



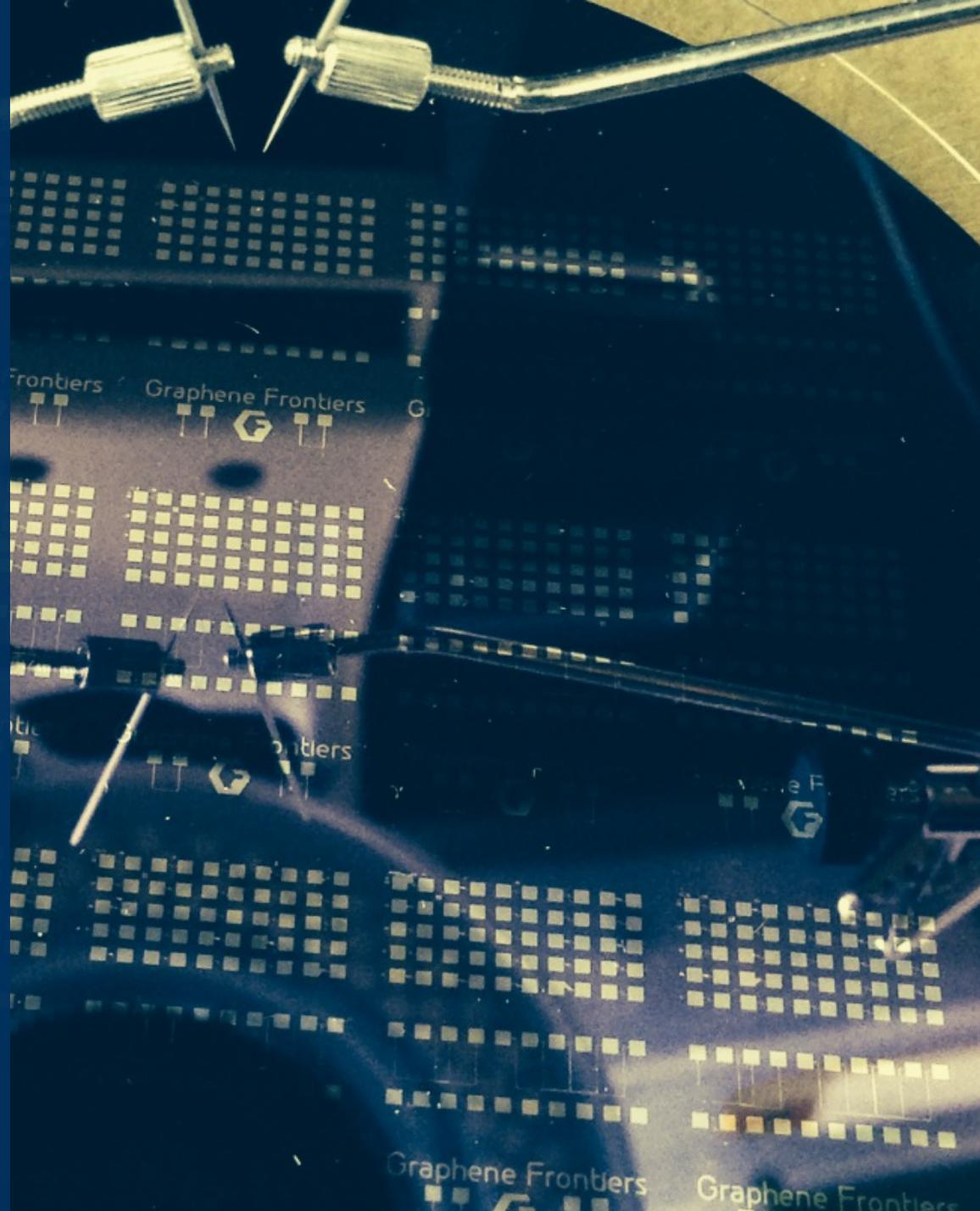
SBIR | STTR

**Small Business Innovation
Research & Small Business
Technology Transfer**

at the National Science Foundation

WHAT IS THE NSF SBIR/ STTR PROGRAM?

