



Non-Dilutive Funding Map for Startups

Where a startup can get research money, and whether it needs a university or lab.
A free Helikon Labs reference · Version 1.1 · Released October 2026

“SBA does not provide grants for starting and expanding a business.”

U.S. Small Business Administration, sba.gov/funding-programs/grants

There’s no federal grant for being a startup. There’s federal money for doing research the government wants done, and small companies are eligible for it.

Route and official page	What it funds	Who can apply	Award size, as of October 2026	University or lab	Status on 29 Oct 2026
SBIR · 11 agencies sbir.gov/about	R&D an agency needs. Phase I tests feasibility and Phase II develops the work.	A small business that meets the SBIR test, with a PI employed more than half-time by it (rules on page 2).	Up to \$335,937 (Phase I) and \$2,239,578 (Phase II) without SBA approval (16 Oct 2026). NSF caps Phase I at \$305,000.	Helpful	Cycle-based. NSF 4 Nov 2026 and 4 Mar 2027, after an invited pitch (typically 1 to 2 months). NIH 5 Jan and 5 Apr 2027.
STTR · 6 agencies sbir.gov	The same phases, done with a research institution, at USDA, Defense, Energy, HHS, NASA, and NSF.	The small business (SBIR test) does at least 40% of the work and a nonprofit research institution or FFRDC at least 30%, under a written rights agreement.	The same SBA guideline amounts as SBIR.	Required	Cycle-based , on the same agency calendars as SBIR.
AFWERX · Air Force afwerx.com/get-funded	Air and Space Force SBIR and STTR topics, moving to focused open topics (April 2026).	The SBIR test, plus a research institution on STTR topics.	Phase I up to \$323,000 for up to 6 months. Phase II up to \$2.1 million for up to 24 months (October 2026).	Required for STTR	Open. Current release 28 Oct to 25 Nov 2026 (dates subject to change).
Army xTech xtech.army.mil	Prize competitions: cash for pitches, then a chance to propose an Army Phase I.	Small, for-profit, independent U.S. businesses with 500 or fewer employees, including affiliates.	xTechSearch 10: \$1 million in prizes. Only finalists may propose, for up to \$300,000 each.	Helpful	Cycle-based. xTechSearch 10 closed to entries 19 Oct 2026. One competition open to 5 Nov 2026.
NSF I-Corps Teams nsf.gov/funding/initiatives/i-corps	Customer discovery, not research: at least 100 customer interviews in seven weeks.	A U.S. college or university, for a team with an NSF award in the last five years or a Regional I-Corps recommendation.	Up to \$50,000 for 12 months (NSF 25-549), including a \$10,000 participation fee (2026).	It applies	Rolling. Executive summary anytime, then an invited proposal and a cohort.
NSF Translation to Practice NSF 25-540 (nsf.gov)	Moving use-inspired research to market, including licensing and startup formation.	U.S. colleges, universities, and nonprofits, led by faculty or research staff. The Partner track needs a partner, preferably non-academic.	Translate up to \$1.2 million over 3 years. Partner up to \$2 million over 4 years. Explore, about \$600,000, extends a lab’s current NSF award (2026).	It applies	Open. Translate and Partner 17 Nov 2026, then 18 May 2027. Explore anytime, by program officer invitation.
NSF Regional Innovation Engines NSF Engines (nsf.gov)	Regional coalitions built around a technology area, each running its own programs for startups in its region.	Startups work with the Engine in their region and field, not through NSF. Each Engine sets its own terms.	NSF funds each Engine with \$15 million for 2 years and up to \$160 million over 10. The Engine decides what a startup receives.	Not needed	Varies by Engine. 12 more named 14 July 2026. New founders can ask to join RETI (WV and western PA).
Manufacturing USA manufacturingusa.com/opportunities	Project calls from 18 institutes on manufacturing technology topics, proposed by member teams.	Members only, at the two institutes we checked (ARM Institute, 2026, and America Makes, 2024, which also wanted a 50% non-federal cost share).	Set call by call. The network’s 2022 study reports one institute putting over \$1 million into a startup through calls and awards.	Helpful	Cycle-based , by institute. The latest listed call closed 16 Oct 2026.
State SBIR match SBIR state match list, nida.nih.gov	A state top-up on a federal award you’ve won. NC also reimburses part of a Phase I proposal’s cost, up to \$12,000.	Usually companies based in the state that hold the award. NC also needs 51% of the Phase I work done there. Pennsylvania isn’t on NIH’s list.	NC: 50% of Phase I, up to \$75,000 (July 2026 to June 2027). Illinois: up to \$75,000 (Phase I) and \$250,000 (Phase II). Kentucky: up to \$150,000 (Phase II).	Not needed	Varies by state. NC and Illinois: open to 30 June 2027 or until funds run out.
Ben Franklin Technology Partners benfranklin.org	Investment, not a grant, in early-stage Pennsylvania technology companies.	Companies in a partner’s region. Southeastern PA: able to match dollar for dollar.	Southeastern PA: \$50,000 to \$500,000, up to \$1 million in all. Innovation Works (Southwestern PA): \$150,000 to \$250,000, up to \$800,000.	Not needed	Rolling or set review cycles, by partner and sector.

