National Aeronautics and Space Administration

ARTEMIS

NASA Small Business Technology Transfer (STTR) Program Overview

Space Technology Mission Directorate (STMD)

Damian Taylor | September 17, 2020

SBIR·STTR America's Seed Fund™ POWERED BY NASA

The SBIR and STTR Programs

Small Business Innovation Research (SBIR)

- A set-aside program for small business to engage in Federal R&D with potential for commercialization
- Currently, 3.2% of Federal agencies Extramural R&D budgets >$100M per year

Small Business Technology Transfer (STTR)

- A sister set-aside program to facilitate cooperative R&D between small business concerns and U.S. research institutions (Ris) with potential for commercialization
- Currently, 0.45% of the extramural research budget for all agencies with a budget >$1B per year

SBIR + STTR Programs

Department of Defense (DoD)

Department of Health and Human Services (HHS)

Department of Energy (DoE)

National Aeronautics and Space Administration (NASA)

National Science Foundation (NSF)

SBIR Program Only

Department of Agriculture (USDA)

Department of Education (DoEd)

Department of Transportation (DoT)

Environmental Protection Agency (EPA)

Department of Homeland Security (DHS)

Department of Commerce (DoC)

NASA SBIR/STTR MISSION

Create opportunities through SBIR/STTR awards to leverage small business knowledge and technology development for maximum impact and contribution

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NASA SBIR/STTR VISION

Empower small businesses to deliver technological innovation that contributes to NASA’s missions, provides societal benefit, and grows the U.S. economy

NASA SBIR/STTR Program

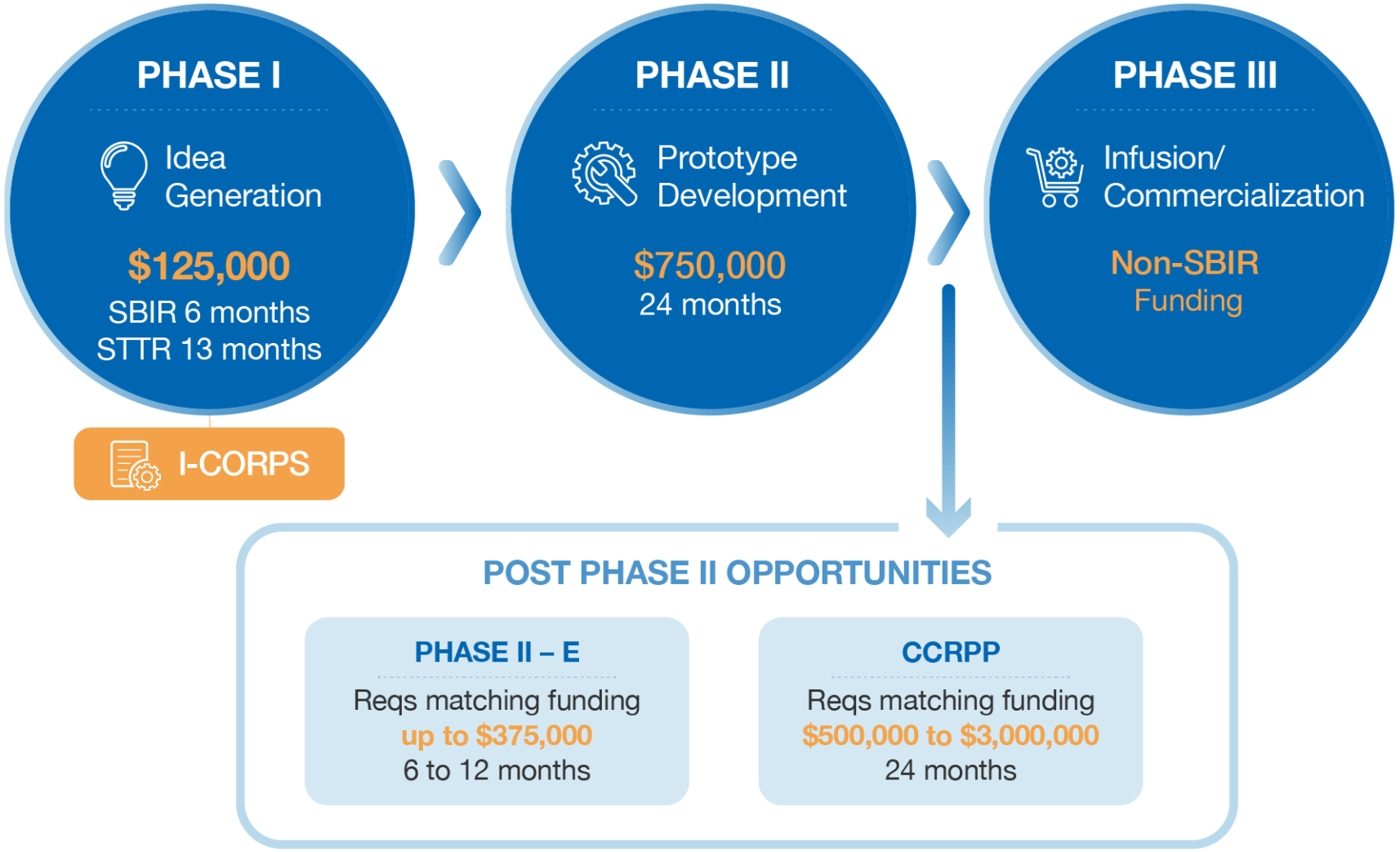
As a program under the Space Technology Mission Directorate, the NASA SBIR/STTR program funds the research, development, and demonstration of innovative technologies that fulfill NASA needs, including those needed for the **Artemis** mission.