- Who We Are
- Why We Fund
- Statement





Who We Are

The NSF is:

- A federal agency that supports fundamental research and education across all fields of science and engineering, currently with a \$7 billion budget.

NSF SBIR/STTR is:

- An approximately \$170 million program that catalyzes the commercialization of high-risk technological innovations via research and development (R&D) grants to startups and other small businesses. Approximately \$6 -\$10 million goes to education related projects for small businesses.
- The NSF SBIR/STTR program funds roughly 400 companies each year. (Funding rate varies between 12-20%.)



Broad Technology Areas

Focus: *High-risk technical* R&D. High risk implies that it would be difficult for a copy-cat imitator to mimic the project's effort.

Some areas include but are not limited to:

- Biological, biomedical, environmental, and chemical technologies
- Educational technologies and applications
- Electronics, information, and communication technologies
- Nanotechnology, advanced materials, and manufacturing

TOPIC AREAS

- SBIR/STTR Education Applications and Technologies Program



Photo Credit: NCD Technologies, LLC



Educational Technologies and Applications

Topic Areas

Major topics include:

- EA 1: General Education
- EA2: Global and Collaborative Education
- EA3: Simulations and Gaming Technologies
- EA4: Entrepreneurial and Maker Education
- EA5: Learning and Assessment
- EA6: Computer Science and Information Technology for Education

Dozens of sub-topics can be found on
www.nsf.gov/eng/iip/sbir/topicsEA.jsp



Example #1 of a Funded Project

1456530 – KinderLab Robotics, Inc.

Focus- robot systems designed for early childhood education (preK-2).

Innovation - the design of a robot system that engages 4 to 7 year old children in learning programming concepts through the use of a developmentally appropriate programming language.



Example #2

1230334 – Second Avenue Software, Inc.

Focus- a collaborative educational game aimed at middle-school physical science students.

Innovation - tracking play mechanics, testing for student engagement, and technological enhancement of scientific inquiry skills and knowledge of physical science principles.



Example #3

1330138 – i-Human Patients, Inc.

Focus- physician training using a simulated patient service enabling medical educators to accelerate development of students' clinical competencies.

Innovation – user experience platform, coupled with server and client data security technologies, simulations, complex computation and storage-intensive technologies with real-time collaboration capabilities.



Is NSF SBIR/STTR an Appropriate Opportunity for My Company?

NSF SBIR/STTR assists companies with technologies that require additional R&D towards successful commercialization.

- Must be a technologically advanced or innovative product that isn't an already existing product or process
- Must satisfy a significant, validated market need

