OSBP Learning Series Webinar

National Aeronautics and Space Administration

NASA

NASA Office of Small Business Programs Learning Series Presents:

NASA Space Technology Mission Directorate on Early Stage Innovations and Partnerships: Small Business Innovation Research and Additional Program Highlights

August 16, 2023 at 1 p.m. ET (webinar).

Register today at https://bit.ly/43VLmyV.

OFFICE OF **SMALL BUSINESS** PROGRAMS
...where small business makes a **BIG** difference

www.nasa.gov

Housekeeping

- If you have any questions during the presentation, please enter them into the Q&A Box.
  - **NOTE:** If possible, include the speaker whom your question is directed if multiple speakers are presenting.
- Other comments, like technical difficulties, please input them in the Chat Box.
- We will have a formal Q&A after the final presenter concludes, using questions from the Q&A Box.
- Please keep your computers on mute when not speaking.
- The presentation WILL be recorded. Attendees will receive an email once those materials are made available online.
- Please fill out the survey that will be available in the Q&A box during the presentation.

Do Your Homework!

- **Start** with a Small Business Specialist (SBS) at each NASA Center
  - Build relationships with the Center SBS and the Industry Small Business Liaison Office (SBLO)
- Learn about NASA 's various missions
  - Each NASA Center has different Missions
  - Varied mix of products and services
- Respond to Sources Sought Synopses / Request
- Use Small Business resources:
  - Agency Acquisition Forecast
  - Procurement Technical Assistance Center (PTAC)
  - Small Business Administration (SBA)
  - Trade associations
  - Outreach Events

EXAMPLE

OSBP OFFICE OF SMALL BUSINESS PROGRAMS ...where small business makes a BIG difference

17

Participants (322)

Search

Panelist: 22

Attendee: 300 (7 displayed)

Chat

Hi Truphelia -- will you please add Vikram from SpaceX to the panelist group? He's logged in as "V Kothari (SPACEX)"

To: All Attendees

Enter chat message here

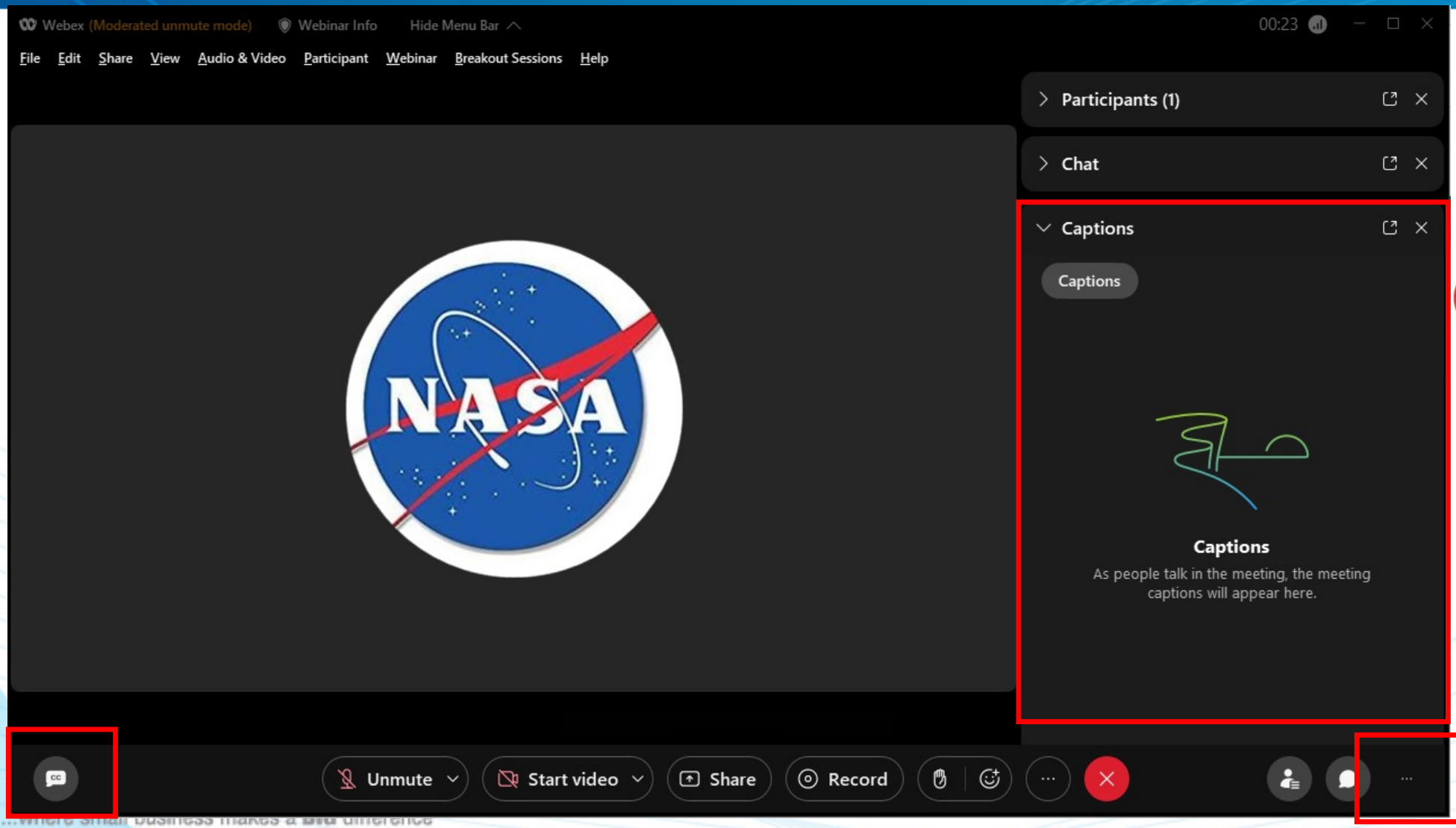
Q&A

Polling

Unmute Start video Share ... Participants Chat ...

3

Webex Closed Captioning is Available!



Select CC to enable

Select … to turn on the Captions panel to see speakers in sequence

Polling Questions

1. How did you learn about this webinar?

a. OSBP Website
b. Constant Contact
c. Social Media
d. Eventbrite email
e. Other

2. Is this the first webinar hosted by the NASA Office of Small Business Programs that you have attended?

a. YES
b. NO

Polling Questions Cont.

3. **Which of the following classifications applies to your institution/organization/company?**

   a. Small Business (SB)
   b. Large Business (LB)/Other than Small Business (OTS)
   c. Women-Owned Small Business (WOSB)
   d. Economically Disadvantaged Women-Owned Small Business (EDWOSB)
   e. Veteran-Owned Small Business (VOSB)
   f. Service-Disabled Veteran-Owned Small Business (SDVOSB)
   g. Historically Underutilized Business Zone (HUBZone)
   h. 8(a) Business Development Program Participant (8a)
   i. Historically Black Colleges or Universities (HBCU)
   j. Minority-Serving Institution (MSI)
   k. Nonprofit or Community-based Organization
   l. Federal Government Agency/Department
   m. State or Local Government Agency/Department
   n. Small Disadvantage Business (SDB)
   o. Other

Polling Questions Cont.

4. Have you done business with NASA? (More than one answer can be applicable)

a. Prime Contractor
b. Subcontractor
c. NASA Mentor-Protégé Program
d. Space Act Agreement
e. Grant or Cooperative Agreement Recipient
f. I have not done business with or received funding from NASA

5. What are some of the barriers to entry when doing business with NASA?

Our Mission

The mission of the NASA Office of Small Business Programs is to promote and integrate small businesses into the industrial base of contractors and subcontractors that support the future of space exploration, scientific discovery, and aeronautics research.

About the NASA Office of Small Business Programs

- NASA's Office of Small Business Programs (OSBP) primary mission since its inception has been to increase the representation of small businesses in NASA's contracting efforts.

- Headquartered in Washington, D.C., OSBP is under the leadership of Associate Administrator Glenn A. Delgado and Deputy Associate Administrator Robert Medina.

  - **INCLUSION -** OSBP efforts encompass all federally recognized socio-economic small business categories and we work hard to make sure each type of business gets a fair chance to work with NASA.

  - **GROWTH -** Since 1979, OSBP has grown from only 4 civil servants and 3 contractors, to over 21 civil servants and over 6 support contractors -- all of which are small businesses.

  - **ADVOCACY -** OSBP continues to advocate for small businesses and amplify the important role they play in supporting NASA's mission to explore the universe.

  - **EDUCATION -** The NASA OSBP webinar series offers in-depth training relevant to small businesses; and provide the opportunity to ask questions directly to key points of contacts at the Agency.

