Welcome to the U.S. DOT Small Business Innovation Research (SBIR) Webinar

- The webinar will begin shortly.
- This webinar will be view and listen only.
  - **All questions must be emailed to DOTSBIR@dot.gov and will be responded to following the webinar.**
- To listen, please call in using the telephone number and passcode that was emailed to you when you registered.
- Please mute your phone.
Pre-Offer Webinar

U.S. DOT Small Business Innovation Research (SBIR) Program

Solicitation No. 6913G619QSBIR1

February 27, 2019

Volpe
The National Transportation Systems Center

Advancing transportation innovation for the public good

U.S. Department of Transportation
John A. Volpe National Transportation Systems Center
Today’s Agenda

- Ground Rules and Logistics
- SBIR Overview
- Eligibility & Requirements
- Offer Preparation
- Solicitation Appendices
- Evaluation Factors & Award Information
- DOT/OIG Fraud Awareness
- SBIR FY 2019 Topics
- Important Dates and Reminders

Presenters

Melissa Wong
SBIR Program Manager

Tammy Ann Taylor
Contracting Officer
Ground Rules and Logistics

- This webinar is being recorded and will be posted to the DOT SBIR website.

- No verbal or written questions regarding the solicitation topics during the pre-offer webinar.

- Any statements or remarks made during the webinar shall not alter the terms of the solicitation.

- The terms and conditions of the solicitation remain unchanged unless an amendment is issued that incorporates any changes discussed or alluded to during the webinar.
Ground Rules and Logistics (cont’d)

- All questions pertaining to the FY 2019 U.S. DOT SBIR solicitation research topics must be submitted to the U.S. DOT SBIR Program Office via email at dotsbir@dot.gov.

- Administrative and Technical questions will be accepted through April 3, 2019 at 5:00 PM ET.

- Cost Appendix questions will be accepted through April 15, 2019 at 5:00 PM ET.

- Answers to all questions will be posted in the “Solicitations” section of the U.S. DOT SBIR Program website: http://www.volpe.dot.gov/work-with-us/small-business-innovation-research/solicitations.
SBIR Overview
SBIR Overview

- Congress established the SBIR Program to:
  - stimulate technological innovation
  - utilize small business to meet federal research and development needs
  - encourage participation by minority and disadvantaged businesses in technological innovation, and
  - increase private sector commercialization of innovations derived from federal R&D
SBIR Reauthorization


- Agencies must expend not less than 3.2% of their extramural budgets for research and research and development on small business concerns in the SBIR Program.
How SBIR Supports the Mission of DOT

• The mission of the DOT is to ensure a fast, safe, efficient, accessible and convenient transportation system that meets vital national interests and enhances the quality of life of the American people

• SBIR addresses high priority research gaps within DOT’s R&D Program

• SBIR topics are developed to align with Secretary’s strategic priorities, specific modal priorities, and SBA goals
## Snapshot of Phase I Participation in DOT’s SBIR Program by Agency

<table>
<thead>
<tr>
<th>DOT Operating Administration</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Aviation Administration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal Highway Administration/ITS Joint Program Office</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Federal Railroad Administration</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Federal Transit Administration</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Federal Motor Carrier Safety Administration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>National Highway Traffic Safety Administration</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Office of the Secretary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Pipeline and Hazardous Materials Safety Administration</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>
Administering the DOT’s SBIR Program

- Secretary of Transportation chose the Volpe Center to direct the Department's SBIR Program in November 1982

- SBIR Program Office
  - Directs all activities required under the SBIR law
  - Executes the policy established by the Small Business Administration
  - Coordinates with eight DOT Operating Administrations
  - Solicits, awards and administers contracts
Eligibility & Requirements

Section I of Solicitation
Eligibility & Requirements

- See 13 CFR § 121.702 for SBA’s definition for the term “small business concern”.

- The U.S. DOT elects at this time - not to use the authority that would allow venture capital operating companies (VCOCs), hedge funds or private equity firms to participate in the SBIR Program. Offers submitted by these parties will not be considered for award.