PROPOSAL REVIEW

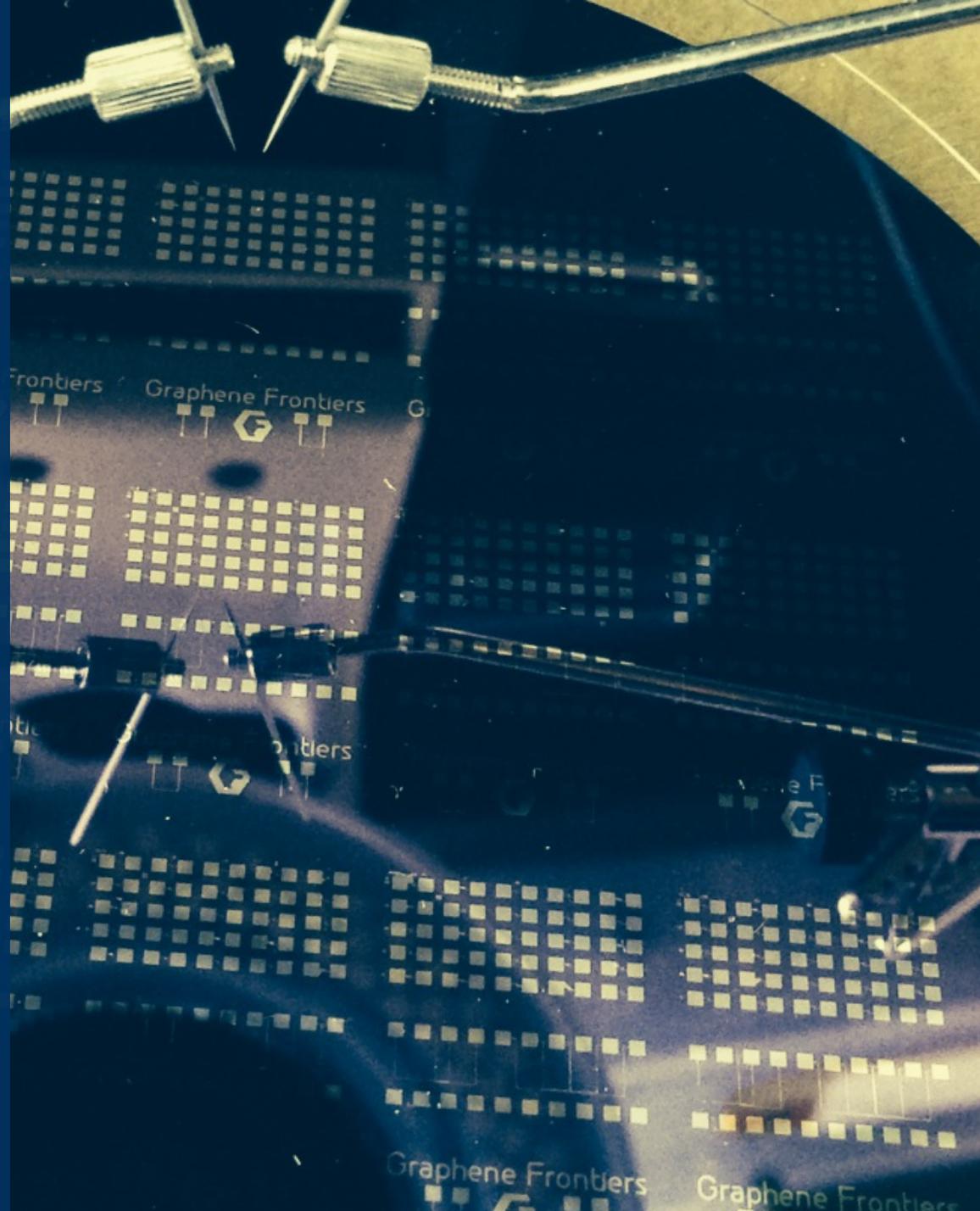


Photo Credit: Graphene Frontiers, LLC



Proposal Review

For Phase I, reviewers examine proposals for:

Intellectual Merit

- The innovation
- Company/team
- Technical hurdle(s) to be overcome
- R&D plan

Broader/Commercial Impact

- Market opportunity
- Company/team
- Technology and competition
- Sustainable business model
- Societal benefits

Exact review criteria: [Peer View Guidelines](#).

