



Agency Topic Areas of Interest Summer Session July 17, 2014



Department of Homeland Security (DHS)

As a contracting organization, our SBIR solicitations include the topics for which we want proposals. We won't have a solicitation open in July, but in general, the DHS S&T Directorate is interested in the following: technologies and knowledge products to support the homeland security enterprise. The items below are opportunities currently published in the S&T Directorate's long range BAA (Broad Agency Announcement):

- Border and maritime security technologies;
- Chemical and biological defense technologies;
- Cyber security and information assurance solutions to secure the Nation's current and future cyber and critical infrastructures against persistent threats and dynamic attacks;
- Explosive countermeasure technologies, including technologies to detect, mitigate and respond to explosive threats;
- Solutions that enable the homeland security enterprise and community of users to enhance preparedness, mitigate hazards, ensure effective response, execute rapid recovery, minimize risks to critical infrastructure and impact on the societal resilience and economy; and
- Technologies for first responders.

Topics from their last closed solicitation:

- H-SB014.2-001** Decontamination Technologies for Biological Agents
- H-SB014.2-002** Automatic Detection and Patching of Vulnerabilities in Embedded Systems
- H-SB014.2-003** Development of Cost-Effective Iterative Reconstruction Computing Platforms for Computed Tomography (CT)-based Explosive Detection Equipment
- H-SB014.2-004** Radiant Laser Exposure Monitoring for Nominal Hazard Zone (NHZ) Evaluation
- H-SB014.2-005** Status Indicator for Downed Power Lines
- H-SB014.2-006** Field Detection and Analysis for Fire Gases and Particulates



Environmental Protection Agency (EPA)

- Water (drinking water and wastewater treatment and resource recovery)
- Air & Climate (low cost sensors, control, process optimization)
- Green Manufacturing
- Waste (construction & demolition, food)
- Homeland Security (drinking water)



Department of Education (ED)

- At ED/IES SBIR the focus is on education technology products to help support students learning and teacher practice.
- At ED/NIDRR SBIR the focus is on products to support individuals with disabilities across all areas of life.



National Oceanic & Atmospheric Administration (NOAA)

Topics from their last closed solicitation:

- Resilient Coastal Communities and Economies
- Healthy Oceans
- Climate Adaptation and Mitigation
- Weather-Ready Nation



National Aeronautics and Space Administration (NASA)

Topics from their last closed solicitation:

NASA has Mission Directorates:

Aeronautics Research

- Aviation Safety, Unmanned Aircraft Systems
- Air Vehicle Technology
- Ground and Flight Test Techniques and Measurement

Human Exploration and Operations

- In-Situ Resource Utilization
- Space Transportation
- Extra-Vehicular Activity Technology
- Lightweight Spacecraft Materials and Structures
- Autonomous & Robotic Systems
- Entry, Descent, and Landing Technologies
- Space Communications and Navigation (SCaN)

- Ground Processing & ISS Utilization ([PDF](#))
- Radiation Protection
- Human Research and Health Maintenance
- Non-Destructive Evaluation

Science

- Sensors, Detectors and Instruments (Lidar, Microwave, Remote Sensing, Visible, IR, Far IR, UV, X-Ray, Gamma-Ray, Cosmic Ray, Particles and Field Sensors Instrument Enabling, lunar, planetary in-situ sensors, airborne measurement systems, surface and sub-surface, atomic)
- Advanced Telescope Systems (astronomical, glare suppression, optical structures, metrology optical systems, optical surfaces)
- Spacecraft and Platform Subsystems (power Generation, conversion, propulsion, power, unmanned aircraft sounding rocket, guidance navigation a& control, terrestrial & planetary balloons, thermal control)
- Robotic Exploration Technologies (entry, descent, landing, robotic mobility, manipulation, spacecraft, extreme environments)
- Information Technologies (large scale numerical, earth science algorithms and tools, integrated modeling, fault management)

Space Technology

- Space Technology for Cross-Cutting Applications (Battery, Nuclear Power, Propulsion & Power, PhotoVoltaic)
- Cross Cutting Advanced Manufacturing Processes for Large Scale Bulk Metallic Glass Systems for Aerospace Applications