NASA's SBIR/STTR program has **awarded more than $3.3 billion** to research-intensive American small businesses

Engineers and scientists from **more than 12,000** small businesses in all 50 States, DC and Puerto Rico have participated

NASA SBIR/STTR Opportunities

NASA SBIR/STTR PHASES



Recent Program Awards

NASA SBIR 2019 Phase II Awards

- 5 May 2020, NASA awarded $104 Million to US Small Businesses for space technology development
- Selected 139 proposals from 124 U.S. small businesses from 31 states and the District of Columbia to receive Phase II contracts
- These proposals support NASA's future space exploration missions, while also benefiting the U.S. economy

NASA SBIR/STTR 2020 Phase I Awards

- 30 June 2020, NASA Invests $51 Million in Innovative Ideas from US Small Businesses
- Awarded 312 small businesses and Ris from 44 states a total of $51 million in Phase I contracts
- Will help advance the types of capabilities needed for future missions, including our efforts to send American astronauts to the Moon, and then on to Mars, while also providing a long-term boost to the U.S. economy.

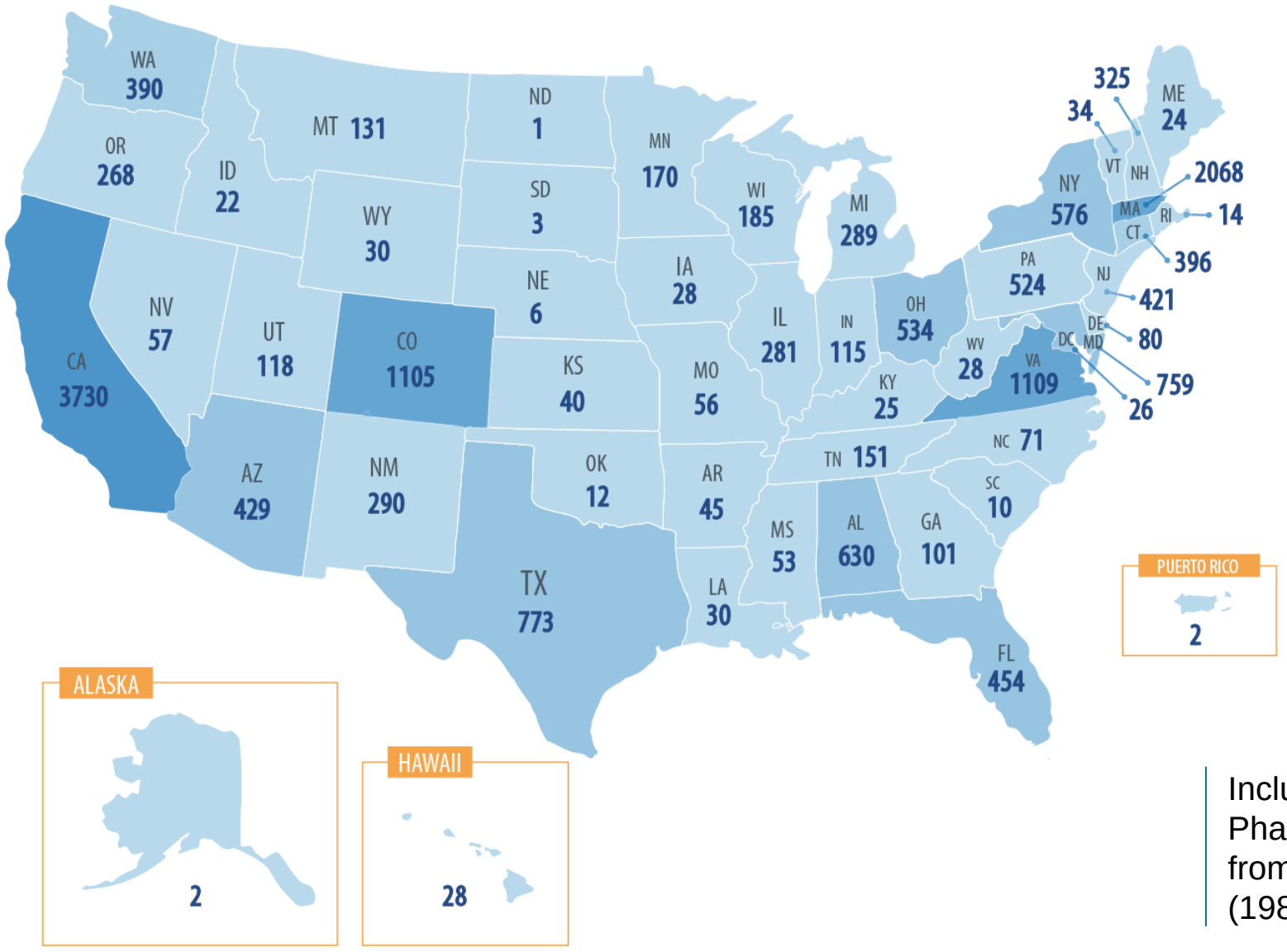
FY20 Awards/Investment Summary (Sept. 2020)

Annual Awards Budget: ~ $211 million

Program	# of Selections	$ Value
SBIR 2020 Phase I (June 2020)	351	$43,791,521
STTR 2020 Phase I (June 2020)	58	$7,237,780
STTR 2018 Phase II (November 2019)	21	$15,767,512
