




*Update on DOE's
Small **B**usiness **I**nnovation **R**esearch (SBIR)
and Small Business **T**echnology **T**ransfer
(STTR) Programs*

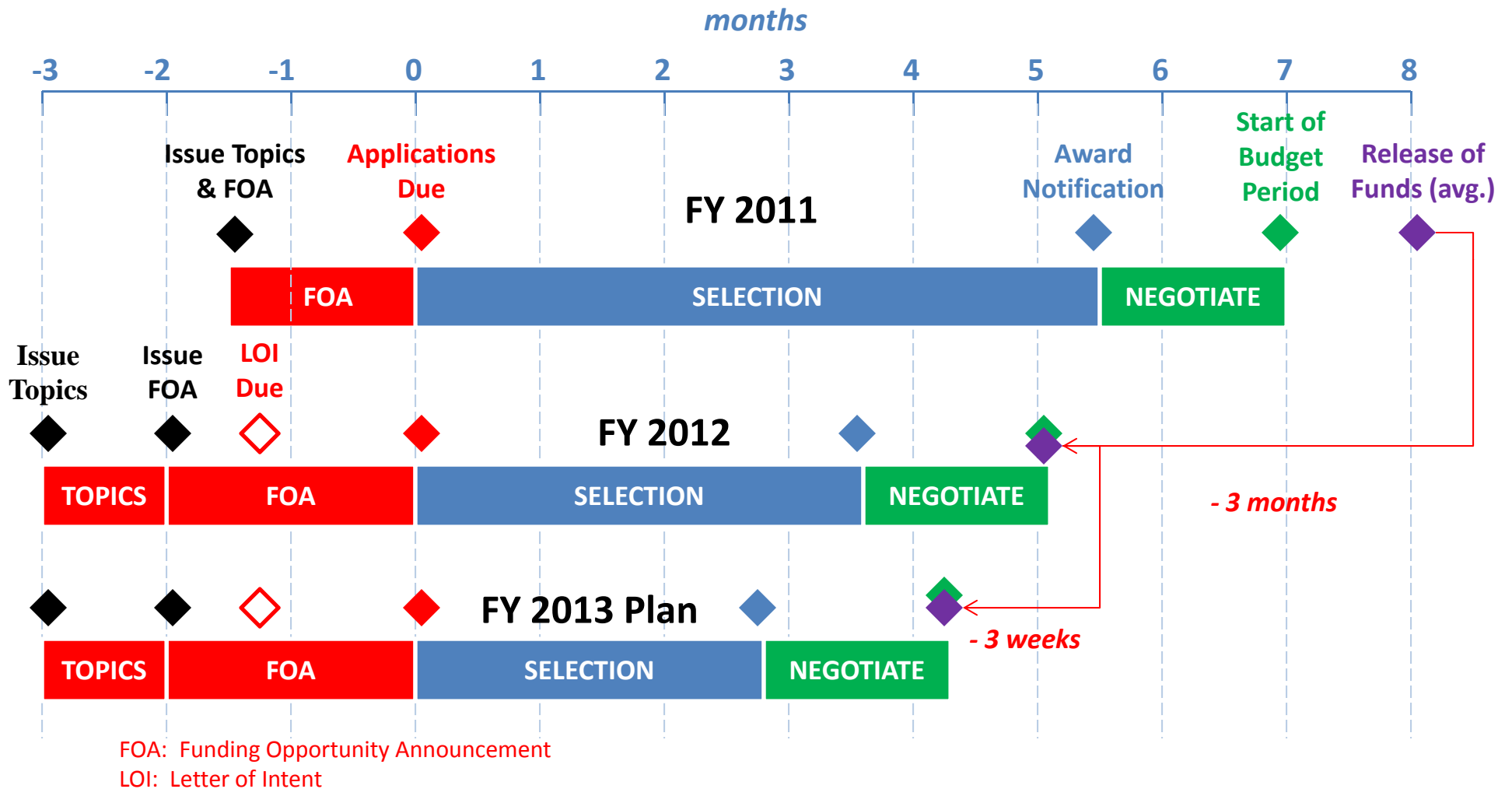
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October 2, 2012



