

SBIR/STTR Bootcamp October 25, 2025







Innovate Mississippi University of Southern Mississippi



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SBIR/STTR 101 and Beyond

Small Business Innovation Research (SBIR) Small Business Technology Transfer (STTR)

Federally Mandated Set Asides



Small Business Innovation Research (SBIR)

- → 3.2% of the extramural research budget for agencies with a budget greater than \$100 M per year
 - ~\$4 billion minimum spend each year

Small Business Technology Transfer (STTR)

- - ~\$500 million minimum spend each vear

SBIR Program Goals



- Meet federal research and development needs
- → Increase private-sector commercialization of innovation derived from federal research and development funding
- Stimulate technological innovation
- → Foster technology transfer through cooperative R&D between small businesses and research institutions (STTR)

What does an SBIR/STTR firm look like AST

- Company must be for profit, U.S. owned/operated, and under 500 people
- Work must be done in the U.S.

What does an SBIR/STTR project look



- like Scientific research: the process by which the PI and team study various phenomenon using systematic methods of collecting, analyzing, and interpreting data prototype, test and verify and validate results.
 - Focus is on performing R&D Not purchasing equipment, commercializing a technology that has already been developed, or one that has very low risk and only needs capital
 - Workplan timeline approximately 3 to 4 years over the two phases.

Tip: Start by scoping out the project's entire workplan.

Three Phase Process



Phase I

Concept Development 6 months – 1 year ~ \$50,000 – 250,000+

Phase II

Prototype Development 24 months ~ \$500,000 – 1.5M

Phase III

Commercialization
Non SBIR funding

What work can be done for the allotted amount and time.

How far can the prototype be developed and tested for the allotted amount and time.

Project Workplan - Timeline

What does a proposal look like?



- Technical Work Plan The technical narrative is the core of the proposal upon which it will be judged.
- Commercialization Plan Important but secondary to the technical narrative.
- Cost Proposal/Budget Not what the proposal will be judged on but can prevent award if not realistic.
 Costs should follow the workplan.

Tip: Start with the budget – What are you going to spend the government funds on?



SBIR & STTR Participating Agencies

Department of Agriculture (USDA)

Department of Commerce (DoC) NIST, NOAA

Department of Defense (DoD)

Department of Education (ED)

Department of Energy (DOE)

Dept of Health and Human Services (HHS) NIH, FDA, CDC, ACL

Department of Homeland Security (DHS)

Department of Transportation (DOT)

Environmental Protection Agency (EPA)

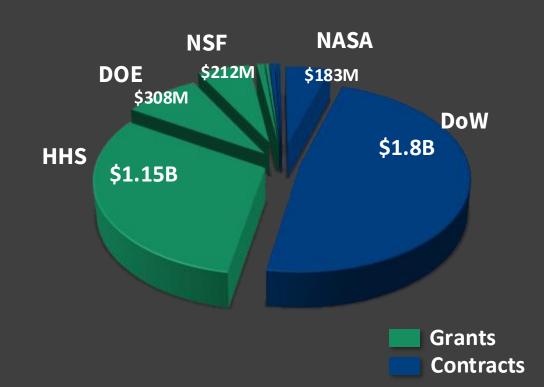
National Aeronautics and Space Administration (NASA)

National Science Foundation (NSF)

FY2023 SBIR/STTR Budgets by



Agencies Gency	Budget
Department of War (DoW, aka DoD)*	\$1.80 B
Department of Health and Human Services (HHS)**, including the National Institutes of Health (NIH)	\$1.15 B
Department of Energy (DOE), including Advanced Research Projects Agency – Energy (ARPA-E)	\$308 M
National Science Foundation (NSF)	\$212 M
National Aeronautics and Space Administration (NASA)	\$183 M
U.S. Department of Agriculture (USDA)	\$30 M
Department of Homeland Security (DHS)	\$17 M
Department of Commerce: National Oceanic and Atmospheric Administration (NOAA)	\$9.5 M
Department of Education (ED)	\$8.4 M
Department of Transportation (DOT)	\$5.2 M
Department of Commerce: National Institute of SBudgeted Amount; other Agencies) Obligated	\$3.9 M
Amountmental Protection Agency (EPA)* ** Provides grants and contracts	\$3.6 M



