sciences (FES)
- Office of High Energy Physics (HEP)
- Office of Nuclear Energy (NE)



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\*Does not always participate

# Schedule: FY18 Phase I, Releases 1&2

Phase I FOA Schedule	Release 1	Release 2
Topics Issued	July 17, 2017	October 30, 2017
Topic Webinars	Week of July 24, 2017	Week of November 06, 2017
Funding Opportunity Announcement Issued	August 14, 2017	November 27, 2017
FOA Webinar	August 18, 2017	December 01, 2017
Letters of Intent Due	September 05, 2017	December 18, 2017
Full Applications Due	October 16, 2017	February 06, 2018
Award Notification	January 08, 2018*	April 30, 2018*
Grant Start Date	February 20, 2018*	June 11, 2018*

*\*preliminary dates subject to change*



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# Letters of Intent (LOI)

- Requirement
  - You must submit an LOI by the due date to be eligible to submit an application
- Primary purpose
  - begin reviewer assignment to reduce award selection time
  - due 3 weeks after FOA is issued
- Secondary purpose
  - provide email notification to applicants who appear to be non-responsive; you may submit an application if you receive this notification
  - Applicants whose LOI appears responsive will NOT receive a notification
- Limits
  - Small businesses may submit only 10 LOI's (and 10 applications) per solicitation

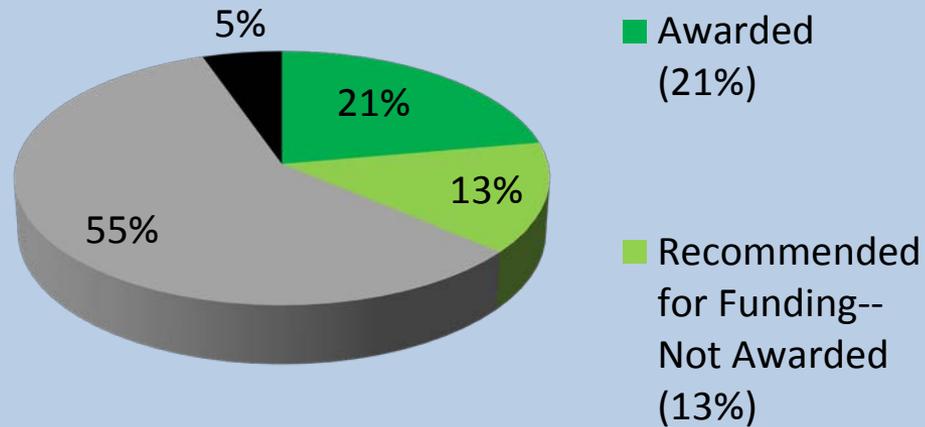
## Content of LOI

- Title
- Topic and subtopic
- Abstract (<500 words)
  - ***Provide sufficient technical detail to enable reviewer assignment***
  - Non-proprietary
- List of collaborators
- Small business information
  - Name, address
  - Business official and contact information
  - Principal investigator



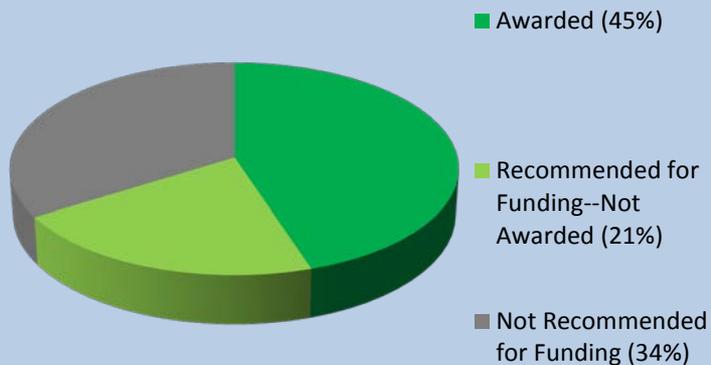
# Application & Award Statistics for FY 2016

- Phase I
  - 1,556 applications
  - 325 awards

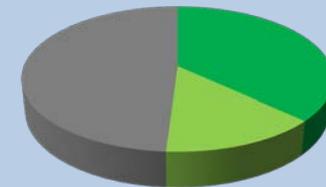


# Phase II Application & Award Statistics for FY 2016

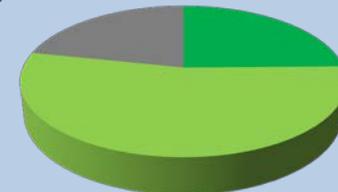
- Phase II
  - 339 applications
  - 152 awards