Improving Our Processes

Improvements in Phase I Processes



Topics

- Topics posted 4 weeks in advance of the FOA
 - Allows direct interaction of applicants with DOE Program Managers
 - Provides additional time to develop ideas
- Implemented Topics Webinar
 - Topic Managers briefly discuss their topics and answer questions
 - Very Positive Feedback from Applicants
 - “Very good overview with the right level of detail.”
 - “Very informative, thank you for facilitating and organizing!”
 - “Good coverage of your program areas. Look forward to your future webinars.”



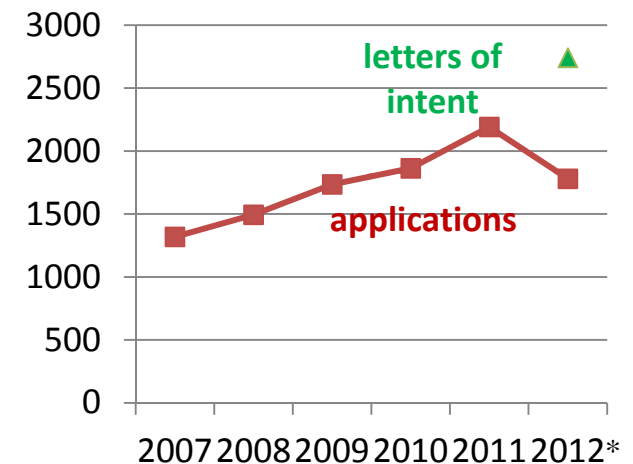
FOAs

- Implemented Transition from Single FOA to Multiple FOAs
 - More efficient utilization of resources at DOE SBIR/STTR Programs Office & Chicago Office
 - Provides application opportunities throughout the year for small businesses
- Implemented FOA Webinar (Releases 2 & 3)
 - Discuss changes to the application process
 - Positive feedback from Applicants
 - “Best handling of SBIR administrative communication I've seen by a Federal agency.”
 - “Once again the information was well laid out.”
 - “I am encouraged that we will receive a recording of this Webinar.”



Letters of Intent

- Implemented Letters of Intent
 - Primary purpose: begin reviewer identification prior to receipt of full applications to reduce award selection time
- Letters of Intent
 - Short technical abstract (500 words)
 - Provide feedback on those that “appear” to be non-responsive
 - Useful for identifying reviewer pool
 - Starting in FY13, submitted through the Portfolio Analysis and Management System (PAMS) used by the Office of Science



*FY12 data for Releases 1&2



Page & Word Limits

- Beginning in FY13, we have initiated page & word limits for the project narrative
 - Phase I: 15 pages, 7,500 words
 - Phase II: 20 pages, 10,000 words
 - Fast-Track: 25 pages, 12,500 words



Commercialization Plans

- Phase I
 - Beginning in FY12, we required a brief Phase I commercialization plan
 - NAS study: 1/3 of DOE awardees stop working on their technologies after Phase II because they discovered the market is too small
 - Example posted on our website:
<http://science.energy.gov/~media/sbir/pdf/docs/ExamplePhaseICommercializationPlan61112.pdf>
- Phase II
 - Content: See Phase II Funding Opportunity Announcement
 - Beginning in FY13, we will require an estimate of the projected revenues in comparison to the projected investment as part of the Phase II commercialization plan



Phase I Commercialization Plan

- (1) Market Opportunity: Describe the market opportunity being addressed. You MUST include the following statement at the beginning of your Commercialization Plan:
 - “(COMPANY NAME HERE) estimates sales revenues of \$_____ and licensing revenues of \$_____ during the first 10 years of commercialization.”
- (2) Intellectual Property (IP): Describe the status of patents, trade secrets, and other steps you plan to take to protect your IP for commercialization.
- (3) Company/Team: Describe the capability of your present personnel and/or planned additions to your staff that will enable you to successfully commercialize your innovation.