SBIR 2019 Phase II (May 2020)	140	$104,516,157
I-Corps (August 2020)	27	$267,895
Phase II-E	43	$11,709,392
CCRPP	8	$6,760,723
Sequentials (July 2020)	4	$21,283,808
TOTAL SBIR/STTR Funding:	**652**	**$211,334,788**

SBIR is = to 3.2% of extramural R&D | STTR is = to 0.45% of extramural R&D

Total Awards by State



Includes SBIR and STTR Phase I and Phase II awards from first Program award (1983) through July 2020.

Why Participate in STTR?

For the Research Institutions

- Opportunity to create/inspire entrepreneurship as a vital part of the educational experience
- Another opportunity to access federal funding for research
- An opportunity sometimes to get RI Intellectual Property (IP) involved in the project and licensed
- Another means for visibility in the research community, generate peer-reviewed pubs., etc.

For the Small Businesses

- Opportunity to leverage expertise and innovative ideas from professors/research staff/students
- Opportunity to leverage specialized facilities and experimental equipment at the RIs when often small businesses may not be able to afford such facilities on their own
- Opportunity to create pipeline of usable talent for company from the RIs
- Develop working relationship & credibility with government R&D
- Fosters partnerships with large corporations and academia
- Provides recognition and visibility for the business
- Participation attracts venture capital and other funding sources