PROGRAM STATS

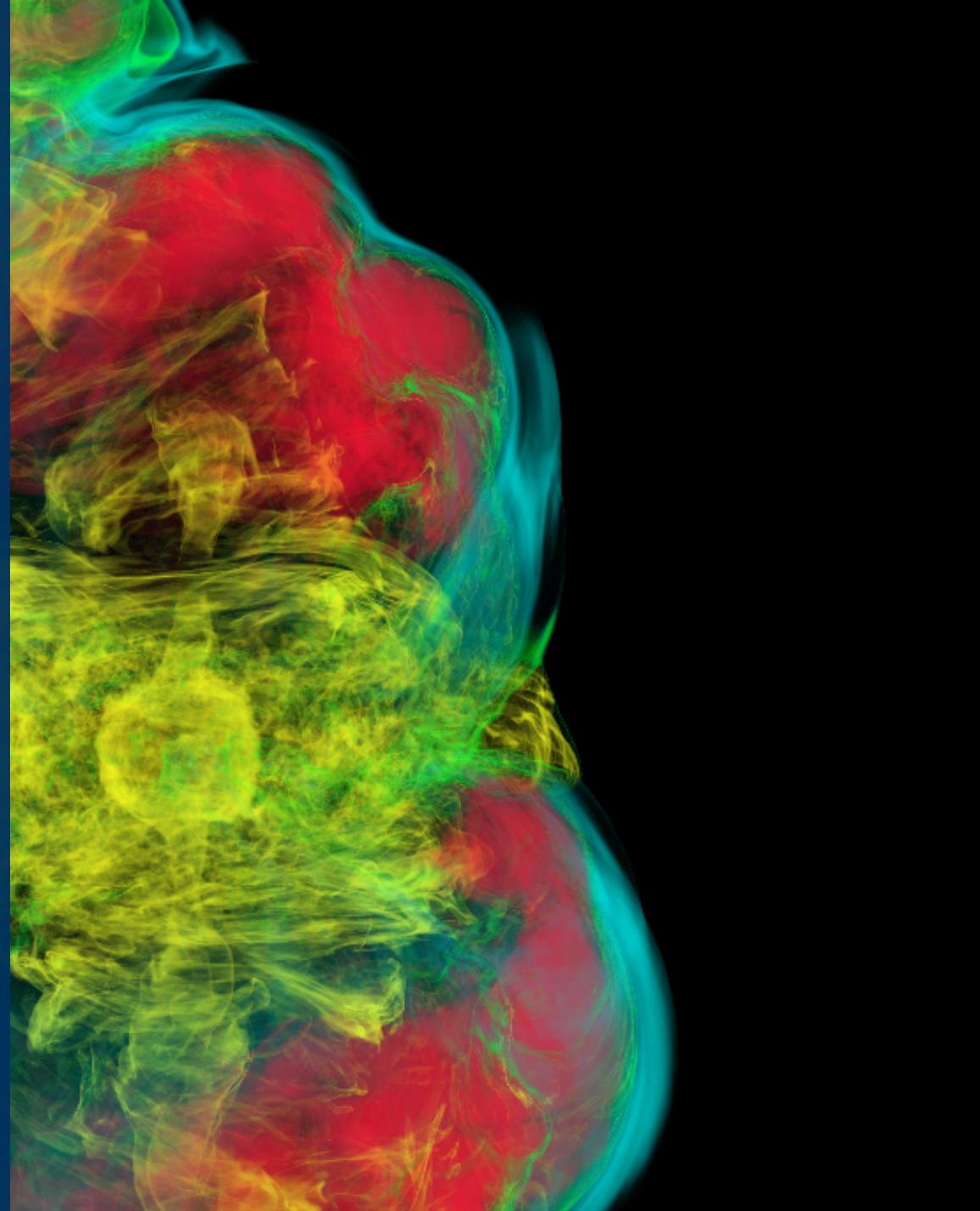


Photo Credit: Philipp Moesta, TAPIR,
California Institute of Technology



Program Stats – Phase I (1 of 2)

NSF SBIR/STTR Phase I Grantees

- **Head Count:** ~ 85% of awardees have 10 or fewer employees
- **History:** ~ 75% of awardees had never had a prior SBIR/STTR Phase II award from any agency
- **Company Age:** ~ 70% of awardee companies were incorporated within the past 5 years
- **Start-up Creation:** Several dozen Phase I awardees each year incorporate based on our Phase I funding



Program Stats – Phase I (2 of 2)

Follow-on Investment: Each year, active Phase II grantees raise a total of \$30-90M in sales or new third-party investment based on progress during the award.

- NSF can match these third-party funds (Phase IIB program - \$1 of new NSF money per \$2 of third-party money, up to \$500k)

HOW / WHEN DO I APPLY?