What this map leaves out: federal R&D programs beyond these routes, foundation and philanthropic grants, prize competitions other than the Army’s, R&D tax credits, and most states’ programs. Page 2 has the rules that decide SBIR or STTR, the order to work in, and the sources.

The order to work in (Helikon practice)

1. Register early. SAM.gov, the SBIR.gov company registry, and agency systems can take 6 weeks or more (NIH).
2. From a university lab? Start with I-Corps, through the university. If the lab has a current NSF award, ask about Translation to Practice.
3. Decide who the PI is first. A full-time faculty PI rules out SBIR (barring a rare written deviation) and points to STTR at an agency that allows a university PI: NIH does, NSF doesn't.
4. Pick the agency whose mission fits and read its current solicitation. NSF needs an invited Project Pitch first, typically 1 to 2 months.
5. Defense-relevant? Watch AFWERX releases and xTech competitions too.
6. Check your state's match before you submit (NC reimburses part of the proposal cost), and apply as soon as the award arrives.
7. Manufacturing technology? Weigh institute membership against the calls you'd bid.
8. Treat Ben Franklin-style money as investment.

SBIR or STTR: the rules that decide it

The company. Both programs use the SBIR test: a for-profit business with a U.S. place of business, 500 or fewer employees including affiliates, more than 50% owned and controlled by U.S. citizens or permanent residents (or other owners the rule allows), at the time of award (13 CFR 121.105 and 121.702). An investor that controls the company, usually with more than half its voting equity (SBA can find control at 40% or more), is an affiliate, and its employees count.

The PI. On SBIR, more than half the PI's employment is with the company at award and for the whole project, so a full-time faculty member can't be the PI without dropping below half-time at the university or a rare written deviation. On STTR, the PI can work mainly for either side, with agency conditions. NIH allows a university PI with at least 10% effort and a formal tie to the company. NSF requires 51% at the company and a co-PI from the institution.

The work. SBIR lets you subcontract up to a third of Phase I and half of Phase II, to a university, a lab, or a corporate partner. STTR needs at least 40% at the company and 30% at the research institution, with no deviations.

The rights. STTR needs a written allocation of rights agreement with the institution, negotiated before award, submitted with the proposal, and certified, so check what your solicitation asks for.

The programs. SBIR adds Commerce, Education, Homeland Security, Transportation, and EPA to the six STTR agencies. Both were reauthorized on 13 April 2026 through 30 September 2031 (Public Law 119-83).

SBA Policy Directive (2023) §6(a)(2) and (3), §8(d). NIH Grants Policy Statement 18.5. NSF 26-510. Not legal advice.

What the research says about SBIR awards. Lerner (1999): SBIR awardees outgrew matched firms, but only where venture capital was active. Wallsten (2000): the grants crowded out firm-financed R&D about dollar for dollar. Howell (2017): a Department of Energy Phase I award roughly doubled a firm's chance of later venture capital.

About Helikon Labs

Helikon Labs provides strategic consulting and technology for research and development. For the researchers, companies, tech transfer offices, students, and investors who take part in cross-organizational research collaborations, the company develops solutions for the friction and misalignment that cause these partnerships to underperform. Founded in 2024, Helikon Labs combines original primary research on innovation management, a four-phase partnership framework (the Helikon Method), and an R&D collaboration platform that matches research partners by their expertise and manages the partnership lifecycle in one place. Its consulting practice and a tools and assessments store complement the platform. Learn more at helikonlabs.com.

Related resources

- The full article, Research grants for startups, at helikonlabs.com/blog/research-grants-for-startups.
- The SBIR and STTR university partner guide, at helikonlabs.com/guides/sbir-sttr-university-partner.
- The free SBIR and STTR Partner Readiness Checklist, at helikonlabs.com/templates/sbir-sttr-partner-checklist.
- Office Hours, at helikonlabs.com/consulting/office-hours, or a free 30-minute scoping call, at helikonlabs.com/consulting/scoping-call.
- The Helikon Labs platform, to find a research partner by their published work and run the proposal, its contracts, and its milestones as a shared project with your partner. Start free at app.helikonlabs.com.