Meet the Speaker

Maggie Yancey
Entrepreneurship Lead
NASA Science and Space Technology Mission Directorates

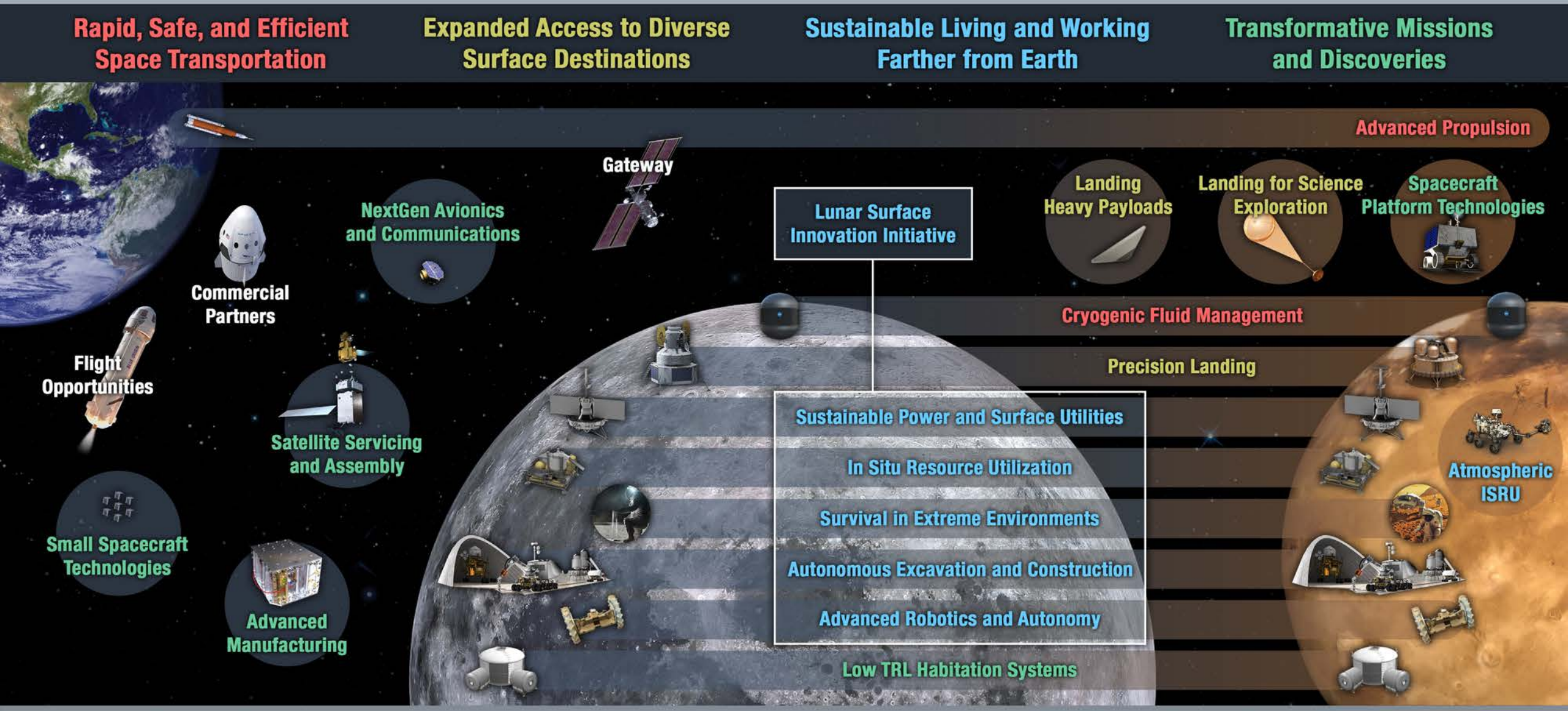
Maggie Yancey is the Entrepreneurship Lead for NASA's Science (SMD) and Space Technology Mission Directorates (STMD), she is currently working to advance commercialization opportunities for current and future NASA entrepreneurs in academia. Before NASA, Maggie was at the U.S. Department of Energy in the Wind Energy Technologies Office and lead the Community Impacts Research and Outreach portfolio working on climate change challenges connecting small businesses, entrepreneurs, and communities to wind energy innovation opportunities on both land and water for the U.S. She started her Federal career as a 2015 Presidential Management Fellow.

NASA OSBP Briefing

Space Technology Mission Directorate

August 16, 2023

Ensuring American Global Leadership in Space Technology



Technology Drives Exploration

SPACE TECHNOLOGY PORTFOLIO

EARLY STAGE INNOVATION AND PARTNERSHIPS

- Early Stage Innovation
  - Space Tech Research Grants
  - Center Innovation Fund
  - Early Career Initiative
  - Prizes, Challenges & Crowdsourcing
  - NASA Innovation Advanced Concepts
- Technology Transfer

SBIR/STTR PROGRAMS

- Small Business Innovation Research
- Small Business Technology Transfer

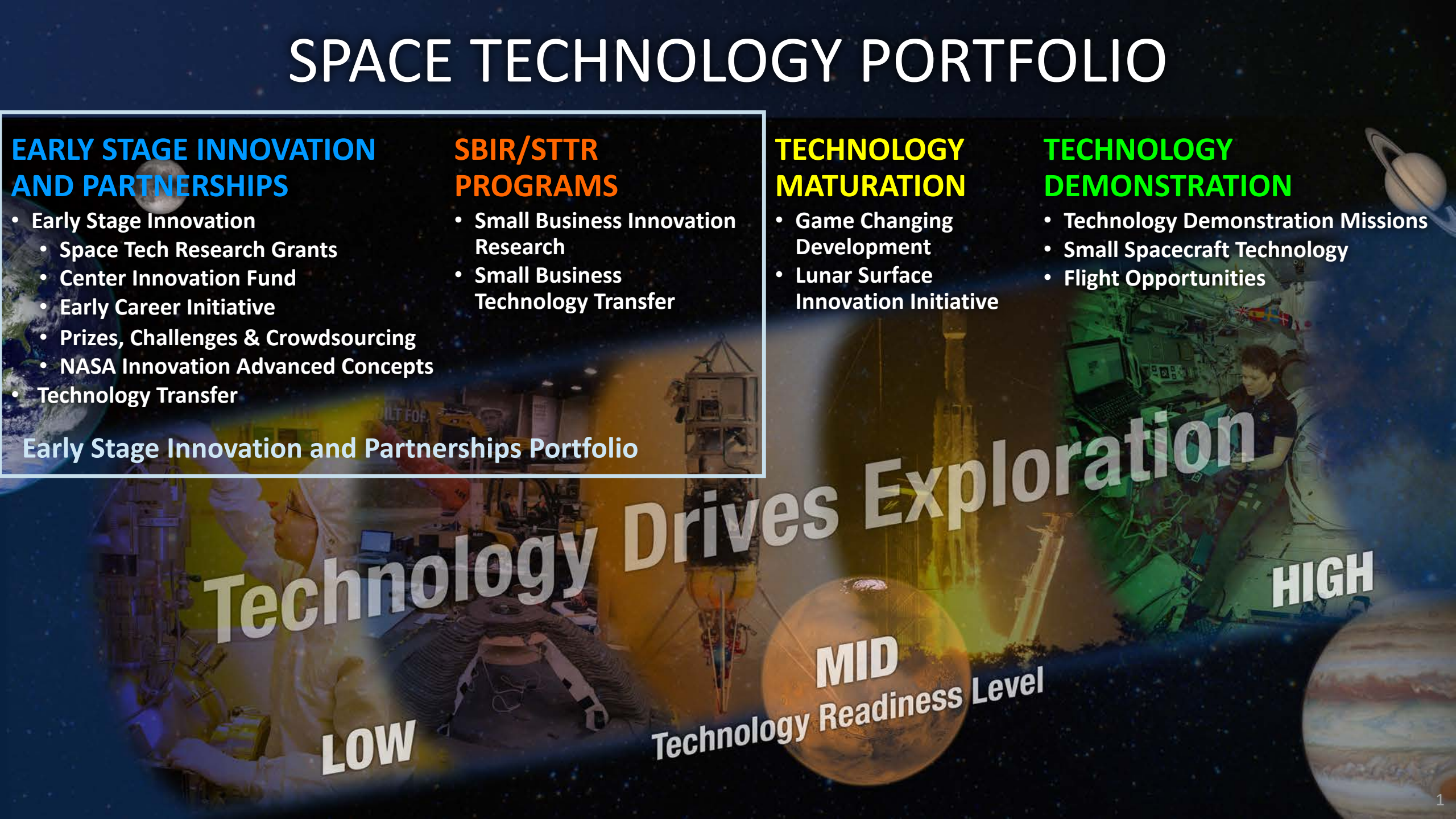
TECHNOLOGY MATURATION

- Game Changing Development
- Lunar Surface Innovation Initiative

TECHNOLOGY DEMONSTRATION

- Technology Demonstration Missions
- Small Spacecraft Technology
- Flight Opportunities