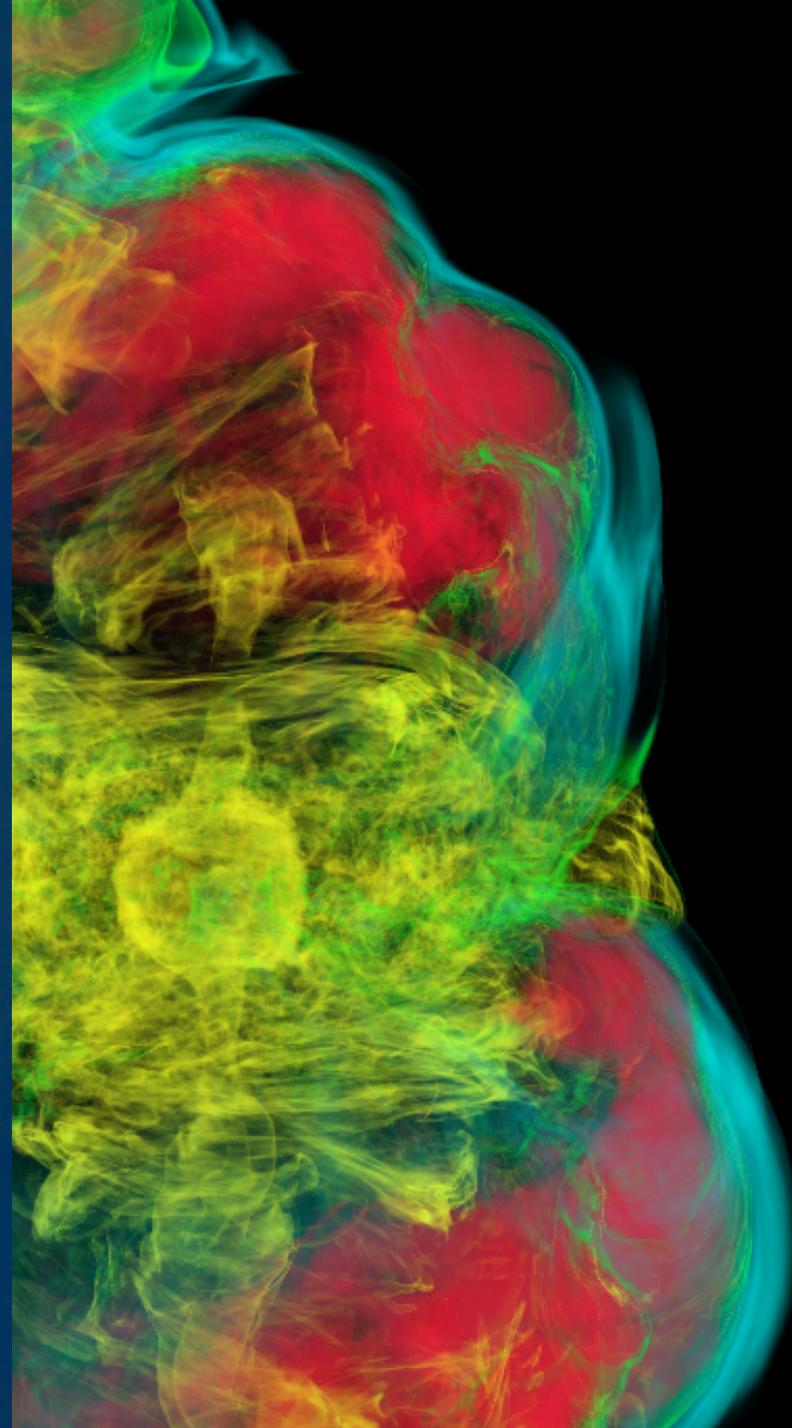


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How Do I Apply?

Phase I proposal submission deadline dates are typically in early June and December. A **program solicitation** announces the actual opportunity and exact deadlines.