Intellectual Property

Patent Rights

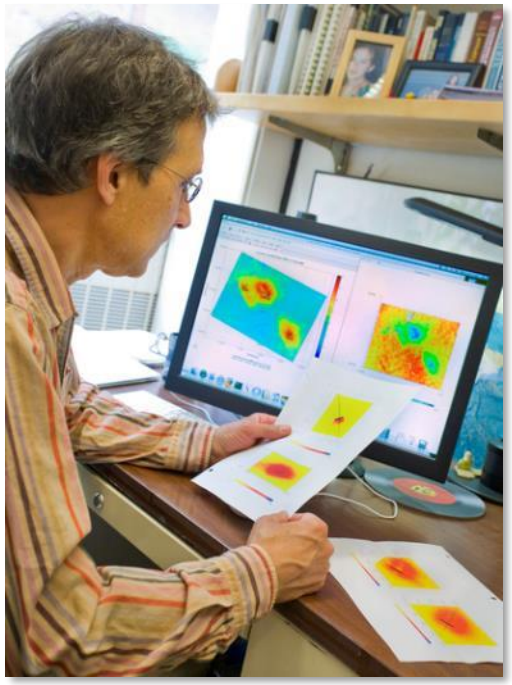
Small business concerns normally retain the principal worldwide patent rights to any invention developed with Government support

Government Use

The Federal Government receives a royalty-free license for Federal Government use

U.S. Patent and Trade Office
http://www.uspto.gov/

Data Protection



Protection Period

Data generated from your R/R&D is protected from public disclosure for no less than 20 years from award date (Phase I, Phase II, or federally funded Phase III)

Government Use

The Government retains a royalty-free license for Government use of any technical data delivered under an SBIR award, whether patented or not

National Science Foundation (NSF) Space Topic

NSF Space Topic

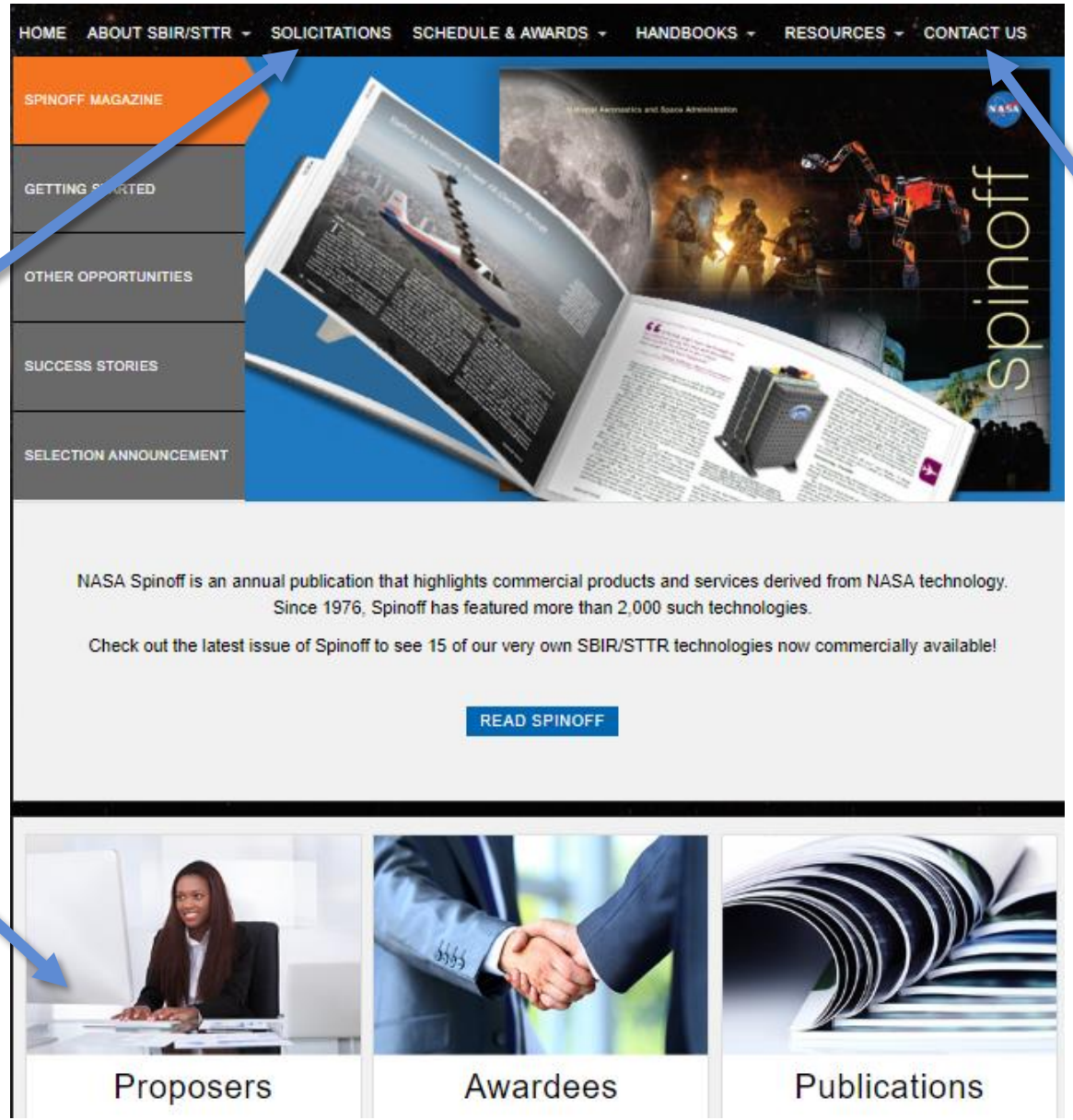
- NSF is including a Space topic in its SBIR/STTR Program
- Given different program goals and criteria, it's likely that one agency would be a much better fit for any specific project.
- Learn more about the differences between the NSF SBIR/STTR and NASA SBIR/STTR Programs at:

https://sbir.gsfc.nasa.gov/content/nsf-sbirsttr-space-topic-what-you-need-know

Program Website | sbir.nasa.gov

Research NASA's Needs
Annual Solicitations including past years

Looking to Join the Program?
- Program Basics
- Forms Library
- Model Contract
- In-depth Training Resources and FAQs



Contact the Program
SBIR/STTR Helpdesk and Program Points of Contact

Learning About NASA's Needs

Focus Areas

NASA's research subtopics are organized by "Focus Areas" that group interests and related technologies.

- **Identify** the Area(s) closest to your innovation/idea
- **Go** to our website to research
- **Prepare to write** a proposal tailored to NASA's needs

https://sbir.nasa.gov/solicitations

2020 Focus Areas (FA)	
FA 1: In-Space Propulsion Technologies	**FA 13:** Information Technologies for Science Data
FA 2: Power Energy and Storage	**FA 14:** On-orbit Servicing, Assembly, and Manufacturing (OSAM)
FA 3: Autonomous Systems for Space Exploration	**FA 15:** Materials, Materials Research, Structures, and Assembly
FA 4: Robotic Systems for Space Exploration	**FA 16:** Ground and Launch Processing
FA 5: Communications and Navigation	**FA 17:** Thermal Management Systems
FA 6: Life Support and Habitation Systems	**FA 18:** Air Vehicle Technology
FA 7: Human Research and Health Maintenance	**FA 19:** Integrated Flight Systems
FA 8: In-Situ Resource Utilization	**FA 20:** Airspace Operations and Safety
FA 9: Sensors, Detectors and Instruments	**FA 21:** Small Spacecraft Technologies
FA 10: Advanced Telescope Technologies	**FA 22:** Low Earth Orbit Platform Utilization and Microgravity Research
FA 11: Spacecraft and Platform Subsystems	**FA 23:** Digital Transformation for Aerospace
FA 12: Entry, Descent and Landing Systems	**FA 24:** Dust Mitigation

Submission Checklist

- Submit proposal prior to the deadline
- Perform the “Endorse Proposal” step, which is the final step in the submissions process
- Make sure you meet the format requirements (margin and font size, page limitation)
- Make sure you, as the RI, register correctly (STTR Requirement)
  - For STTR proposals the RI needs to endorse the Research Agreement prior to the proposal being complete and submitted. The RI will need to:
    - Create an account in the Proposal Submission EHB
    - Register under the firm using its EIN, State, and PIN so the RI is attached to the proposal correctly
    - Choose the RI option at the bottom of the page when entering your name, email, phone, etc.

SAVE THE DATE. OCTOBER 20-22, 2020
Hosted by the NASA SBIR/STTR Program

Innovation & Opportunity

VIRTUAL CONFERENCE

Propelling your business. Transitioning your technology.

The Innovation & opportunity conference provides you with resources, engagement opportunities, and actionable next steps towards transitioning your technology — whether you are just starting your SBIR/STTR journey or ready for a Phase III.

NASA SBIR/STTR PROGRAM

2021 PHASE I SOLICITATION

OPENING SOON

November 9, 2020 – January 8, 2021

Questions?

Visit our Website
www.SBIR.NASA.gov

Sign up for our Newsletter
https://sbir.nasa.gov/info

Contact the Help Desk
301.937.0888