Early Stage Innovation and Partnerships Portfolio



STMD Strategic Framework

Read more at techport.nasa.gov

...sites, and transfers revolutionary, high pay-off space technologies, driven by diverse ideas

Ensuring American global leadership in Space Technology

- Advance US space technology innovation and competitiveness in a global context
- Encourage technology driven economic growth with an emphasis on the expanding space economy
- Inspire and develop a diverse and powerful US aerospace technology community

Thrusts	Outcomes	Primary Capabilities
Transforming Space Missions		
Go Rapid, Safe, and Efficient Space Transportation	• Develop nuclear technologies enabling fast in-space transits. • Develop cryogenic storage, transport, and fluid management technologies for surface and in-space applications. • Develop advanced propulsion technologies that enable future science/exploration missions.	• Nuclear Systems • Cryogenic Fluid Management • Advanced Propulsion
Land Expanded Access to Diverse Surface Destinations	• Enable Lunar/Mars global access with ~20t payloads to support human missions. • Enable science missions entering/transiting planetary atmospheres and landing on planetary bodies. • Develop technologies to land payloads within 50 meters accuracy and avoid landing hazards.	• Entry, Descent, Landing, & Precision Landing

Live
Sustainable Living and Working Farther from Earth
	• Develop exploration technologies and enable a vibrant space economy with supporting utilities and commodities
	  • Sustainable power sources and other surface utilities to enable continuous lunar and Mars surface operations.
	  • Scalable ISRU production/utilization capabilities including sustainable commodities on the lunar & Mars surface.
	  • Technologies that enable surviving the extreme lunar and Mars environments.
	  • Autonomous excavation, construction & outfitting capabilities targeting landing pads/structures/habitable buildings utilizing in situ resources.
	• Enable long duration human exploration missions with Advanced Habitation System technologies. [Low TRL STMD; Mid-High TRL SOMD/ESDMD]
		• Advanced Power
		• In-Situ Resource Utilization
		• Advanced Thermal
		• Advanced Materials, Structures, & Construction
		• Advanced Habitation Systems

Explore Transformative Missions and Discoveries	• Develop next generation high performance computing, communications, and navigation. • Develop advanced robotics and spacecraft autonomy technologies to enable and augment science/exploration missions. • Develop technologies supporting emerging space industries including: Satellite Servicing & Assembly, In Space/Surface Manufacturing, and Small Spacecraft technologies. • Develop vehicle platform technologies supporting new discoveries. • Develop technologies for science instrumentation supporting new discoveries. [Low TRL STMD/Mid-High TRL SMD. SMD funds mission specific instrumentation (TRL 1-9)] • Develop transformative technologies that enable future NASA or commercial missions and discoveries	• Advanced Avionics Systems • Advanced Communications & Navigation • Advanced Robotics • Autonomous Systems • Satellite Servicing & Assembly • Advanced Manufacturing • Small Spacecraft • Rendezvous, Proximity Operations & Capture • Sensor & Instrumentation

Lunar Surface Innovation Initiative (LSII)

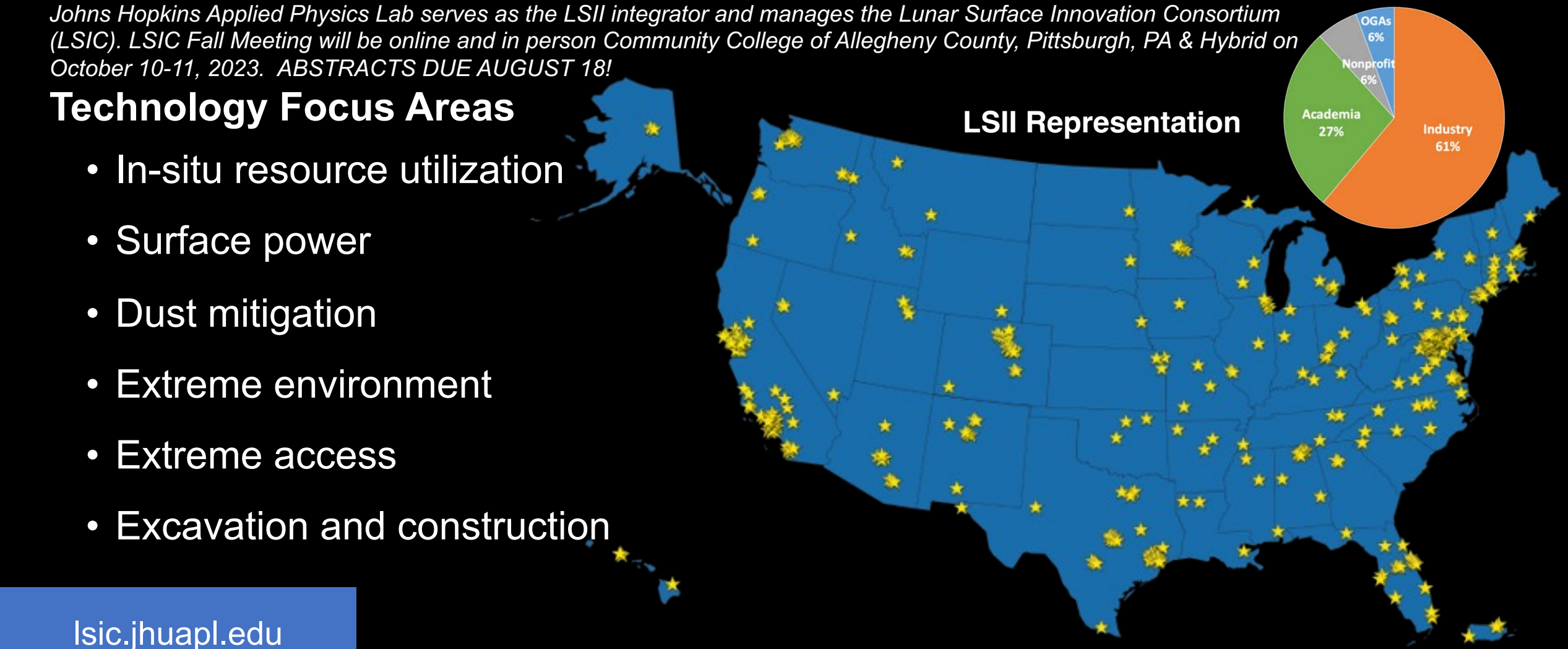
Has engaged 600 organizations across 50 states, DC and Puerto Rico to advance the technologies needed to explore the lunar surface, *sustainably*, in new ways and stimulate a lunar surface economy.

Johns Hopkins Applied Physics Lab serves as the LSII integrator and manages the Lunar Surface Innovation Consortium (LSIC). LSIC Fall Meeting will be online and in person Community College of Allegheny County, Pittsburgh, PA & Hybrid on October 10-11, 2023. ABSTRACTS DUE AUGUST 18!

Technology Focus Areas

- In-situ resource utilization
- Surface power
- Dust mitigation
- Extreme environment
- Extreme access
- Excavation and construction

LSII Representation



lsic.jhuapl.edu

THE CONSORTIUM FOR SPACE MOBILITY AND ISAM CAPABILITIES (COSMIC) is a nationwide coalition that will invigorate a domestic in-space servicing, assembly and manufacturing (ISAM) capability, making it a routine part of space architectures.

OSAM-1 NASA Goddard/Michael Guinto

Mobilize, advance and leverage community expertise spanning federal agencies, industry and academia.

Accelerate **widespread adoption** of ISAM capabilities as an integrated segment of the space enterprise architecture.

Steer the future of ISAM as a coordinated and collaborative effort for space mission lifecycles to reduce costs and increase operational efficiency due to enhanced longevity, utility and resilience.

COSMIC'S KICKOFF MEETING

cosmicspace.org

Our Story

The Early Stage Innovations and Partnerships Portfolio (ESIP) was created to give more support to the important work of STMD's / NASA's early stage technology development and tech commercialization Programs, increasing their value and impact.

ESIP's mission is to empower a community of innovators pioneering aerospace research and transformative technology ventures to enable NASA's mission and invigorate our economic future. Each ESIP Program taps into powerful communities of innovators from different places – small business, universities, NASA researchers, the general public. It balances the spearheading of aerospace research with the encouragement of commercialization through ventures.

What We Do

The Early-Stage Innovation and Partnerships (ESIP) Portfolio empowers a community of innovators pioneering aerospace research and transformative technology ventures. It enables NASA's mission and invigorates our economic future. Working together, ESIP amplifies the value and impact of STMD's and NASA's early-stage technology development and tech commercialization programs. Each of ESIP's programs and activities play an important role in this work.

NIAC

NASA Innovative Advanced Concepts

Nurtures **visionary ideas** that could transform future NASA missions by engaging America's innovators and entrepreneurs as partners in the journey.

30+ grants annually

STRG

Space Tech Research Grants

Challenges the spectrum of **academic researchers** to making science, space travel, and exploration more effective, affordable, and sustainable.