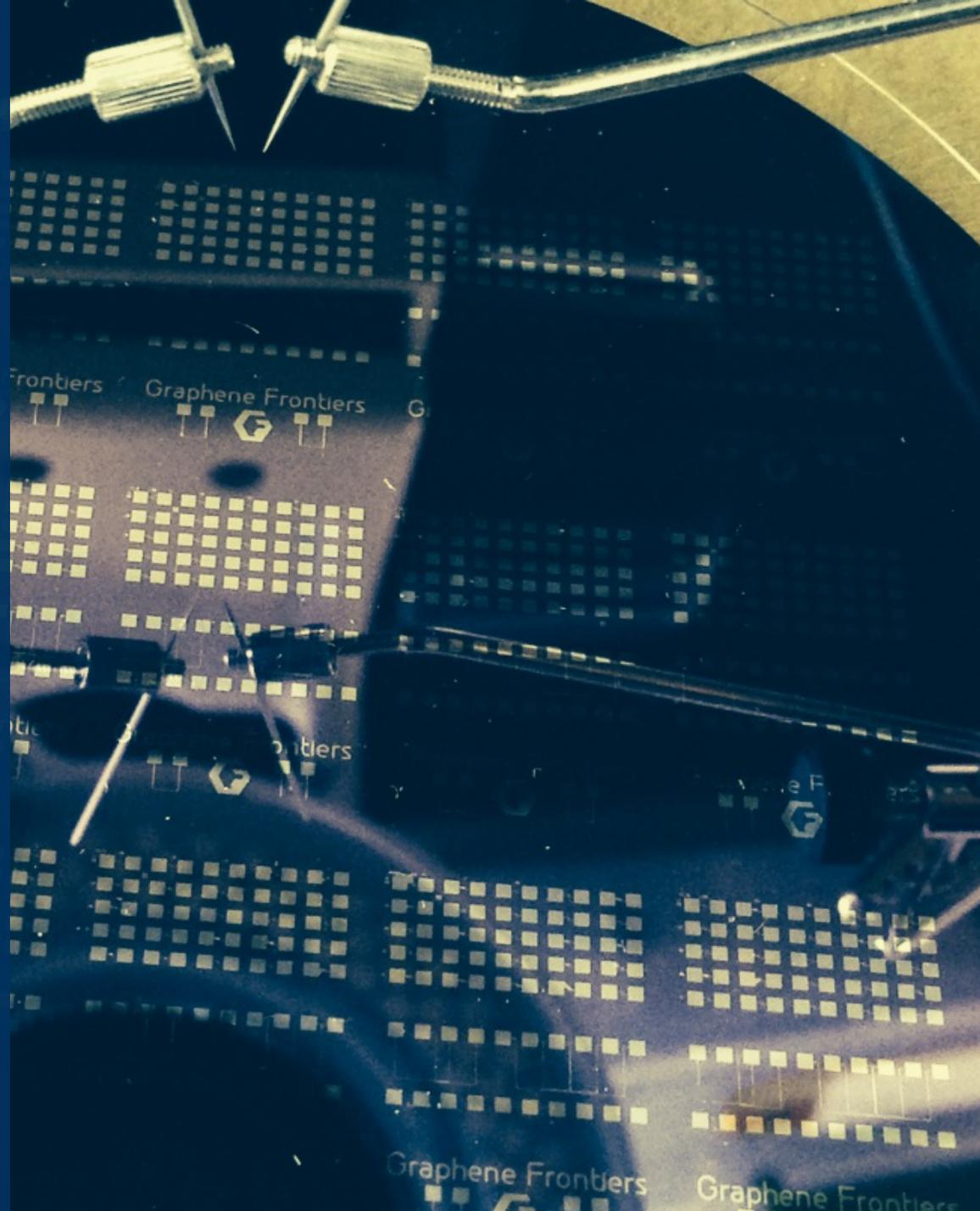
Visit www.nsf.gov/eng/iip/sbir for additional information and first steps.

The June 16th / 18th deadline solicitations are public! Get the proposal in a few days early to practice risk mitigation.

QUESTIONS?

Ask now or send email to:

Glenn Larsen at
glarsen@nsf.gov





SBIR | STTR

THANK YOU

Contact Us:

sbir@nsf.gov

703.292.8050

www.nsf.gov/eng/iip/sbir

[@NSFInnovateSBIR](#)



Grants That Go Beyond Funding

- Recipients receive training in key business areas and mentorship from seasoned Program Directors
- Connection to other small companies performing innovative R&D
- Winning an SBIR/STTR award signals success to investors, partners and customers



Is My Company Eligible?

- Must be a small business or startup with less than 500 employees/affiliates
- Must be located in the United States and at least 51 percent owned and controlled by one or more individuals who are citizens of, or permanent resident aliens in, the United States
- More details: [Eligibility Guide](#).