- The primary employment of the principal investigator must be with the small business firm at the time of contract award and during the conduct of the proposed research. Primary employment means that more than one-half of the principal investigator's time is spent working for the small business.
Who Qualifies as a “small business concern” (SBC).

- Organized as for-profit U.S. business
- 500 or fewer employees including affiliates
- Work must be done in the U.S. (with few exceptions)
- Greater than 50% U.S.-owned by individuals and independently operated (with few exceptions)
Eligibility & Requirements (cont’d)

- For Phase I, a minimum of **two-thirds** of the research or analytical effort, measured in total contract dollars using simple math (67%), must be performed by the awardee.
- For Phase II, a minimum of **one-half** of the research or analytical effort, measured in total contract dollars on costs incurred for personnel, must be performed by the awardee.
- Additionally, for Phase I and Phase II and IIB, the R/R&D work must be performed in the United States (with few exceptions).
Eligibility & Requirements (cont’d)

- For Phase I, a minimum of two-thirds of the research or analytical effort, measured in total contract dollars using simple math (67%), must be performed by the awardee.

- For Phase II, a minimum of one-half of the research or analytical effort, measured in total contract dollars on costs incurred for personnel, must be performed by the awardee.
Performance Benchmarks

Phase I to Phase II Transition Rate
For all U.S. DOT SBIR Program Phase I applicants that have received 20 or more SBIR Phase I awards over the last 5 Government fiscal years, excluding the most recently completed fiscal year, the ratio of Phase II awards received to Phase I awards received must be at least 0.25.

Commercialization Benchmark
The Commercialization Rate is not a requirement for this Solicitation.

For more information on these performance benchmarks, visit http://www.sbir.gov/performance-benchmarks.
Offer Preparation

Section II of Solicitation
Offer Layout

See Section II(B)(2) for detailed instructions!

Submit three files:
1. Technical (PDF)
2. Cost (Appendix C) (Excel or PDF)
3. Appendices A and B (PDF)
Required Registrations

- Register for a DUNS Number
  [https://iupdate.dnb.com/iUpdate/companylookup.htm](https://iupdate.dnb.com/iUpdate/companylookup.htm)

- Register in System for Award Management (SAM)
  [https://www.sam.gov/portal/SAM/](https://www.sam.gov/portal/SAM/)

- Register for a Small Business Administration Small Business Concern ID Number (SBA SBC ID)
  [https://www.sbir.gov/registration](https://www.sbir.gov/registration)
## Phase I Offer Submission Process DO’s

<table>
<thead>
<tr>
<th>DO's</th>
<th>DO's</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Read the Solicitation and follow <strong>all</strong> the instructions for submission</td>
<td>- Provide a detailed and well-organized work plan</td>
</tr>
<tr>
<td>- Follow layout guidance and section organization instructions.</td>
<td>- Follow the procedures for requesting clarifications/questions on research topics</td>
</tr>
<tr>
<td>- Ensure your offer aligns with the scope of the research topic</td>
<td>- Provide qualifications for key personnel in addition to PI</td>
</tr>
<tr>
<td>- Obtain a DUNS number prior to offer submission</td>
<td>- Check to ensure completed appendices are included</td>
</tr>
<tr>
<td>- Register in System for Award Management (SAM)</td>
<td>- Double check all cost figures and calculations; align to supporting documentation</td>
</tr>
<tr>
<td></td>
<td>- Sign Appendix A</td>
</tr>
</tbody>
</table>
Phase I Offer Submission Process DON’Ts

DO NOT . . .
- Send offers via email
- Submit duplicate offers
- Ask the Program Office for guidance on whether or not your company should submit an offer
- Create arbitrary overhead, indirect, or profit/fee rates
- Wait until the deadline to submit your offer
Solicitation Appendices
Required Appendices
Available on U.S. DOT SBIR website