Application Outcomes

- Beginning in FY12, we provided more timely and specific feedback on your applications
- Those that are declined without review will be notified early in the review process
- Those that are reviewed will be notified whether they were
 - Not recommended for funding
 - Recommended for funding, not awarded
 - Awarded

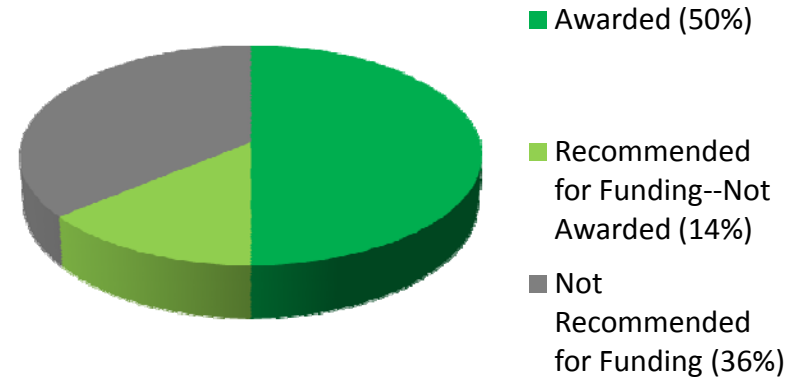
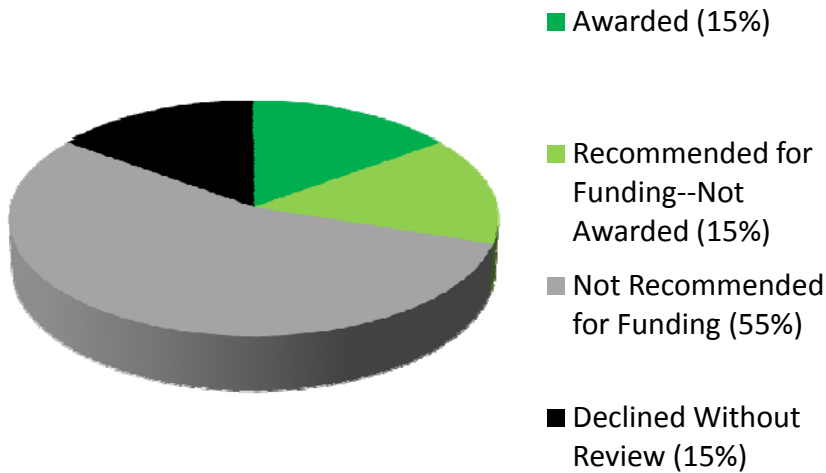
Application Statistics for FY12 (for Releases 1&2)

- Phase I

- 1733 applications
- 253 awards

- Phase II

- 208 applications
- 104 awards



Changes to Final Reports

- Phase I
 - Previously: 90 day requirement
 - If you did not apply for Phase II, within 90 days of end of Phase I budget period
 - If you apply for Phase II
 - And are awarded, no Phase I final report required
 - If not awarded, 90 days from notification
 - FY12 & future awardees: 14 day requirement
 - Required for all Phase I awardees within 14 days of the end of their Phase I budget period
 - Required with your Phase II application
- Phase II
 - Previously: 90 day requirement
 - FY12 & future awardees: 30 day requirement

Technology Transfer Opportunities (TTOs)

- New feature for the DOE SBIR/STTR Programs in FY 2013
 - 17 TTOs from 7 DOE Labs have been included in the Phase I Release 1 Topics
 - Additional TTOs may be selected for Release 2



Example TTO

Labeled as TTO



i. **Technology Transfer Opportunity: Boron-Based Nano-proportional Counting System for Neutron Detection**

Applicants to Technology Transfer Opportunities should review the section describing Technology Transfer Opportunities on page 1 of this document prior to submitting applications.

