

## COURSE 2, TUTORIAL 8

# ENVIRONMENTAL PROTECTION AGENCY (EPA)



**T**he mission of the Environmental Protection Agency is to protect human health and the environment. Through its SBIR Program, EPA is looking to support the development and commercialization of technologies that support EPA's mission. Solicitation topics are focused on core mission areas and include: Clean & Safe Water; Air Quality; Land Revitalization; Homeland Security; Sustainable Materials Management and Safer Chemicals.

### **A PREFERENCE FOR “PLATFORM” TECHNOLOGIES**

The EPA SBIR program provides a means for small business to participate in addressing the agency's strategic goals. Although the budget for the EPA SBIR program is relatively small, with an average of about \$5M a year, its goal is to contribute solutions that can truly be implemented to solve the priority topics identified in the solicitation. To this end, the EPA wants proposals that are responsive to the solicitation and recommends that applicants conduct some market research

before they apply. The applicant should start by identifying the need, assess if the market opportunity is viable, and then propose an innovative technology solution that can be developed and commercialized to meet this need in a profitable manner. The EPA has a preference for “platform” technologies — that is, solutions that have the potential to address many future applications in addition to the one that is being funded.

## EPA TOPIC AREAS



### EPA SOLICITATIONS

The EPA SBIR program issues contracts. There is one solicitation per year, usually released in June. The time allotted for proposal preparation is short, averaging about 45 days. Phase I awards are for up to \$100,000 for six months of concept development, while Phase II awards are for up to \$400,000 for two years to develop and commercialize the technology. In addition, EPA will provide a \$100,000 match for small businesses that can secure third-party investment of \$100,000 or more for the commercialization of their technology. Through this “Commercialization Option” Phase II offerors must submit documentation showing the receipt of funds from one or more third-party investors to trigger the supplemental funding. Another feature of the EPA SBIR program is that awardees are provided with a technical connection—that is an individual within EPA who has an interest and expertise in your project and can provide insights or guidance from an EPA perspective. The agency also has a strong social media presence and promotes the success of its awardees through multiple communications outlets including the website and newsletters.

In the most recent EPA SBIR solicitation the broad topic areas included: Clean & Safe Water; Air Quality; Land Revitalization; Homeland Security; Sustainable Materials Management and Safer Chemicals. Subtopics under Clean & Safe Water included: monitoring and treatment technologies for water reuse. The subtopics under Air Quality included: air monitoring technology for ethylene oxide; air quality sensors for volatile organic compounds; and innovative technologies for radon mitigation in buildings. Land Revitalization had one subtopic focused on innovative technologies that destroy polyfluoroalkyl substances (PFAS) in soil, sediment, water, and groundwater while the Homeland Security topic focused on long-term disinfectant coatings. Subtopics under Sustainable Materials Management included: innovative technologies to prevent food waste; technologies that will improve the U.S. recycling system; as well as safe building deconstruction tools or safety equipment. A related subtopic is innovative materials that improve energy efficiency and which have reduced embodied impacts. The Safer Chemicals topic focused on new approach methodologies (NAMs) to reduce, refine, or replace animal testing and cleaner manufacturing of coloration techniques. While the broader topics will remain similar from year to year, the specific subtopics will change.

## EPA SUCCESS STORIES

Examples of successful awardees who have brought their technologies to market include **ASAT, Inc.**, which developed the Integrated Stove and the Jet-Flame, a clean-burning biomass heating/cooking stove with thermo-electric generation. The popular Jet-Flame, an \$11 combustion chamber accessory reduces PM2.5 by 80%. The EPA SBIR funding allowed ASAT, Inc. to succeed in making international sales and its products are now found in more than 30 countries. As a part of the project, ASAT, Inc. partnered with the Gates-funded Global Health Laboratories to invent and sell the Jet-Flame. Another successful company is **Microvi Biotech**. The company created Provi™, which is an innovative process that uses microorganisms to remove phosphorus and ammonia from municipal wastewater and recover phosphorus as a valuable by-product. Funding from EPA SBIR helped Microvi develop and commercialize their technology, which resulted in third-party investments for collaborative projects with international water utility companies.



Dean Still, Executive Director of ASAT, Inc. (Aprovecho Research Center).

## COMMERCIALIZATION OF SPONSORED RESEARCH

EPA wants to see these technologies implemented so that they can advance and have environmental impact so there is a focus on commercialization. Commercialization assistance is provided to Phase I awardees in addition to their award and to Phase II awardees as part of their award. During the past three years EPA made an average of 22 Phase I awards per year. It is important to note that other agencies also fund environmental technologies and that it is wise to consider other agencies as possible funding sources including: National Science Foundation; the National Oceanic and Atmospheric Administration; the United States Department of Agriculture; the National Institute of Environmental Health Sciences at HHS; and the Department of Energy.

If you are interested in learning more about the EPA SBIR program, feel free to contact April Richards, the Program Manager at the EPA SBIR Program Office. Email: [richards.april@epa.gov](mailto:richards.april@epa.gov) | Phone: (202) 564-6462. Also, please sign up for the SBIR Listserv to get notified as soon as the annual topics are released (along with other EPA news and opportunities for small businesses). SBIR Listserv: <https://www.epa.gov/sbir/sbir-listserv>.

**FOR MORE INFORMATION, PLEASE CONTACT  
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