300+ grants with dozens of universities

CIF/ECI

Center Innovation Fund / Early Career Initiative

Stimulate and encourage creativity and innovation within the **NASA Centers and Early Career leaders.**

~140 projects across NASA Centers

PCC

Prizes, Challenges, & Crowdsourcing

Makes opportunities available for **public participation** in NASA research and technology solutions to support.

>40 Activities

SBIR/STTR

Small Business Innovation Research / Small Business Technology Transfer

Engages **small businesses, research institutions, and entrepreneurs** in technology R&D that meet NASA needs and could be commercialized.

>500 contracts with hundreds of small businesses

T2

Technology Transfer

Ensures that innovations developed for exploration and discovery are maximizing the benefit to the Nation and enabling **spinoffs**.

>1,500 Active Patents & **>700** Licenses

----------Cross-Cutting Activities and Early Innovations (~10 investment projects)------

Early Stage Innovation and Commerce (ESIC) • Inclusive Innovation • I-Corps and Entrepreneurial Projects

How We Do Business

Through **contracts, grants, internal research and development awards, and public prize competitions and challenges**, ESIP programs assemble a diverse portfolio of ambitious, risk-informed technology investments. ESIP also invest in tools and processes to enable infusion and commercialization of that research, ultimately supporting US economic growth. ESIP and its programs are defined by a culture of experimentation and learning. The portfolio believes in the power of trial and error: of making bets in support of superlative innovation.

Contracts

Grants

Internal R&D Awards

Challenges

	Title	Solicitation/ Activity Type	Topic/Open	Frequency	Applicant / Audience	Size ($ max) *(based on lifecycle $)*	Volume of Annual Awards
NIAC	NASA Innovative Advanced Concepts (NIAC) Phase I	Grant / Internal Awards	Open	Annual	Government, Industry, Academia	Small	Few
NIAC	NASA Innovative Advanced Concepts (NIAC) Phase II	Grant / Internal Awards	Open	Annual	NIAC Phase I Awardees	Medium	Few
NIAC	NASA Innovative Advanced Concepts (NIAC) Phase III	Contracts	Open	Annual	NIAC Phase II Awardees	Large	Few
CIF/ECI	Center Innovation Fund (CIF)	Internal Awards	Open	Annual	NASA Centers	Small	Many
CIF/ECI	Early Career Initiative (ECI)	Internal Awards	Open	Annual	NASA Early Career Researchers	Large	Few
STRG	NASA Space Technology Graduate Research Opportunities (NSTGRO)	Grant	Open	Annual	Graduate Students, US Universities	Small	Many
STRG	Early Career Faculty (ECF)	Grant	Topic	Annual	Early Career Faculty at US Universities	Medium	Few
STRG	Early Stage Innovations (ESI)	Grant	Topic	Annual	US Universities	Medium	Few
STRG	Lunar Surface Technology Research (LuSTR) Opportunities	Grant	Topic	Annual*	US Universities	Large	Few
STRG	Space Technology Research Institutes (STRI)**	Grant	Topic	Every Other Year	US Universities	Large	Few

Size Legend: *Small: <$500k, Med: $500k-$1M, Large: >$1M)* | **Volume Legend:** *Few: <20, Medium: 20-50, Many: >50)* | ***Every-Other Year Cycle*

	Title	Solicitation/ Activity Type	Topic/Open	Frequency	Applicant / Audience	Size ($ max) *(based on lifecycle $)*	Volume of Annual Awards
I-Corps	NASA Innovation Corps (I-Corps) Pilot	Grant	Open	Open	Academia / Higher-Ed / Non-Profit Research Institutions	Small	Few
SBIR/STTR***	SBIR/STTR Phase I	Contracts	Topic	Annual	Small Businesses	Small	Many
	SBIR Phase II	Contracts	Topic	Annual	SBIR Phase I Awardees	Medium	Many
	STTR Phase II	Contracts	Topic	Annual	STTR Phase I Awardees	Medium	Medium
	SBIR Ignite Phase I	Contracts	Topic	Annual	Small Businesses	Small	Few
	SBIR Ignite Phase II	Contracts	Topic	Annual	SBIR Ignite Phase I Awardees	Medium	Few
	SBIR/STTR Sequentials	Contracts	Topic	Annual	SBIR/STTR Phase II Awardees	Large	Few
	CCRPP	Contracts	Open	Annual	SBIR Phase II Awardees	Large	Few

Size Legend: *Small: <$500k, Med: $500k-$1M, Large: >$1M)* | **Volume Legend:** *Few: <20, Medium: 20-50, Many: >50)* | ****Universities are required partners for STTRs*

	Title	Solicitation/ Activity Type	Topic/Open	Frequency	Applicant / Audience	Size ($ max) *(based on lifecycle $)*	Volume of Annual Awards
SBIR/STTR***	SBIR/STTR Phase II – E	Contracts	Open	Open	SBIR/STTR Phase II Awardees	Small	Medium
	SBIR I-Corps	Contracts	Open	Annual	SBIR Awardees	Small	Medium
	SBIR/STTR Phase III	N/A	N/A	Open	Phase I/Phase II Awardees	N/A	N/A
PCC	Crowdsourcing Contenders	Internal Awards	Open	Annual	NASA Employees	Small	Few
	NASA@WORK Projects	Crowdsourcing	Topic	Open	NASA Employees	N/A	Many
	NTL Projects	Prizes, Challenges, Crowdsourcing	Topic	Open	Public	Varies	Many
	Centennial Challenge Projects	Prize	Topic	Ad-Hoc	Public	Large	Few
Tech Transfer	Invention Disclosure	Invention Disclosure	Open	Ad-Hoc	Internal Audience	N/A	N/A
	Software Release	Software Release	Open	Ad-Hoc	External and Internal Audiences	N/A	N/A
	Patent Licensing	Patent Licensing	Open	Ad-Hoc	Industry	N/A	N/A

Size Legend: *Small: <$500k, Med: $500k-$1M, Large: >$1M)* | **Volume Legend:** *Few: <20, Medium: 20-50, Many: >50)* | ****Universities are required partners for STTRs*

NASA.gov/Solve

I-Corps Pilot Overview

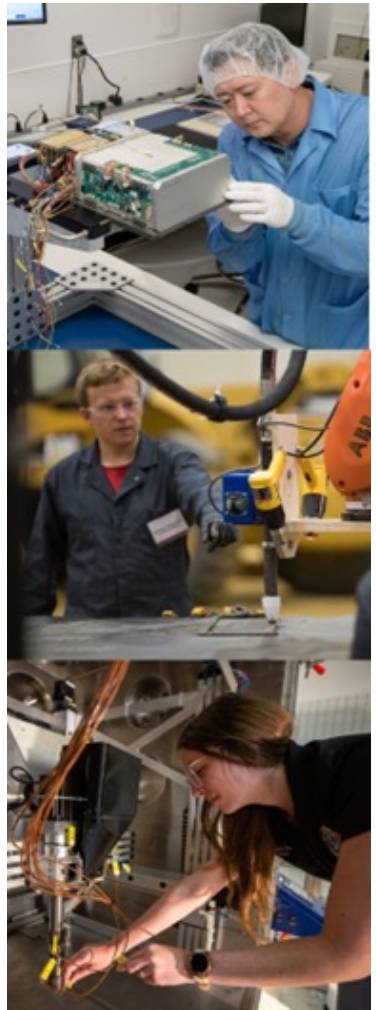
Are you ready for your innovation to take off?

Join NASA's Innovation Corps Pilot today

Apply to participate in an immersive entrepreneurship training designed to help you take your idea from the lab to the marketplace. The opportunity is designed for not-for-profit entities, such as academia & nonprofit research institutions.

Build your capabilities through the NASA Innovation Corps:

- **Informed decision-making** to facilitate research and/or technology transitions and new NASA funding opportunities
- Facilitated focus and inspiration on the **commercial potential** of proposed research and/or technology
- Advanced **workforce development opportunities** in science missions and space technology by preparing students with a foundational education in entrepreneurship
- Enhanced **entrepreneurial mindsets**



Interested in exploring potential customers? Form your team and apply today for a **$10k grant** to support your team & customer discovery. Subsequent funding up to **$40k** will also be available.

Easy lift proposal - 6 pages or less - due to NSPIRES by:

- September 8, 2023
- January 26, 2024
- March 29, 2024

Stay Connected

Create a NSPIRES account and subscribe to the newsletters for reminders and updates and read the full solicitation for the most accurate and up-to-date information.