SBIR: \$4.5

Billion

STTR: \$500

NA:11: - --

Contracting Agencies vs. Granting



Agencies Contracting Agencies

- Agency establishes plans, protocols, requirements
- Highly focused topics
- Procurement mechanism
- More fiscal requirements
- Invoiced on progress
- Binding agreement between a buyer and seller for goods/services

DoD, DHS, NASA, EPA, DOT, ED

Granting Agencies

- Principal Investigator initiates approach
- Less-specified topics
- Assistance mechanism
- More flexibility
- Allows upfront payment
- Funds support a public purpose, best efforts in research

NSF, DoE, USDA, NIST, NOAA

Contracting and Granting: **HHS** (mostly grants)

SBIR Reauthorization – Status Update













SBIR/STTR Programs Have Lapsed: What's Next for Small Businesses?

SBIR Reauthorization – Status Update



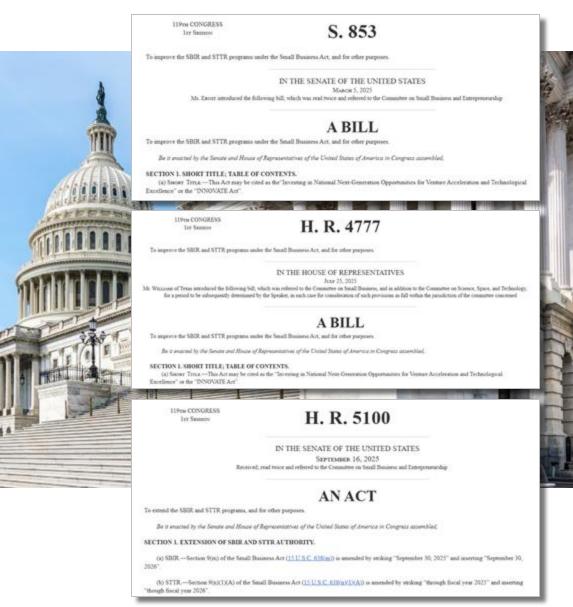


- No new SBIR-STTR solicitations will be released until reauthorization
 - What were the upcoming solicitation timelines are now disrupted.
 - Degree of impacts and how the agencies will address them will depend on how long till reauthorization occurs.
- Compounding this is the Government Shutdown!
 - Current Phase 1 and Phase 2 contract awards likely have received "stop work" orders. At best, some might be allowed to work but payments likely to be significantly delayed.
 - Current Phase 1 and Phase 2 grant awards may in most cases continue but payments likely to be significantly delayed.
 - What happens to Phase 1 and Phase 2 proposals that were under review at the time of the shutdown? **Who knows!** What happens to the Phase 1s depend largely on reauthorization. What happens to the Phase 2s depends largely on passage of the FY 26 budget/CR how much money does the agency get and when does it get it.
 - Add on top of this the ongoing reorganization of some agencies and reductions in force (RIF) that are occurring.





SBIR Reauthorization – Status Update 🖳



	INNOVATE ACT	(((•))) Middle Ground	SBIR REAUTH
Status	Reauthorize with reforms	Short bridge reauth (24 months) with targeted reforms that auto- sunset for review	Pushes clean extension (1-year) or permanent reauth without major new limits
SBIR Mills	Explicit crackdown; centerpiece of reform	Define "SBIR Mills" by objective transition data; require remediation plans	Opposes blunt tools that would box out proven performers
Š Life Time Cap	~\$75M lifetime cap per firm across SBIR/STTR	Cap with waivers: baseline cap + agency waiver when mission- critical	No lifetime cap
Commercialization	Tighten benchmarks; stronger linkage to non- SBIR revenue	Tiered benchmarks by maturity + track- specific benchmarks	Prefers status quo benchmarks; focus on continuity
Experienced Winner	Narrow eligibility if low transition despite many awards	Keep eligibility if Phase III/Production or commercial revenue in last 36 months.	Protect experienced firms delivering to national security



SBIR Reauthorization – Status Update



The Boston Globe in a recent article on SBIR reauthorization and the current impasse (the primary blocker being the "SBIR Mill" issue) noted that the program expired amid a 'showdown" between Senator Markey (D) and Senator Ernst (R), with Markey favoring a "clean one-year extension" while Ernst "wants to ensure some reforms get on the books."