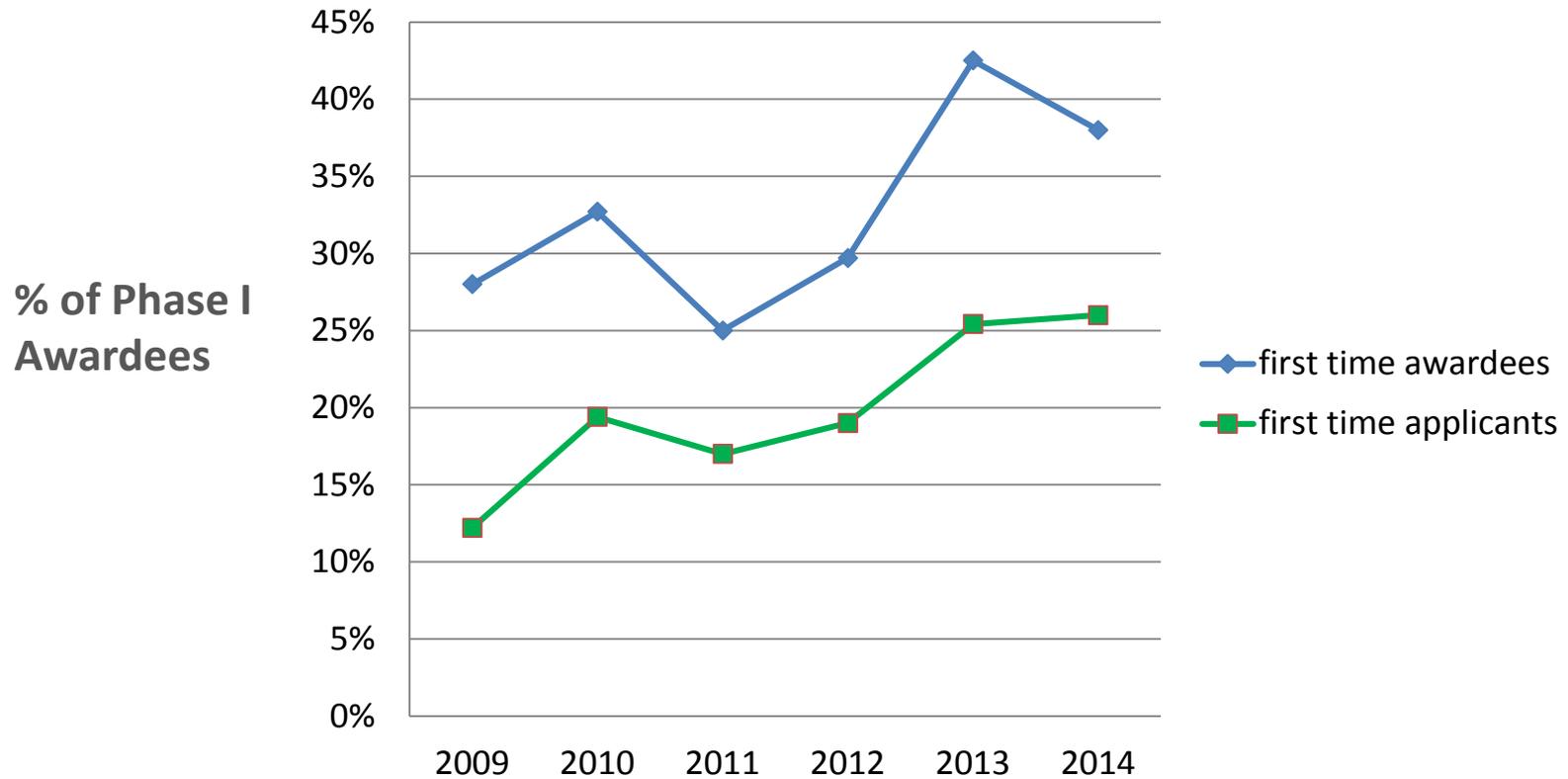
- Phase IIA
  - 35 applications
  - 13 awards