Sites and Contacts

STMD Solicitations & Funding Opportunities: https://www.nasa.gov/directorates/spacetech/solicitations

STMD Programs: https://www.nasa.gov/directorates/spacetech/programs

NASA Innovative Advanced Concepts
Acting Program Executive, Michael LaPointe: michael.r.lapointe@nasa.gov, hq-niac@mail.nasa.gov

Space Technology Research Grants
Program Executive, Matt Deans: matthew.c.deans-1@nasa.gov

Prizes, Challenges and Crowdsourcing
Program Executive, Amy Kaminski: amy.p.kaminski@nasa.gov

Technology Transfer
Program Executive, Dan Lockney: daniel.p.lockney@nasa.gov

SBIR/STTR
Program Executives, Jason Kessler, Gynelle Steele and Damian Taylor: sbir@reisystems.com

Innovation Corps

Crosscut Lead, Maggie Yancey Margaret.a.Yancey@nasa.gov

Lunar Surface Innovation Consortium
Technical Communications Specialist, Andrea Harman: ams573@alumni.psu.edu, SES-LSIC-Web@jhuapl.edu

Meet the Speaker

Dina Salazar
Program Specialist
NASA Small Business Innovation Research (SBIR) and
Small Business Technology Transfer (STTR) Program

Dina Salazar joined NASA's Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) program in 2017. Dina is currently serving as the Phase I/II Workstream Lead in the Program Management Office executing activities for early-stage technology research and development that have potential for infusion into NASA, private sector commercialization, and societal benefit. She is responsible for managing Phase I and Phase II solicitation lifecycle processes, launching new initiatives, and advising on policy and strategy. Dina has 20 years of experience within the Aerospace, Aviation, and Department of Defense sector as a program manager, management and program analyst, and project manager.

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National Aeronautics and Space Administration

Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Program Overview

Dina Salazar | Phase I/II Workstream Lead

August 15, 2023

NASA SBIR/STTR Program

sbir.nasa.gov

AGENDA

- What is the SBIR/STTR Program?
- What do we provide?
- Why do we provide this?
- What is the difference between SBIR and STTR?
- Who can join?
- Who received 2023 Phase I awards?
- How can you partner with a Minority Serving Institution?
- What exactly do you get?
- How does it work?
- Where do you start?
- What are Focus Areas?
- What is SBIR Ignite?


WE ARE
PIONEERS,
AND SO
ARE YOU.

What is the SBIR/STTR Program?

- Highly competitive program that encourages domestic small businesses to engage in Federal Research/Research and Development (R/R&D) with the potential for commercialization

- **Small Business Technology Transfer (STTR)**
  - Established in the 1990s; created to facilitate cooperative R&D between small businesses and U.S. research institutions (RIs)
  - NASA is 1 of 6 participating agencies

- **Small Business Innovation Research (SBIR)**
  - Has been around since 1980s
  - NASA is 1 of 11 participating agencies

Approximately $3 billion invested per year by participating agencies

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)
- Department of Agriculture (USDA)

SBIR Program Only

- Department of Education (ED)
- Department of Transportation (DOT)
- Environmental Protection Agency (EPA)
- Department of Homeland Security (DHS)
- Department of Commerce (DOC)

What do we provide small businesses?

- **Early-stage funding** for research & development (R&D)
- **Up to $1 million** during your first three years, plus up to nearly $3 million or more through Post Phase II opportunities
- We **take zero equity**, and you keep your intellectual property
- The **experience** of working with NASA experts on your technology
- The **opportunity** to join us on one of our many ambitious missions
- A **network** of diverse entrepreneurs and innovators
- A door into potential work with **NASA programs and other government agencies**
- A way to hone your **business skills** to complement your technical skills
- A way to **de-risk your technology** as you work to mature it
- A **reputation** that comes with working with an agency known for expanding the physical and mental boundaries of humanity

What do we provide research institutions?

For RIs:

- A path to turn **cutting-edge research** from the lab to **life-changing technology** in the market
- The **credibility** that comes from working alongside **NASA's researchers and experts**
- A **federal funding** mechanism to advance research in your area of interest

For Professors:

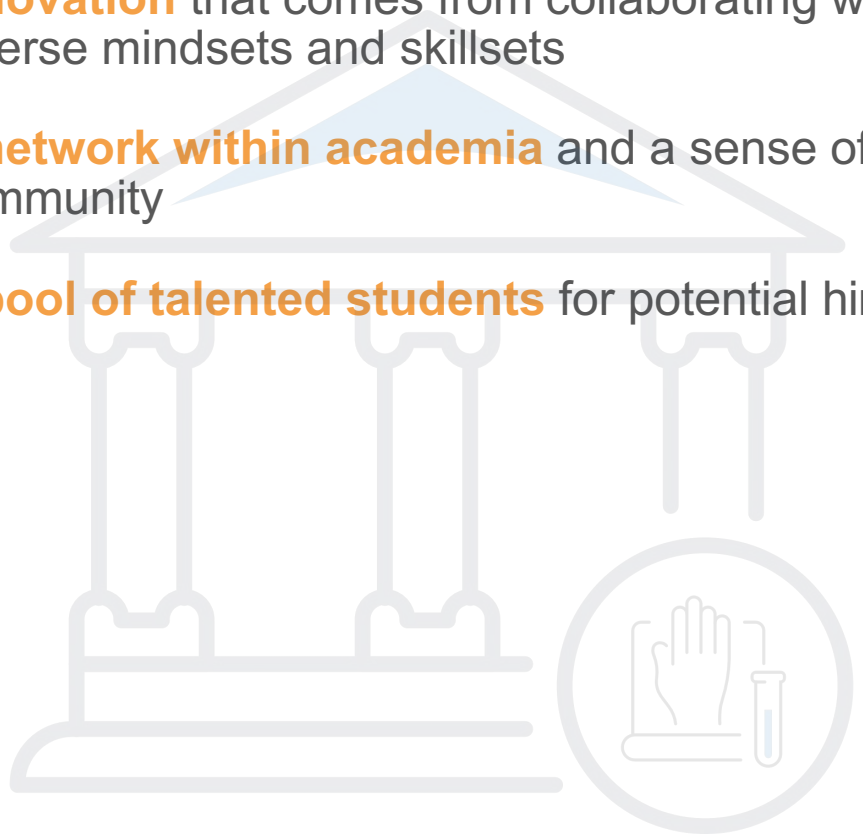
- Research data for potential **publication in the future**
- A way to **expose students to exciting projects** that could lead to employment
- An approach to **foster entrepreneurship and innovation** in students
- A **differentiator when marketing** your institution to potential students

For Students:

- The opportunity to work on **pioneering research projects**
- **Experience** that could lead to employment

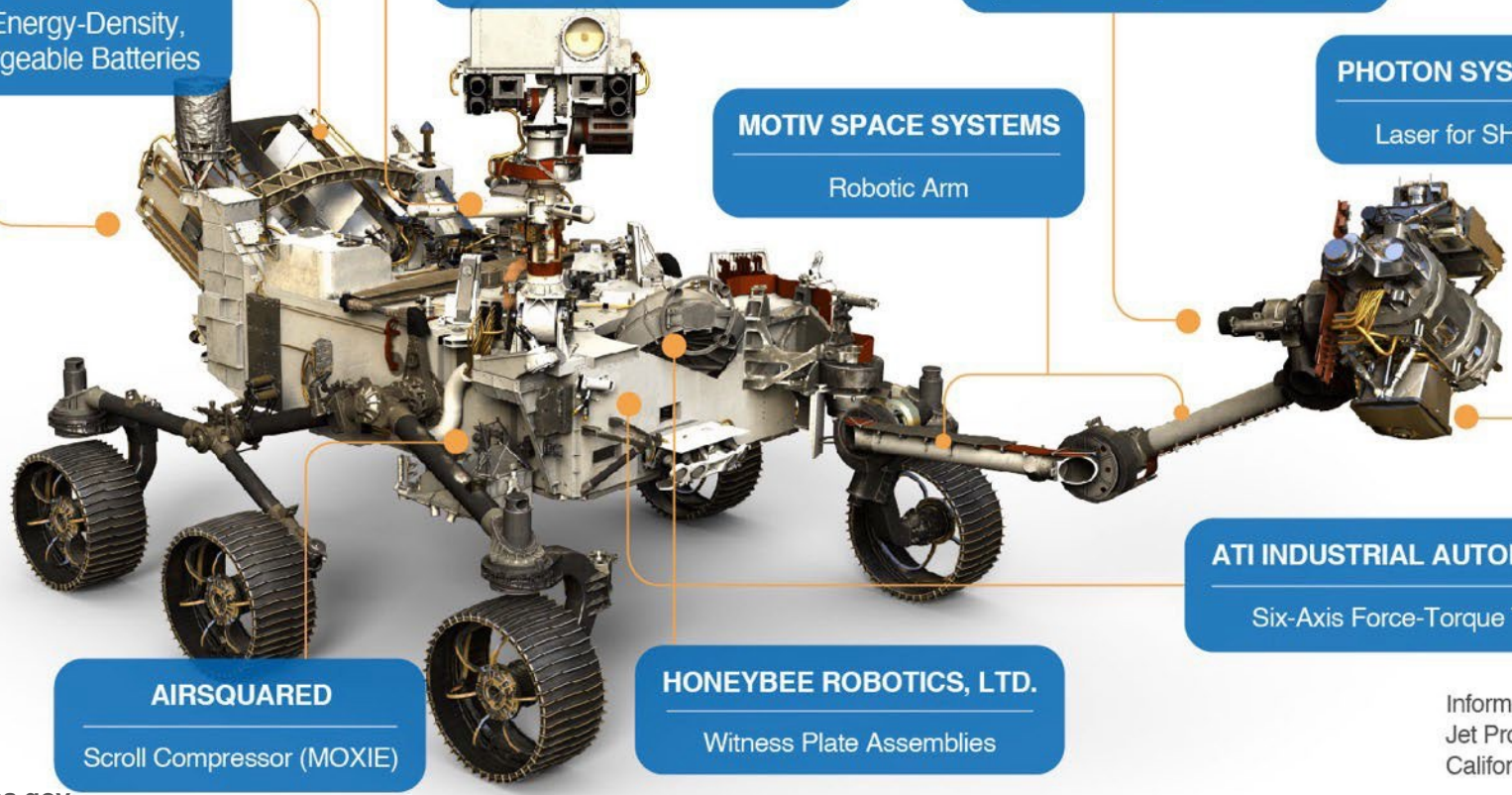
What do RIs provide small businesses (STTR)?

