EPA Announces Over $3 Million in Funding to Small Businesses to Develop Environmental Technologies

WASHINGTON – Today, the U.S. Environmental Protection Agency (EPA) announced $3,089,894 in funding to 30 American small businesses to develop novel technologies to address pressing environmental and public health problems. These companies are employing innovative approaches like an automated waste sorting system at the point of disposal; a system that employs technology to capture and destroy airborne bacteria and viruses; and a monitoring system that can map methane concentrations and emissions over large areas.

"As emerging technologies continue to rapidly change the world, our nation's small businesses are at the forefront of harnessing these technologies to address today's environmental challenges," **said Wayne Cascio, Acting Principal Deputy Assistant Administrator in EPA's Office of Research and Development**. "We are excited to watch these small companies bring innovative ideas to the marketplace and help revolutionize improving our environment, public health and the economy."

EPA's Small Business Innovation Research (SBIR) Program runs an annual, two-phase competition for funding. The 30 small businesses below are receiving up to $100,000 of Phase I funding for six months for "proof of concept" of their proposed technology. Companies that complete Phase I can then apply to receive Phase II funding of up to $400,000 to further develop and commercialize their technology.

The following small businesses received EPA SBIR Phase 1 awards:

Clean & Safe Water

- **Infinite Cooling (Somerville, Mass.)** For a technology to recover water from cooling tower plumes using electric fields.
- **Michigan Aerospace Corporation (Ann Arbor, Mich.)** For a light detection and ranging (LIDAR) technology to improve the operation of stormwater management infrastructure.
- **Quantitative BioSciences, Inc. (San Diego, Calif.)** For a smart-sensor approach to automate and optimize agricultural water reuse.
- **Triangle Environmental Health Initiative (Durham, N.C.)** For a compact, modular system for rapid, fully automated treatment of domestic greywater for non-potable onsite reuse.
- **Triple Ring Technologies (Newark, Calif.)** For a portable environmental sensor for rapid microplastic isolation and identification to better understand microplastic pollution.
- **Unearth Technologies Inc. (Seattle, Wash.)** For a geospatial data platform for mapping and inspecting underground infrastructure to increase the efficiency of replacing lead service lines.

Air Quality

- **Entanglement Technologies, Inc. (San Bruno, Calif.)** For a platform for low-level, rapid analysis and detection of ethylene oxide in ambient air.
- **Freedom Photonics (Santa Barbara, Calif.)** For a novel spectroscopy system for volatile organic compound (VOC) monitoring to detect concentrations of air toxics in real-time.
- **Ohio Lumex Company, Inc. (Solon, Ohio)** For a sorbent trap method for continuous emissions monitoring of metal hazardous air pollutant (HAP) emissions.
- **Physical Sciences Inc. (Andover, Mass.)** For a laser technology for continuous quantitative methane emission monitoring of oil and gas storage tanks.
- **Spectral Sensor Solutions LLC (Albuquerque, N.M.)** For a continuous monitoring system to map the spatial distribution of methane concentration and emissions over large areas.
- **TDA Research, Inc. (Wheat Ridge, Colo.)** For a novel, low-cost radon mitigation system using state-of-the-art metal-organic framework sorbent.

Homeland Security

- **Sonata Scientific LLC (Danbury, Conn**.) For an air purifier for HVAC systems that employs photocatalytic technology to capture and destroy airborne bacteria and viruses.
- **TDA Research, Inc. (Wheat Ridge, Colo**.) For a high-performance air treatment system that uses a photocatalytic process to destroy biological contaminants.
- **XCMR Inc. (Penn Valley, Pa.)** For a device which utilizes Far Ultraviolet-C light to inactivate pathogens in the air and on surfaces for respiratory protection from infectious diseases.

Sustainable Materials Management

- **Cinterest LLC (East Rochester, N.Y.)** For a low-carbon wallboard to offer enhanced insulation, soundproofing and humidity control compared to current drywall options.
- **CleanRobotics, Inc (Longmont, Colo.)** For an automated trash sorting system at the point of disposal to improve the collection and sorting of recyclables.
- **Ecotune, Inc. (Irvine, Calif.)** For a fully compostable packing film made from renewable resources using green chemistry and non-toxic production processes.
- **GreenLifeTech Corporation (Banner Elk, N.C.)** For an automatic food preservation system for the retail environment to prevent food waste.
- **Imvela Corp (Brooklyn, N.Y.)** For a system using novel biopreservatives to decrease food waste by improving the shelf life of dairy products.
- **IsoTruss Inc. (Provo, Utah)** For a reinforced concrete foundation for telecommunication towers to increase resiliency to natural disasters.
- **Kamilo, Inc. (San Francisco, Calif.)** For a recycling supply chain measurement system to track and increase the value of recovered plastic, stimulating greater investment in collection and sorting.
- **KLAW Industries LLC (Binghamton, N.Y.)** For a novel process to reuse wasted glass for high-performance, low-carbon concrete.
- **Rheaply, Inc. (Chicago, Ill.)** For a software technology to empower material reuse with construction stakeholders and decarbonization efforts related to each transaction of reclaimed materials.
- **USEFULL Inc. (Boston, Mass.)** For a technology using reusable containers designed to empower corporations, colleges, and closed-loop communities to eliminate single-use food and beverage products.
- **Veriflux Corp (Washington, DC)** For a data platform to trace waste across waste supply chains to identify new opportunities for reuse, and to enforce compliance with environmental policies.

- **Zabble Inc. (Walnut Creek, Calif.)** For a campaign management platform to create a zero-waste blueprint for the healthcare industry.

Safer Chemicals

- **Cypris Materials, Inc. (Berkeley, Calif.)** - Fora color platform technology to prevent undesirable byproducts and to remove environmental costs associated with paint and ink.
- **Geometric Data Analytics, Inc. (Durham, N.C.)** For a technology to deliver wind velocity and expected drift forecasts to better plan pesticide application, reduce the incidence of off-target drift, and raise awareness of drift potential.
- **Kebotix, Inc. (Cambridge, Mass**.) - For use of a machine-learning platform to develop pigment alternatives that do not produce polychlorinated biphenyls (PCBs) and other toxic byproducts.

Risk Assessment

- **InferLink Corporation (El Segundo, Calif.)** For a software system for automated, systematic reviews of the scientific literature on chemical risks.

EPA is one of 11 federal agencies that participate in the Small Business Innovation Research (SBIR) Program, a competitive program that supports small businesses in the development and commercialization of technological solutions. This program stimulates high-tech innovation while encouraging small businesses to meet the country's research and development needs.

To learn more about EPA's SBIR Phase I winners, please visit: https://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/recipients.sort/rfa_id/689/sortitem/institution/direction/asc/records_per_page/ALL

To learn more about EPA's SBIR program, please visit: https://www.epa.gov/sbir

Learn more about the Federal SBIR Program: www.SBIR.gov