	INNOVATE ACT	(((e))) Middle Ground	SBIR REAUTH
New-Entrant Access	Indirect (via caps/benchmarks reducing crowd-out)	Set-aside for first-timers (e.g., 15–20% of awards)	Emphasizes keeping program broad and competitive
Transparency	Stronger commercialization yardsticks; non-SBIR revenue parity	Public transition dashboard (Phase I→II→III, production, commercial revenue).	Cautions against forcing hard-to-secur private capital
Capital Alignment	Stronger commercialization yardstick	Graduation + optional match: require partial private match or show production contract.	Cautions against forcing hard-to-secur private capital
Ace Accountability	Focus on firm behavior	Tie a small share of PEO/PM metrics to SBIR transition rates to create pull from buyers.	Warns against punishing firms for systemic acquisition issues.







What is a Direct to Phase II award, aka DP2/D2P2?



Direct to Phase II was a pilot program, brought about by the SBIR/STTR Reauthorization Act of 2011, that enabled the National Institutes of Health (NIH), the Department of Defense, and the Department of Education to issue a Phase II award to a small business concern that did not receive a Phase I award for research and development for the same project. Direct to Phase II awards were designed for small business concerns, also known as SBCs that had completed Phase I milestones using non-SBIR funds. The Defense Advanced Research Projects Agency, or DARPA, was the first to implement DP2, followed by NIH and the Air Force. In FY17 when the SBIR/ STTR programs were reauthorized, the pilot programs were not addressed and therefore expired. However, through the National Defense Authorization Act authorized of August 2018, the pilot programs were reauthorized and have been expanded across the agencies





Recognizing that it takes a long time to mature a technology, the SBIR/STTR Reauthorization Act of 2011 also allows a Phase II awardee to receive one additional sequential Phase II award, to continue the work of an initial Phase II award. This additional sequential Phase II award has the same guideline amounts and limits as the initial Phase II award – that is, a guideline amount of \$1 million and a limit of \$1.5 million. SBCs that are interested in learning more about the application process for sequential Phase Ils should discuss this with their technical monitor or the SBIR/STTR program manager of the Agency with which they are working.

Can I skip Phase 2? No, but there is a hack!



Unless the topic is designated a DP2, you cannot skip Phase 1. However, at an event this summer DoW SBIR/STTR Director Gina Sims shared a gamechanging insight for innovators. If you've already accomplished most of what the DoW is looking for, you may can propose a very short Phase 1 to move more quickly to Phase 2. Click the link below to see her presentation.

#SBIR #STTR #DoDInnovates #SmallBusinessFunding #Innovation



Can you skip Phase !?

https://www.linkedin.com/feed/update/urn:li:activity:7355945316077948929/



National Science Foundation Phase IIB

The purpose of Phase IIB funding is to provide additional R&D funds to further accelerate commercialization of the Phase II project. It requires a qualifying third-party financial investment/commitment to have been received as a direct consequence of the NSF funded Phase I/Phase II research outcomes. The third-party funding should serve to accelerate commercialization activity of the NSF funded Phase II award.



NIH Phase IIb Bridge Award



National Institutes of Health (NIH) accepts
Phase IIb SBIR grant applications from Phase II
SBIR awardees to continue the process of
developing technologies that ultimately require
federal regulatory approval. The Phase IIb
grants should allow small businesses to get to a
stage where interest and investment by third
parties is more likely, and/or the technology has
advanced to the commercialization phase.