- Groundbreaking ideas waiting to **transition from the lab to the market**
- Access to **state-of-the-art facilities** and lab equipment
- A **higher chance of winning** due to less competition (compared to SBIR)
- **The expertise** of students and professors immersed in research daily
- Additional researchers as subcontractors (up to 60% in Phase I vs. only 33% in SBIR)
- **Innovation** that comes from collaborating with diverse mindsets and skillsets
- A **network within academia** and a sense of community
- A **pool of talented students** for potential hire



Infusion into NASA's missions

SBIR TECH ON-BOARD MARS 2020
PERSEVERANCE ROVER



YARDNEY (EAGLE PICHER)
High-Rate, High-Energy-Density, Lithium-ion Rechargeable Batteries

HONEYBEE ROBOTICS, LTD.
Dust Mitigation Tool

ENGI-MAT
Space suit materials (calibration target of SHERLOC)

PHOTON SYSTEMS, INC.
Laser for SHERLOC

MOTIV SPACE SYSTEMS
Robotic Arm

ATI INDUSTRIAL AUTOMATION, INC.
Six-Axis Force-Torque Transducer

AIRSQUARED
Scroll Compressor (MOXIE)

HONEYBEE ROBOTICS, LTD.
Witness Plate Assemblies

Information provided by:
Jet Propulsion Laboratory
California Institute of Technology

sbir.nasa.gov

What is the difference between SBIR and STTR?

- The STTR program exists to unlock the power and innovative thinking of the country's **research institutions**
- The primary difference is that for STTR, the small business **must formally partner** with a research institution (RI)
- Topics in **SBIR** support NASA's **mission directorates**, whereas the **STTR** topics are derived from the specific needs of NASA's **ten centers**
- The **period of performance** for a Phase I is longer for STTR due to the nature of the academic calendar for universities
- SBIR: Principal Investigator (PI) must be more than 50% employed by the small business
- STTR: Principal Investigator (PI) can be employed by either the small business or the research institution

Who can join?

- The SBIR/STTR program's **focus is on R&D**, funding ideas that have the potential to solve some of NASA's most pressing challenges
- You **must be a Small Business Concern (SBC)** with 500 employees or less and legally established in the U.S. (visit our website for the full criteria)
- **For STTR**, the partnering research institution must be in the U.S. and be a nonprofit college or university, domestic nonprofit research organization, or a federally funded R&D Center (FFRDC)
- **If NASA is not the right fit**, there are 10 other government agencies that have SBIR/STTR programs that you may want to explore: https://www.sbir.gov/agencies-landing

Approximately 80% of the small businesses we fund have less than 50 employees

Who received 2023 Phase I awards?

249 small businesses and **39 research institutions (RIs)** selected to receive a total of **$45 million** to develop **300 technology proposals**

Awardees spread across 38 states and Washington, DC

25% of selected companies are women-owned, veteran-owned, disadvantaged, and/or HUBzone small businesses

20% of selected RIs are Minority Serving Institutions (MSIs)

30% of the companies selected are first-time NASA SBIR/STTR recipients

4 STTR awardees previously received M-STTR planning grants – now part of **MPLAN** – which were created to incentivize partnerships between MSIs and small businesses before Phase I submission

How can you partner with a Minority Serving Institution (MSI)?

Encourage potential MSI partners to apply for future **MPLAN award**

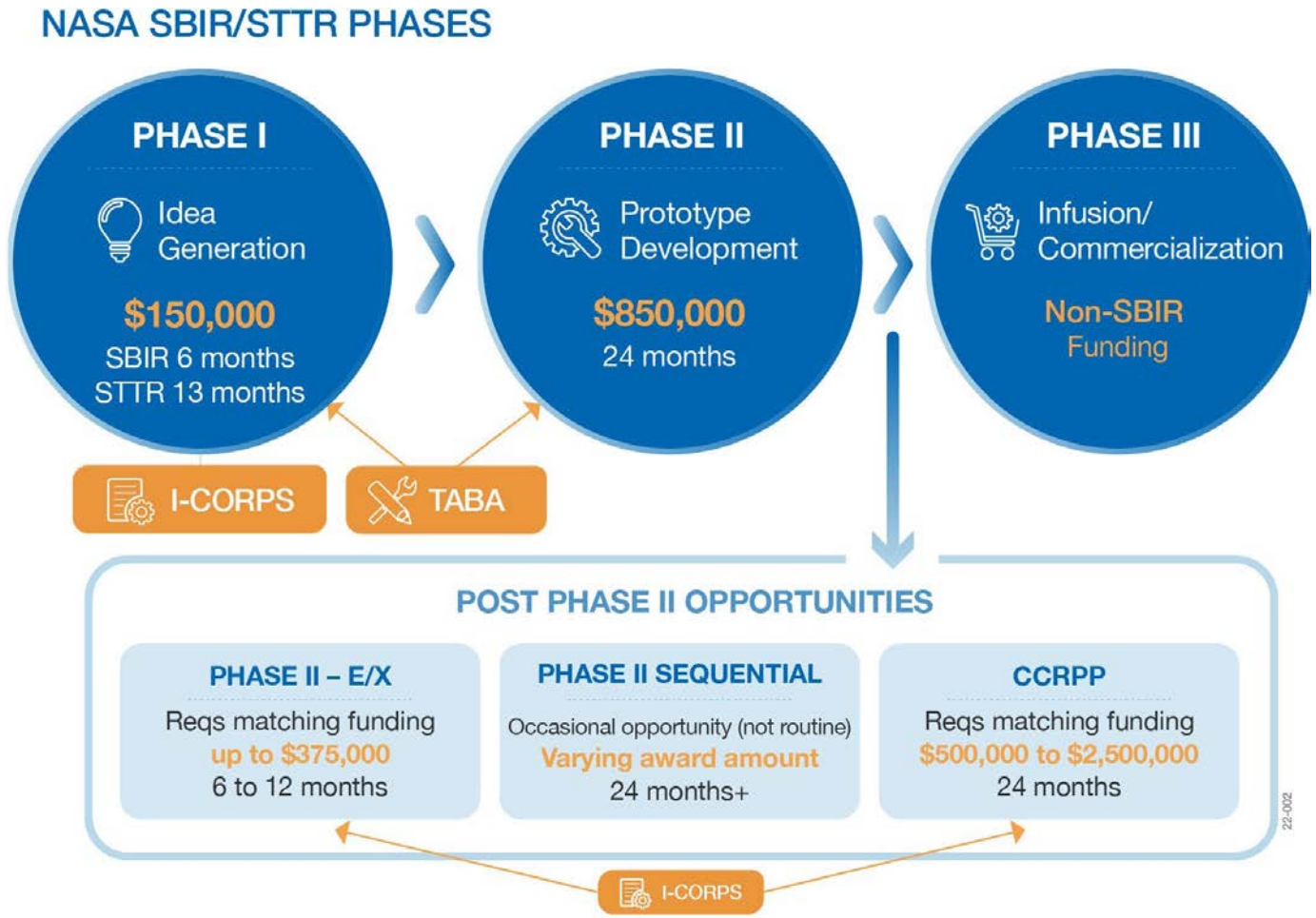
- MPLAN awards provide **funding** (to be shared with a small business) and **NASA guidance** to MSIs in preparation for larger funding opportunities like the NASA STTR solicitation**.** They are typically offered in the Spring; most recent opportunity closed May 30, 2023.
- Offered by NASA's Minority University Research and Education Project (MUREP), MPLAN is an evolution of the previous M-STTR solicitation.
- Read about Oakwood University, a 2021 M-STTR awardee that went on to win a NASA STTR Phase I award with their small business partner.