This invention relates to a redesign of the anodes in gas proportional counting systems for neutron detection. The new design is comprised of conductive boron doped silica and nanowires results in higher detection efficiencies. The nano-sized anodes when present within an anode array can allow for: significantly higher detection efficiencies due to a higher electric field, system miniaturization, and have low power requirements. This system also eliminates the need for Helium-3 which is in short supply. Applications for this Technology Transfer opportunity are sought to optimize prototype design and develop an integrated system demonstrating the feasibility for use of this detector.

Savannah River National Laboratory information:

Contact: Eric Frickey (eric.frickey@srnl.doe.gov).

Website: http://srnl.doe.gov/tech_transfer/tech_transfer.htm

Lab Contact

Contact the Lab with questions about the TTO



Questions – contact Manouchehr.farkhondeh@science.doe.gov

DOE program manager contact information



U.S. DEPARTMENT OF
ENERGY

SBIR/STTR
Programs Office

TTOs: FAQ

- **What is a Technology Transfer Opportunity?**
 - an opportunity to leverage technology that has been developed at a DOE National Laboratory
 - typically the technology was developed with DOE funding of either basic or applied research at a DOE National Laboratory
 - the level of technology maturity will vary and applicants are encouraged to contact the appropriate Laboratory prior to submitting an application.
- **How would I draft an appropriate project description for a TTO?**
 - write a Phase I project plan that describes the research or development that you would perform to establish the feasibility of the TTO for a commercial application.
 - your project plan should clearly indicate how you will leverage the prior R&D carried out by the National Lab

TTOs: FAQ

- **Am I required to have a subcontract to the DOE Lab in my grant application?**

No. Your project plan should reflect the most fruitful path forward for developing the technology.

- **Is the National Lab required to become a subcontractor if requested by the applicant?**

No. Collaborations with National Labs must be negotiated between the applicant small business and the National Lab.

- **Are there patents associated with the TTO?**

The TTO will be associated with one or in some cases multiple patent applications or issued patents.



TTOs: FAQ

- **If selected for award, what rights will I receive to the technology?**
 - Awardees will be assigned rights to perform research and development of the technology during their Phase I or Phase II grants. Please note that these are NOT commercial rights which allow you to license, manufacture, or sell, but only rights to perform research and development.
 - In addition, an awardee will be provided, at the start of its Phase I grant, with a no-cost, six month option to license the technology. It will be the responsibility of the small business to demonstrate adequate progress towards commercialization and negotiate an extension to the option or convert the option to a license. A copy of an option agreement template will be available at the National Laboratory which owns the TTO.



TTOs: FAQ

- **How many awards will be made to a TTO subtopic?**
 - we anticipate making a maximum of one award per TTO subtopic.
- **How will applying for an SBIR or STTR grant associated with a TTO benefit me?**
 - By leveraging prior research and patents from a National Lab you will have a significant “head start” on bringing a new technology to market.
- **Is the review and selection process for TTO topics different from other topics?**
 - No. Your application will undergo the same review and selection process as other applications.



Fast-Track Applications

- Beginning in FY13, we will accept Fast-Track applications with our Phase I Funding Opportunity Announcements
- What is a Fast-Track application?
 - Combined Phase I/Phase II application
 - Budget period: 33 months
 - 9 months for Phase I
 - 24 months for Phase II
 - Technical Narrative
 - Covers the entire budget period
 - Commercialization Plan
 - Requires Phase II commercialization plan (Phase I commercialization plan not required)

Fast-Track Application

- Primary Benefit: Awardees of Fast-Track applications will not have a gap in their funding between Phase I and Phase II.

Current Process:
5 month Phase I – II funding gap



Fast-Track process



- Applicants must have a compelling Phase I/Phase II application.
 - May not be suitable for risky Phase I research with many different paths for Phase II
 - May not be suitable for those with limited commercialization experience.

Fast Track Continuation Applications

- Fast Track awardees will submit continuation applications (progress reports):
 - By the 7th month of the Phase I budget period
 - By the 9th month of the Phase II budget period
- DOE program managers will review continuation applications and make recommendations for continuation.