- Phase IIB
  - 33 applications
  - 8 awards



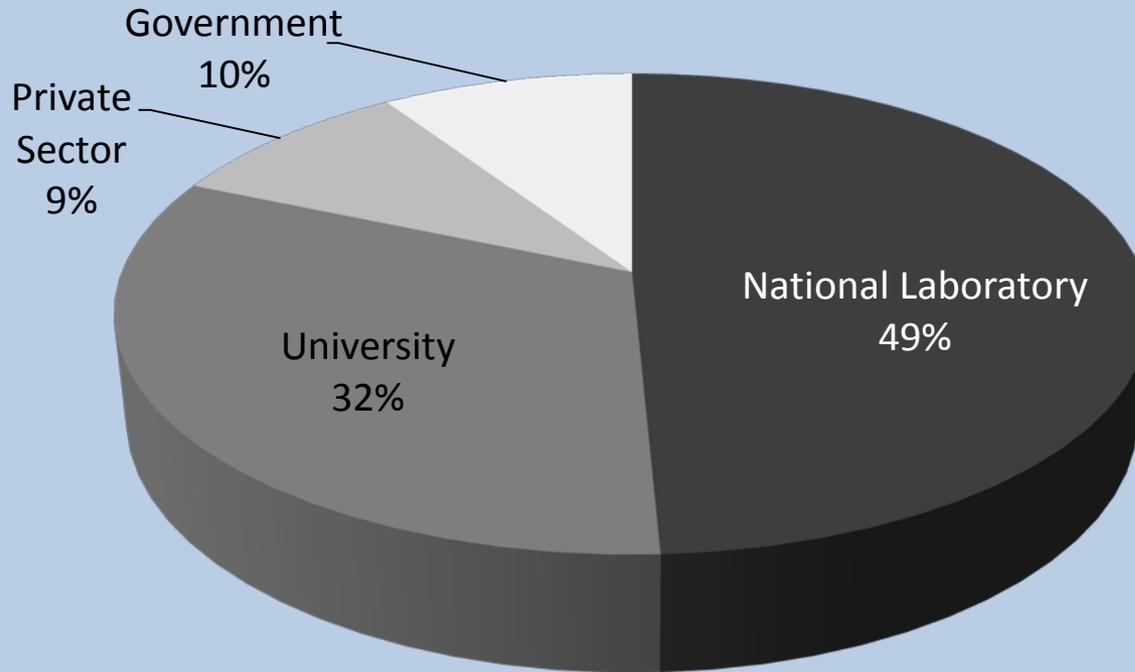
# Phase I Awardees: First Time Winners & Applicants



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# Technical Reviewer Affiliation



- Reviewers agree that (1) they will keep application information confidential and (2) they do not have a conflict of interest in reviewing the application.



# Top 5 Application Errors

- Serious Errors (Applications Ineligible for Review & Administratively Declined)
  - *Failed to update SAM registration early—unable to submit application to Grants.gov by deadline*
  - *Failed to submit a Phase I Commercialization Plan*
    - Submit in Field 12 of the Research & Related : Other Project Information Form
  - *Improper filenames for attachments to grants.gov application*
    - Use only standard characters in file names: A through Z, a through z, 0 through 9, and underscore (\_). Do not use any special characters (example: “&”, “-”, “\*”, “%”, “/”, and “#”) or spacing in the file name. Use underscore (example: “My\_Attached\_File.pdf”) for word separation.
- Other Errors (may limit funding eligibility or delay award processing, if recommended for award)
  - *Failed to accurately calculate level of effort (for SBIR and/or STTR)*
    - Use [level of effort worksheet](#) to assist you with the calculation
  - *Failed to properly mark proprietary data*
    - See FOA for instructions



# Phase 0 Assistance Program



- Goal
  - increase the number of responsive, high quality proposals from under-represented groups
    - small businesses from states with historically low SBIR/STTR applications to the DOE
      - AK, DC, GA, HI, IA, ID, IN, KS, LA, ME, MN, MS, MT, NC, ND, **NE**, NY, OK, PA, PR, RI, SC, SD, WA, WI
    - women-owned small businesses
    - minority-owned small businesses
- Services
  - Letter of Intent (LOI) writing assistance
  - Phase I proposal preparation, review and submission assistance
  - Small business development training and mentoring
  - Communication and market research assistance
  - Technology advice and consultation
  - Indirect rate and financial information
  - Partner Travel (promote collaboration with DOE Labs)
- Cost
  - No cost to DOE participants
- Phase 0 Assistance: [www.dawnbreaker.com/doephase0/](http://www.dawnbreaker.com/doephase0/)
- Phase I Application Assistance: [www.doesbirlearning.com](http://www.doesbirlearning.com)



# Online Application Help

- DOE online learning system to assist new applicants:
  - <http://www.doesbirlearning.com>
- Additional resources can be found on our website:
  - [www.science.energy.gov/sbir/applicant-and-awardee-resources/](http://www.science.energy.gov/sbir/applicant-and-awardee-resources/)



# DOE SBIR/STTR Programs Office Contact Information

- SBIR/STTR Web: [www.science.energy.gov/sbir](http://www.science.energy.gov/sbir)
- SBIR/STTR Mailing list: <http://bit.ly/2fb3mBh>
- Email: [sbir-sttr@science.doe.gov](mailto:sbir-sttr@science.doe.gov)
- Phone: 301-903-5707
- DOE Phase 0 Small Business Assistance: <http://www.dawnbreaker.com/doephase0/>
- DOE Phase 0 Online Learning Center: [www.doesbirlearning.com](http://www.doesbirlearning.com)



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