Disclaimer. Helikon Labs is not a law firm, and this map is not legal or financial advice. It is provided for information only. Program rules, amounts, and dates change, so confirm each one at the official page and in the current solicitation before you apply. Helikon Labs makes no representation that the map is complete for any particular company or program, and disclaims all liability for damages, whether direct, consequential, incidental, or special, arising from its use.

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Sources, checked 29 October 2026. The program pages printed on page 1 and in the header are sources too. SBIR.gov. Participating agencies. sbir.gov/participating-agencies · SBA (2023). SBIR and STTR Policy Directive. sbir.gov/sites/default/files/documents/SBA%20SBIR_STTR_POLICY_DIRECTIVE_May2023.pdf · 13 CFR 121.105. ecfr.gov/current/title-13/section-121.105 · 13 CFR 121.702. ecfr.gov/current/title-13/section-121.702 · Public Law 119-83 (2026). govinfo.gov/content/pkg/PLAW-119publ83/html/PLAW-119publ83.htm · NIH SEED. Program basics. seed.nih.gov/small-business-funding/small-business-program-basics/understanding-sbir-sttr · NIH. Standard due dates. grants.nih.gov/grants-process/submit/submission-policies/standard-due-dates · NIH SEED. Registrations. seed.nih.gov/small-business-funding/how-to-apply/before-you-apply/register-company · NIH Grants Policy Statement 18.5. grants.nih.gov/grants/policy/nihgps/html5/section_18/18.5_small_business_innovation_research_and_small_business_technology_transfer_programs.htm · NSF 26-510 (2026). nsf.gov/funding/opportunities/small-business-innovation-research-small-business-technology/nsf26-510/solicitation · NSF SBIR. Project Pitch. seedfund.nsf.gov/apply/project-pitch-information/ · AFWERX webinar Q&A (2026). afwerx.com/wp-content/uploads/26-0423-SBIR_STTR-Reauthorization-Webinar-QA_Final-1.pdf · xTechSearch 10 RFI (2026). xtech.army.mil/wp-content/uploads/2026/09/xTechSearch-10-Competition-RFI_Final-1.pdf · NSF 25-549 (2025). nsf.gov/funding/opportunities/nsf-national-innovation-corps-teams-nsf-national-i-corps-tm/nsf25-549/solicitation · NSF. I-Corps National Teams. nsf.gov/funding/initiatives/i-corps/national-teams-applicants · NSF 25-540 (2026). nsf.gov/funding/opportunities/nsf-ttp-national-science-foundation-translation-practice/nsf25-540/solicitation · NSF (2026). 12 new Engines. nsf.gov/news/nsf-awards-12-new-regional-innovation-engines-fuel-research · Technical.ly (2026). RETI startups. technical.ly/civics/reti-appalachia-energy-grid-startups/ · Manufacturing USA (2022). Startups study. manufacturingusa.com/studies/how-manufacturing-usa-network-nurtures-startup-companies-across-innovation-gap · America Makes (2024). IMPACT 2.0 RFP. americamakes.us/wp-content/uploads/2024/04/IMPACT-2.0-Project-Call-RFP-Part-A-REV.pdf · ARM Institute. Active project calls. arminstitute.org/active-project-calls/ · NIDA. State matching funds. nida.nih.gov/funding/small-business-innovation-research-sbir-technology-transfer-sttr-programs/resources/state-matching-funds · One NC match 2026-27. commerce.nc.gov/oncsbp-matching-solicitation-fy-2027/download?attachment · One NC incentive 2026-27. commerce.nc.gov/oncsbp-incentive-solicitation-fy-2027/download?attachment · Illinois NOFO 2419 (2026). omb.illinois.gov/public/gata/csfa/FileView.aspx?nofo=2419 · Kentucky match. newkentuckyhome.ky.gov/Entrepreneurship/SBIR_STTR · Ben Franklin Southeastern PA. sep.benfranklin.org/investors/how-we-invest/ · Innovation Works. Seed fund. innovationworks.org/funders/seed-fund/ · Lerner (1999), J. Business 72(3). doi.org/10.1086/209616 · Wallsten (2000), RAND J. Economics 31(1). doi.org/10.2307/2601030 · Howell (2017), AER 107(4). doi.org/10.1257/aer.20150808.