Fast Track FAQ

- May I submit both a regular Phase I and a Fast-Track application for the same project?
 - NO. You must submit either a Phase I or a Fast-Track application, but not both.
- What percentage of the awards will be Fast-Track vs. regular Phase I?
 - Because this is the initial year, we don't know how many applicants will choose to submit Fast-Track applications and the quality of those applications. It is therefore not possible to give an accurate estimate of the award breakdown.
- Will all topics accept Fast-Track applications?
 - The majority of topics will accept both Phase I and Fast-Track applications. Some topics may NOT accept Fast-Track applications. Some topics may ONLY accept Fast-Track applications. Restrictions will be listed immediately after the topic name.



Reauthorization

Increasing Allocations

- Both SBIR & STTR programs have been reauthorized through September 30, 2017
- Reauthorization will increase the percentage of extramural R&D funds that are allocated to the SBIR and STTR programs
 - If R&D budgets remain flat, the SBIR/STTR budgets will increase by 30% over this time period

	<i>FY11</i>	<i>FY12</i>	<i>FY13</i>	<i>FY14</i>	<i>FY15</i>	<i>FY16</i>	<i>FY17</i>
SBIR	2.5%	2.6%	2.7%	2.8%	2.9%	3.0%	3.2%
STTR	0.30%	0.35%	0.35%	0.40%	0.40%	0.45%	0.45%
combined	2.80%	2.95%	3.05%	3.20%	3.30%	3.45%	3.65%



Maximum Award Amounts

- Beginning with FY13, maximum award amounts will be specified for each topic
- DOE plans to use two maximum award amounts on a regular basis
 - SBA guideline: Phase I, \$150,000/Phase II, \$1,000,000
 - 150% of SBA guideline: Phase I, \$225,000/Phase II, \$1,500,000
- There is also the possibility that individual topics will have amounts >150% of the SBA guideline



Collaborations with Research Institutions

- Beginning in 2013, you are no longer restricted from including a subcontract to a National Lab in your SBIR application
 - Previously, subcontracts to National Labs were permitted only for STTR applications. A waiver from SBA was required to include an subcontract to a National Lab in an SBIR application.



Switching Programs at Phase II

- Beginning in FY13, Phase II applicants may switch programs (from SBIR to STTR or vice versa)
 - Previously you were required to remain in the same program as Phase I



Certifications

- Beginning in FY13, all awardees will sign the new certifications specified in Reauthorization
 - Time of Award certification
 - Post Award certifications
 - Phase I, with final report
 - Phase II, with continuation application and with final report
- Companies that are majority-owned by multiple venture capital, hedge fund, or private equity firms will register with SBA and certify their eligibility to participate in the SBIR and STTR programs.

Commercialization Assistance

- Beginning at the second half of FY12, companies were able to select their own commercialization assistance vendor
 - Company must include this vendor as a subcontractor or consultant in their Phase I or II application
- DOE Commercialization Assistance will be provided by Dawnbreaker
 - Phase I assistance
 - Commercialization readiness assessment
 - Focused assistance with development of Phase II commercialization plans
 - Phase II assistance
 - Flexible offerings to meet a variety of commercialization needs
 - <http://science.energy.gov/sbir/commercialization-assistance/>



Commercialization Rate Metrics

- Each agency required to set up metrics for
 - Phase I → Phase II success rate
 - Issued by 12/31/12
 - Phase II → Phase III success rate
 - Issued by 12/31/13
- Per the SBIR & STTR policy directives, metrics will be developed by each agency but applied to a company's awards across all agencies.
- Metric to be applied annually
 - Companies that fail to meet the either metric will be ineligible to apply for any Phase I awards from that agency for 1 year.



A black and white photograph of a bright sun in a cloudy sky. The sun is positioned in the upper left quadrant, creating a strong lens flare effect. The sky is filled with various cloud formations, including large, fluffy cumulus clouds and smaller, more delicate cirrus clouds. The overall tone is bright and airy.

Questions?