- Signature Page (Appendix A) – MS Word
- Project Summary (Appendix B) – MS Word
- Contract Pricing Worksheet (Appendix C) – Excel
Appendix C - Cost Information

- Carefully read the SBIR Phase I Cost Proposal Instructions for Appendix C (Cost Proposal)
- Provide supporting information for all costs proposed so that the Government may award your contract promptly.
- Any cost that is not supported may cause the offer amount to be reduced.
Appendix C - Cost Information

- **Schedule A - Indirect Costs**
  Provide DCAA Indirect Rate Agreements to support indirect rates proposed. If not available, provide detailed cost elements of indirect rates to support rate(s) proposed.

- **Schedule C - Material Costs**
  Provide internet quote or other backup to support unit price.

- **Schedule F – Subcontracts and Consultants**
  Participant must provide complete cost details for subcontract amount and include a letter of commitment from subcontractor.

- **Schedule I - Narrative Explanation**
  Provide a detailed explanation for all costs proposed which will allow your offer to be analyzed quicker and your contract to be awarded sooner!
Evaluation Factors & Award Information
Section III of Solicitation
Evaluation Factors for Phase I

1. Scientific/Technical Merit and Feasibility
2. Effectiveness of the Proposed Work Plan
3. Experience, Qualifications, and Facilities
4. Commercial Potential and Feasibility
All offers will be screened to determine responsiveness to the solicitation instructions.

Responsive offers will be evaluated by topic experts who will determine if it has Scientific/Technical Merit and Feasibility.

Offers that are rated acceptable on Scientific/Technical Merit and Feasibility will be evaluated in the other three factors.

An offer found to be unacceptable on Scientific/Technical Merit and Feasibility will not be considered for award.
Award Information

- All Phase I awards will be Firm-Fixed-Price contracts or bilateral small purchase orders.
- The period of performance for a Phase I award shall be 6 months.
- Funding levels for each topic are determined by the agency sponsoring the research. Offers that exceed the Phase I Estimated Award Amount listed in Section VIII of the solicitation will not be considered for award.
- Under Phase I SBIR awards, three reports will be required, consisting of two interim narrative reports, and a comprehensive final report.
- Payments for Phase I efforts will be made in three equal installments upon submission of invoices, in accordance with instructions in the award document.
The DOT-OIG conducts criminal, civil and administrative investigations of allegations of fraud, waste and abuse.

DOT-OIG Special Agents are criminal investigators authorized to independently investigate allegations involving a person or entity that has engaged in fraudulent or other criminal activity relating to the programs and operations of the U.S. DOT.
Areas of investigative focus include:

**False Statements/False Claims:**

Any Statement/Claim for reimbursement containing False, Fictitious, Fraudulent representations (invoices, statements of work, technical representations, material overcharging).

**Bribery**

Offering a government official something of value in exchange for an official act.

**Product Substitution**

Misrepresentation of the quality/quantity/qualifications of the products produced/furnished.

hotline@oig.dot.gov /617-494-2701
FRAUD AWARENESS
DOT/OIG Investigations

U. S. Department of Transportation
Office of Inspector General
Office of Investigations

DOT-OIG Hotline 1-800-424-9071
Email: hotline@oig.dot.gov

New England Regional Office
Volpe Center
55 Broadway, Cambridge, MA 02142
Special Agent-in-Charge Todd A. Damiani
(617) 494-2701
U.S. DOT SBIR FY 2019 Topics