Explore the **MSI Exchange** and look for a partner whose capabilities align with your tech

- The MSI Exchange is a platform for NASA researchers, prime contractors, small businesses, and MSIs to review capabilities, connect, and collaborate.
- It provides a central location to **upload and search MSI capability statements** in pursuit of partnership opportunities. Learn more: https://msiexchange.nasa.gov

What exactly do you get?

Up to $1 million for Phase I and II and nearly $3 million or more for Post Phase II opportunities!



How does it work?

Solicitation Release

January 2024

Proposal Submissions

January – March 2024

Proposal Reviews and Selection

March – June 2024

Phase I Selection Announcement

June 2024

Note: A Federal agency may enter into a Phase III agreement at any time with a Phase I or Phase II awardee.

Contract Negotiations/Awards

June – August 2024

Phase II Proposal Submission

Due by Phase I Contract End Date

Note: Dates are subject to change. For the latest dates, please visit our website's "Schedule & Awards" page.

Where do you start?

- Visit our website and **read the recent solicitations**, https://sbir.nasa.gov/solicitations, to understand NASA's technology focus areas. Get a feel for the types of challenges NASA is looking to solve and if you think you have a solution, NASA could be a fit for you!
- Determine your **topic(s)** of interest. If STTR, find a research institution partner.
- Sign up for our **newsletter** and other communications: sbir.nasa.gov/info
- Keep an eye out for opportunities to meet with **NASA experts**: https://sbir.nasa.gov/programevents
- Contact a Center Technology Transition Lead (**CTTL**): sbir.nasa.gov/contacts
- Watch our **Dissecting the Solicitations** webinar recording for advice you can use year-round to prepare for the next Phase I solicitations: https://youtu.be/Xqti9u_mgTM
- Find additional sources of **assistance**: sbir.nasa.gov/content/additional-sources-assistance

2023 Focus Areas

Topics are SBIR unless denoted by a * indicating both SBIR and STTR

1. In-Space Propulsion Technologies
2. Power, Energy, and Storage
3. Autonomous Systems for Space Exploration*
4. Robotic Systems for Space Exploration*
5. Communications and Navigation
6. Life Support and Habitation Systems*
7. Human Research and Health Maintenance
8. In-Situ Resource Utilization*
9. Sensors, Detectors, and Instruments*
10. Advanced Telescope Technologies
11. Spacecraft and Platform Subsystems
12. Entry, Descent, and Landing Systems*
13. Information Technologies for Science Data
14. *Focus Area not solicited in 2023*
15. Materials Research, Advanced Manufacturing, Structures, and Assembly*
16. Ground Launch & Processing*
17. Thermal Management Systems
18. Air Vehicle Technology*
19. Integrated Flight Systems
20. Airspace Operations and Safety
21. Small Spacecraft Technologies
22. Low Earth Orbit Platform Utilization and Microgravity Research
23. Digital Transformation for Aerospace *(STTR only)*
24. Dust Mitigation and Extreme Lunar Environment Mitigation Technologies

For more information on SBIR and STTR Focus Areas, review Chapter 9 of each solicitation: sbir.nasa.gov/solicitations

SBIR Ignite

What makes it different?

- **Focus on Commercialization:** Seeks technologies that will stimulate the market and where NASA is not the primary customer
- **Engagement:** Down-selected companies get direct engagement with a panel of experts
- **Fewer Topics:** Focused list of topics relevant to emerging commercial markets in aerospace
- **Less Prescriptive Solicitation & Shorter Proposal**
- **Accelerated Award Schedule:** SBIR Ignite Phase II proposals will be due earlier in the Phase I period, allowing Phase II awards to be made faster

2023 SUBMISSION PERIOD
August 1 – September 21, 2023

2023 AWARD AMOUNT
Phase I: $150,000
Phase II: $850,000

2023 PERIOD OF PERFORMANCE
Phase I: 6 months
Phase II: 24 months maximum

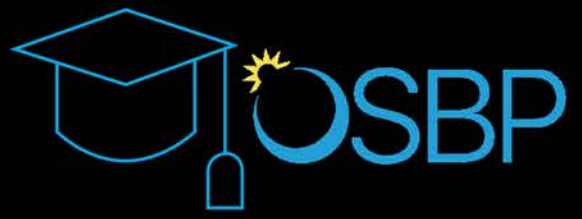
LEARN MORE
sbir.nasa.gov/ignite

Questions?

Visit our website:
www.sbir.nasa.gov

Q & A

NASA Space Technology Mission Directorate on Early Stage Innovations and Partnerships: Small Business Innovation Research and Additional Program Highlights



Learning Series Webinar

Can we submit SBIR/STTR proposals to multiple agencies?

How do we get more involved?

How to take advantage of small business opportunities at NASA?

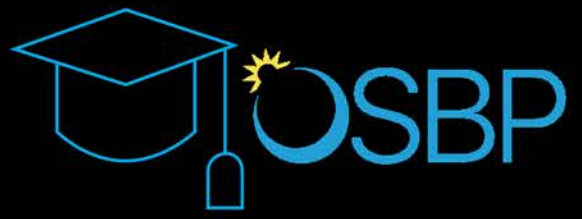
NASA Space Technology Mission Directorate on Early Stage Innovations and Partnerships: Small Business Innovation Research and Additional Program Highlights

OSBP Learning Series Webinar

Can you provide the number of awards and funding available for this current NASA SBIR opening?

Innovation is 10 years ahead, no contracts, no SBIR/STTR… How are you adapting?

NASA Space Technology Mission Directorate on Early Stage Innovations and Partnerships: Small Business Innovation Research and Additional Program Highlights



Learning Series Webinar

How is the resulting intellectual property treated?

What are the research opportunities for a business focusing on modeling and simulation research at NASA?

What Technology Readiness Level (TRL) is expected before a company submits its first SBIR proposal?

Where and how to obtain pre seed funding?

What will be the process to make the partnerships between NASA and Small business work in this program?

We have a number of completed Phase I and Phase II SBIR/STTRs that are applicable to NASA and would like to understand how we can transition these technologies to NASA's portfolio using a Phase II follow-on award of a Phase III transition strategy. How can we work with NASA to accomplish this?

What programs are available for students ages 6-11 and 15-17? What are the required qualifications?

What is post-Phase II avenues for SBIR recipients for technology maturation? Can STMD provide Phase III contracts to SBIR recipients for tech maturation, so that they can get post-Phase II matching funds from the SBIR program?

I’m interested to know the process to discovering the needs of each center/mission.

Can I partner with a university on an SBIR topic?

What are the 4 biggest challenges they are currently facing & why?

Updates

NASA Space Technology Mission Directorate on Early Stage Innovations and Partnerships: Small Business Innovation Research and Additional Program Highlights

OSBP Learning Series Webinar

OSBP Mobile App

Are you a small business looking to make a big difference? Whether you own an engineering company, develop new telemetry software algorithms, or provide Information Technology services, the NASA Office of Small Business Programs (OSBP) can help you make that difference at the Agency by providing the necessary tools right at your fingertips.

OSBP Mobile is designed to help:

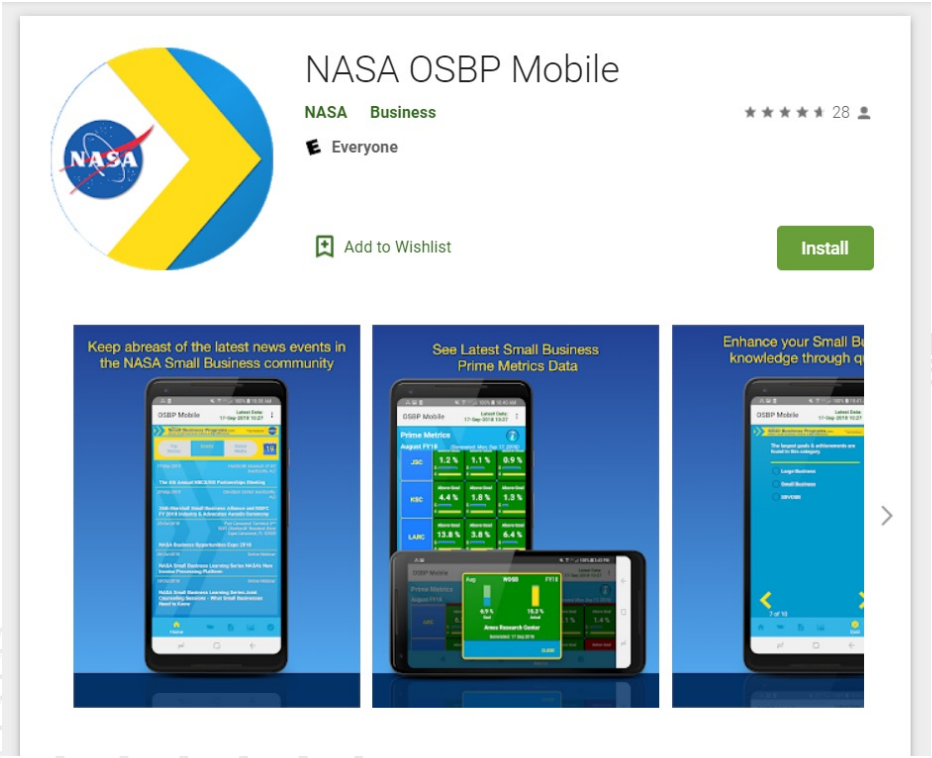
Provide active contract listings and requests for proposals

Network with Small Business Specialists at each NASA Center

Explore the latest Agency prime metrics data

Inform you of the latest small business news and events.