1)

PHASE I

Feasibility Study
Open & Specific Topics

OPEN TOPIC

- Up to \$75K per award (\$110K for STTR)
- · 3-month period of performance
- · "Open door for innovation"

SPECIFIC TOPIC

- Up to \$180K per award
- · 6-month period of performance
- · Built in DAF Customer

2

PHASE II

Prototype Open, Specific & Direct to

Phase II (D2P2) Topics

OPEN TOPIC

- Up to \$1.25M per award (\$1.8M for STTR)
- Up to 21-month period of performance
- Customer memorandum required
- Matched funding encouraged
- D2P2 opportunity if customer is known

SPECIFIC TOPIC

- Up to \$1.8M per initial award
- Up to 24-month period of performance
- Built in DAF Customer
- D2P2 opportunities

https://afwerx.com

TACFI/ STRATFI

Tactical Funding Increase (TACFI) Strategic Funding Increase (STRATFI)

- Notice of Opportunity
- TACFI \$375K \$1.9M SBIR/STTR funds
- STRATFI \$3M \$15M SBIR/STTR funds
- Defense only or dual use matching options
- Private Investor Opportunities

4

3

PHASE III

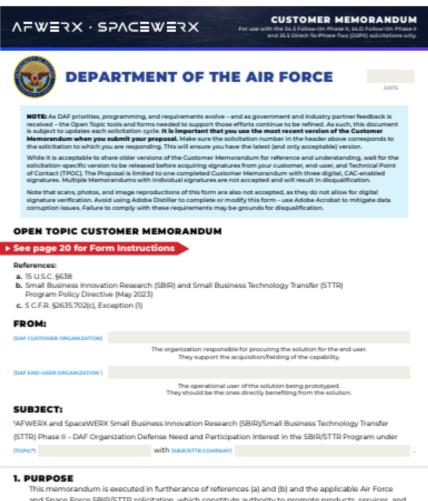
Transition/Commercialization

- Continuation, derivation, or extension of SBIR Phase I, II, or STRATFI/TACFI work
- · Contract with Government or Industry customer
- Utilizes non-SBIR funds

AFWERX Open Topic Requirement



The **Customer Memorandum** is a non-binding document that conveys the Department of the Air Force (DAF) or Joint customer's/end-user's interest in helping to transition your technology to the warfighter. A Customer Memorandum is required when submitting an Open Topic Phase II or Direct to Phase II (D2P2) proposal.



and Space Force SBIR/STTR solicitation, which constitute authority to promote products, services, and enterprises within the meaning of reference (c). The purpose of this memorandum is to document interest from a Department of the Air Force organization(s) in working with AFWERX and SpaceWERX an open topic SBIR/STTR Phase III awardee on a proposed Phase III effort. See page 20 for form instructions.

SBIR Data Rights



SBIR data rights protect the intellectual property (IP) developed under SBIR and STTR programs by giving the government a limited, non-exclusive license to use the data while preventing public disclosure. The protection period is a fixed 20 years from the award date, after which the government receives "government purpose rights" instead of unlimited rights. SBIR data includes all recorded, technical information (like software, reports, and drawings) generated under an SBIR/STTR funding agreement that is properly marked.



SBIR Data Rights and Phase 3



Phase III status is the admission ticket to receiving SBIR Data Rights in a funding agreement. That is why it is so critical to recognize a Phase III requirement, and to insist that SBIR rights be accorded a Phase III. In addition to SBIR Data Rights, Phase III status brings with it:

- the right to sole-source contracts;
- exemption from SBA size standards for a procurement;
- no limits on the dollar size of a Phase III procurement;
- a right to the Phase III mandate, by which the SBIR firm has a right to be awarded a future Phase III award to the greatest extent practicable;
- the right to receive subcontracts for Phase III work on a sole-source basis; and
- the ability to pursue research, research and development, services, products, production, or any combination of those under a Phase III.

Navy SBIR Transition Program (STP)





https://navystp.com/

What is APFIT?



The Accelerate the Procurement and Fielding of Innovative Technologies (APFIT) is a program, started in Fiscal Year 2022, to provide procurement funding for innovative projects that have completed development and are ready to transition into operational use. SBIR innovations are often a good candidate for APFIT.

Funding amounts of \$10M-\$50M are awarded to projects with small business or non-traditional performers to accelerate initial production and reduce the overall procurement timeline. The Office of the Under Secretary of War for Research & Engineering, OUSW(R&E), conducts a competitive down-select process each year using evaluation criteria including impact to the warfighter, sustainment support and applicability to the broader DoW.

https://ac.cto.mil/apfit/





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Lu Lu Eva Garland Consulting



Developing a Winning Proposal

Lu Lu, Ph.D.