Section VIII of Solicitation
## FY 2019 Topics

<table>
<thead>
<tr>
<th>Topic Number &amp; Title</th>
<th>Estimated Award Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phase I</td>
</tr>
<tr>
<td>FY 2019</td>
<td></td>
</tr>
<tr>
<td>19-FH1: Vehicle Communication via Induction Paint</td>
<td>$150,000</td>
</tr>
<tr>
<td>19-FH2: Innovative, Low-Cost Methods for Concrete Bridge Deck Assessment</td>
<td>$150,000</td>
</tr>
<tr>
<td>19-FM1: Secure Motor Carrier Safety Data Information Exchange Using Blockchain</td>
<td>$150,000</td>
</tr>
<tr>
<td>19-FT1: Cost Allocation Technology for Non-Emergency Medical Transportation</td>
<td>$150,000</td>
</tr>
<tr>
<td>19-PH1: Inline-Inspection (ILI) Tool for Detecting Coating Defects/Disbondment of Coating</td>
<td></td>
</tr>
</tbody>
</table>

*Update, 3/5/19: The Government has cancelled this topic. Please refer to Amendment 0001.*

| 19-NH1 Automated Driving Systems (ADS) Test Data Interface | $150,000 | $500,000 |
# FY 2019 Topics

<table>
<thead>
<tr>
<th>Topic Number &amp; Title</th>
<th>Estimated Award Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-FR1: Portable Stiffness/Elastic Modulus Measurement System</td>
<td>$150,000 $300,000</td>
</tr>
<tr>
<td>19-FR2: Wireless Pore Water Pressure Sensor</td>
<td>$150,000 $300,000</td>
</tr>
<tr>
<td>19-FR3: Automated Detection of Broken Spike Fasteners in Wood Tie Railroad Track</td>
<td>$150,000 $300,000</td>
</tr>
<tr>
<td>19-FR4: In-Vehicle Highway Rail Grade Crossing Alert System</td>
<td>$150,000 $500,000</td>
</tr>
<tr>
<td>19-FR5: Improved Condition Monitoring of Traction Motors</td>
<td>$150,000 $500,000</td>
</tr>
<tr>
<td>19-FR6: Automated, Drone-Based Grade Crossing Inspection</td>
<td>$150,000 $300,000</td>
</tr>
</tbody>
</table>
Topic Funding Considerations

Offers that exceed the Phase I Estimated Award Amount will not be considered for award.

The Phase II funding level noted is an estimate only, is subject to the availability of funds and/or the technical requirements to accelerate the development of a commercial product and/or innovation. Any changes to the Phase II estimated funding level listed will be communicated to the small business when instructions on the Phase II process are sent approximately 1 month prior to the end of the Phase I project.
Suggest a Topic

Have an idea for a future DOT SBIR topic?

Visit
Important Dates and Reminders
# FY 2019 Solicitation Schedule

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2019 Solicitation Opened</td>
<td>February 19, 2019</td>
</tr>
<tr>
<td>Administrative and Technical Questions due</td>
<td>April 3, 2019 @ 5:00 PM ET</td>
</tr>
<tr>
<td>Appendix C Cost Questions due</td>
<td>April 15, 2019 @ 5:00 PM ET</td>
</tr>
<tr>
<td>FY 2019 Solicitation Closes*</td>
<td>April 22, 2019 @ 5:00 PM ET</td>
</tr>
<tr>
<td>Recommendations for Award</td>
<td>No later than July 22, 2019 (90 days from solicitation close)</td>
</tr>
<tr>
<td>Awards Processed</td>
<td>No later than October 22, 2019 (180 days from solicitation close)</td>
</tr>
</tbody>
</table>

*Please allow sufficient time to submit your proposal. The submittal process may take several minutes to complete due to a multi-step process. Applicants are encouraged to submit their offers as early as possible.*
Reminders…

- Review the proposal before submission to ensure:
  - Documents requiring signatures are signed and dated.
  - The research and analytical effort and the PI’s employment status meet eligibility requirements
  - Include supporting documentation for prices proposed.

- Allow sufficient time to submit a proposal. The submittal process may take several minutes to complete due to a multi-step process.

- Double check documents submitted are the correct version.

- Check FAQs on DOT’s SBIR website before submitting questions.

- Submit questions that pertain to the solicitation versus whether an idea is good or bad.
Thank you for your attendance at this pre-offer webinar.

Please submit all questions to DOTSBIIR@dot.gov.