Come make a BIG difference at NASA!



Download at:
https://play.google.com/
https://apps.apple.com

NASA Space Technology Mission Directorate on Early Stage Innovations and Partnerships: Small Business Innovation Research and Additional Program Highlights

OSBP Learning Series Webinar

OSBP Gets Social!

- NASA Vendor Database
- OSBP Mobile App
- OSBP is on Facebook!
- OSBP in on X
- Subscribe to Our Mailing List

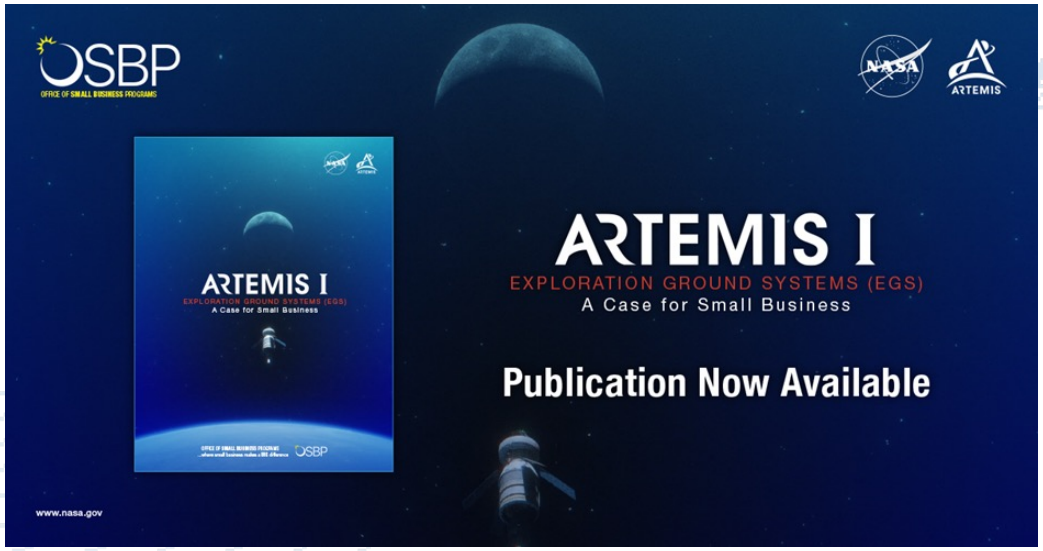
Check out NASA's LinkedIn page for OSBP updates!
https://www.linkedin.com/company/nasa/

OSBP Publications

OSBP provides many resourceful publications to the small business community.

The Small Business Guide to NASA
Small Business Industry Awards
NASA Industry Forum Success Stories
NASA OSBP Spotlight
Other Publications

To view/download, visit:
https://www.nasa.gov/osbp/osbp-publications



NASA Space Technology Mission Directorate on Early Stage Innovations and Partnerships: Small Business Innovation Research and Additional Program Highlights

OSBP Learning Series Webinar

Upcoming OSBP Outreach Events & Webinars

Online: https://www.nasa.gov/osbp/regional-outreach
Online: https://www.nasa.gov/osbp/learning-series

OSBP Learning Series

September 20, 2023
How to Write a Winning Proposal and Capabilities Statement

October18, 2023
Equity in Action: Closing the Disability Divide

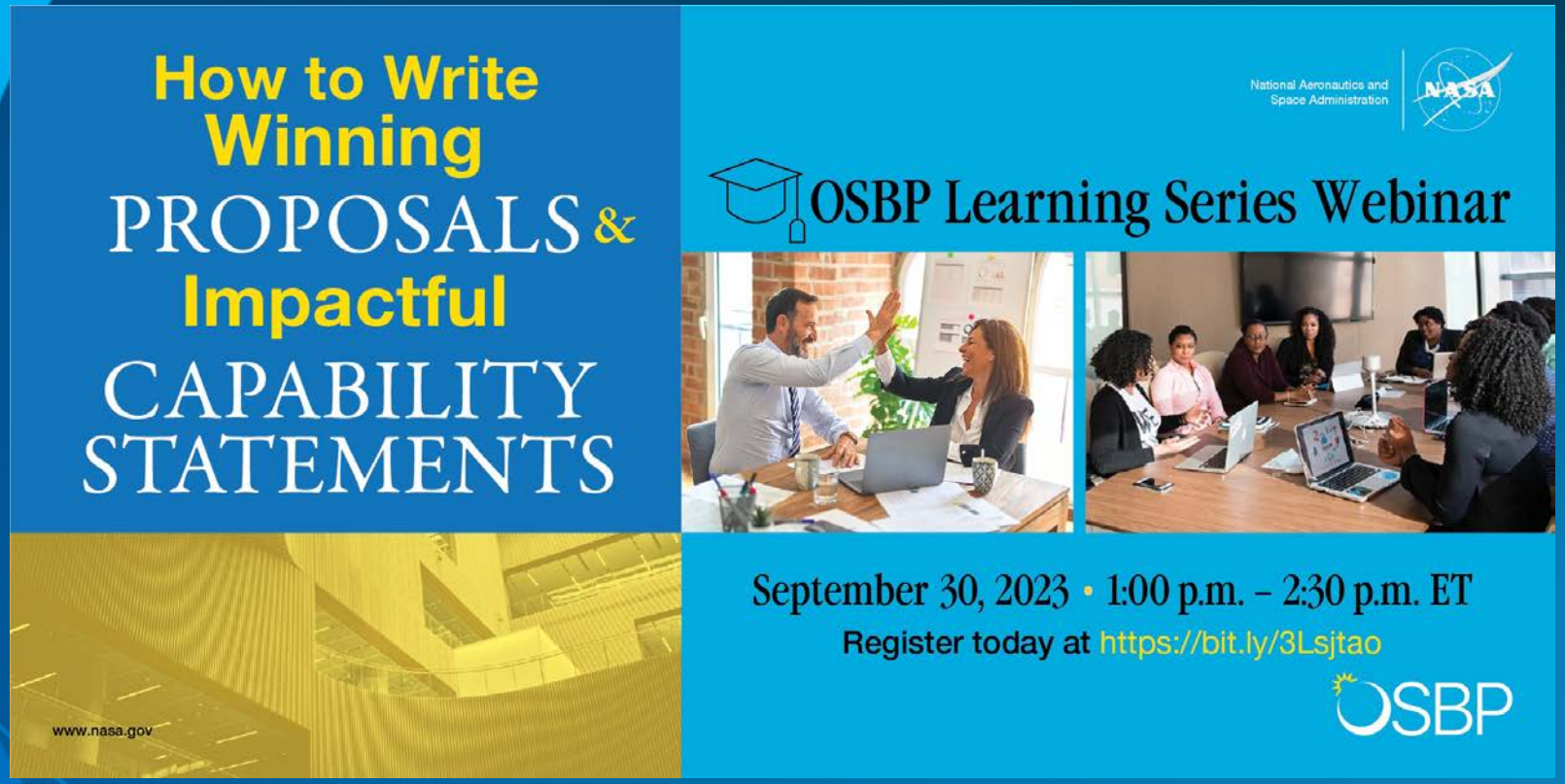
November 15, 2023
Native American Business Development Programs

December 13, 2023
Programs and Resources to Help You Do Business with the Federal Government

OSBP Outreach Events

October 11, 2023 (In-Person)
NASA Small Business Opportunities and Resources Networking Conference
Washington, DC

Register Today!



SCAN ME

Scan this QR code to register for the NASA OSBP Learning Series or click the link below.

https://www.nasa.gov/osbp/learning-series

The NEW NASA Vendor Database is Here!

SCAN ME

Scan this QR code to register for the new NASA Vendor Database or click the link below.

https://apps.nasa.gov/nvdb/

OSBP Learning Series: CALL FOR NEW TOPICS!!

NASA's Office of Small Business Programs is NOW ACCEPTING new topics ideas for our monthly OSBP Learning Series Webinars!

We would LOVE to hear from you!!

Please submit your topic ideas to smallbusiness@nasa.gov!

Learn more about NASA OSBP!

www.nasa.gov/osbp

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