Department of Transportation (DOT) – (NAICS CODE: 541712)

- Safety systems and devices for surface transportation, aviation, and pipelines;
- Intelligent transportation systems (ITS); and
- Highway-based technologies and green technologies related to the regulatory mission of DOT's modal administrations

These are part of their last, now closed solicitation:

- 14.1-FH1:** Development of Prestressed Concrete Nondestructive Evaluation (NDE) Inspection Procedures
- 14.1-FH2:** Personalized Driving Data for Insurance Discounts & Public Benefits
- 14.1-FH3:** Suppressing Utility Problems - Protection via Robotic Engineering to the Sub-Surface
- 14.1-FH4:** STEM Education – Increasing awareness about Intelligent Transportation Systems and Connected Vehicle Technologies for High School Students
- 14.1-FH5:** Visually unobtrusive traffic monitoring for National Park Service Parkways
- 14.1-FH6:** Corrosion Resistant Prestressing Strand for Prestressed Concrete Bridges
- 14.1-FR1:** Lightweight, Portable System for Mid-Chord Offset Measurement of Railroad Rails
- 14.1-FR2:** Wheel Load Cycle Tag for Rail
- 14.1-FR3:** Easy Access to Freight Locomotives



United States Department of Agriculture
National Institute of Food and Agriculture

United States Department of Agriculture National Institute of Food and Aquaculture

Derived from the 2014 solicitation:

USDA has 10 primary areas of interest:

- 8.1 Forests and Related Resources** – Climate change, Utility of Forest-Grown Material, Urban Forestry, Management of Wildfires, Sustainable Bioenergy and Value-Added Products
- 8.2 Plant Production and Protection** – Biology – Plant Improvement, Floriculture Production, Dedicated Energy Crops, Pollinators & Crop Production, Plant Protection Abiotic/Biotic Stresses
- 8.3 Animal Production and Protection** – Production Efficiency, Safety/Quality of End Products, Animal Health & Well-being, Alternative Animal Production Systems, Mitigate Impacts of Animal Aquaculture on the National Environment
- 8.4 Air, Water and Soils** – Water Quality and Conservation, Irrigation, Soil Erosion, Soil Quality, Air Resources
- 8.5 Food Science and Nutrition** – Sensor Technologies, Food Processing & Packaging, Affordable Food Ingredients/Formulations, Interactive Programs for Nutritional Awareness in Children
- 8.6 Rural & Community Development** – Efficiency & Effectiveness of Local Governments, Public & Private Institutions, Enhance Environment & Promoting Economic Development, Rural Communities and Hazard Vulnerability, Needs of Youth and Low-income Sector in Rural Population, Opportunities for Employment and Income Generation
- 8.7 Aquaculture** – Reproductive Efficiency, Genetic Improvement, Integrated Aquatic Animal Health Management, Production Systems & Management Strategies, Plant Production Systems
- 8.8 Biofuels and Bio based Products** – Drop-in Biofuels, biofuels based on Animal/carcass Waste, Non-food Biobased Products from New Industrial Crops, Manufacture of Biobased Plastics, and Energy Efficient Biobased Materials
- 8.12 Small and Mid-Size Farms** – New Agricultural Enterprises, New Marketing Strategies, Farm Management, Natural Resources & Renewable Energy, Educational Outreach, Urban Farming
- 8.13 Plant Production and Protection** – Engineering – Crop Production Methods/Strategies, Plant Protection, Energy Conservation, plus special interest topics.



Joe Migliaccio is MTI's Director of Business Development and is responsible for identifying early and later-stage companies with innovative technology and to familiarize them with the funding opportunities at MTI. He is familiar with all MTI programs including TechStart Grants, Seed Grants, Development Loans, Equity funding, and SBIR/STTR Phase 0 KickStarter Grants. Book a meeting with Joe to learn how your idea may fit into MTI's portfolio of opportunities.



Kris Burton is the Director of Technology Commercialization for the Department of Industrial Cooperation at the University of Maine. Kris focuses on transferring knowledge and technology from the university to organizations and companies that can put it to profitable use. Contact Kris if your company has an interest in commercializing university technology, using university facilities, or collaborating with the university to complete a research project.