October 24, 2025

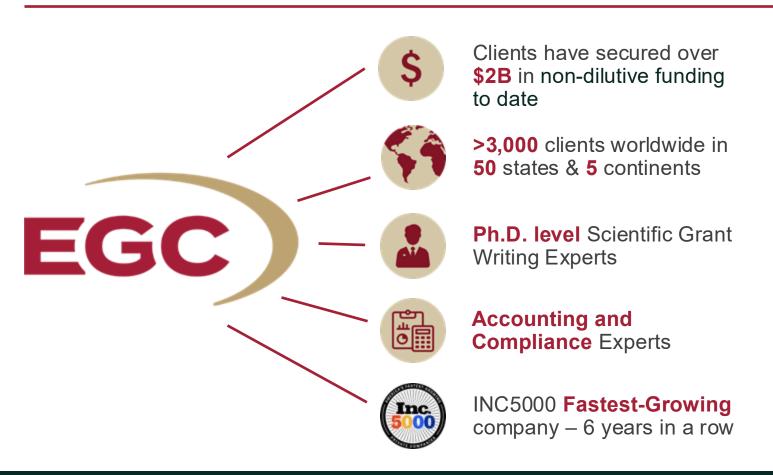
ABOUT EGC

Supporting entrepreneurs and researchers in funding transformative technologies



OUR MISSION:

Obtaining & managing non-dilutive funding to support scientific advancement





Bestselling books on Amazon



"I have been with them for nearly a decade and attest their unmatched

ttest their unmato quality!"

Anthony Dellinger, Kepley Biosystems



Career Highlights

- Ph.D. in Chemistry from the Chemistry Department, Louisiana State University, Baton Rouge, LA
- Postdoctoral Training from Mechanical Engineering Department, Louisiana State University, Baton Rouge, LA
- Co-founder of a startup in smart polymer space
- Funded by NSF SBIR Phase I and Phase II
- Serves on NSF SBIR/STTR Review Panel
- Expertise in technology assessment, strategic planning, and proposal preparation
- Helped clients secured >\$170M in non-dilutive funding



Agenda



- > DoW (DoD) and NASA SBIR/STTR Program Budget and Critical Technology Areas
- ➤ DoW and NASA SBIR/STTR Program Announcements
- Develop Your Winning Proposal
- Networking Opportunities
- ➤ Q&A

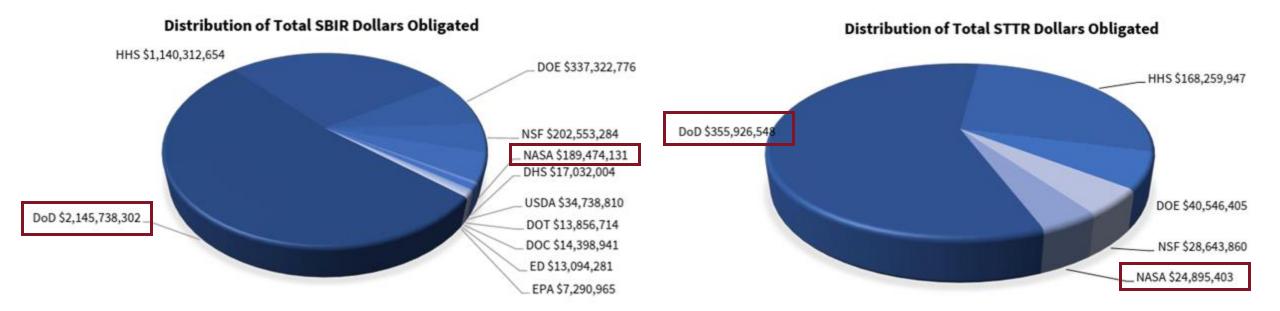
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SBIR/STTR Budget Distribution Among Agencies





Source: SBA 2022 Annual Report

DoW SBIR/STTR Participating Components

























United States Special Operations Command (USSOCOM)

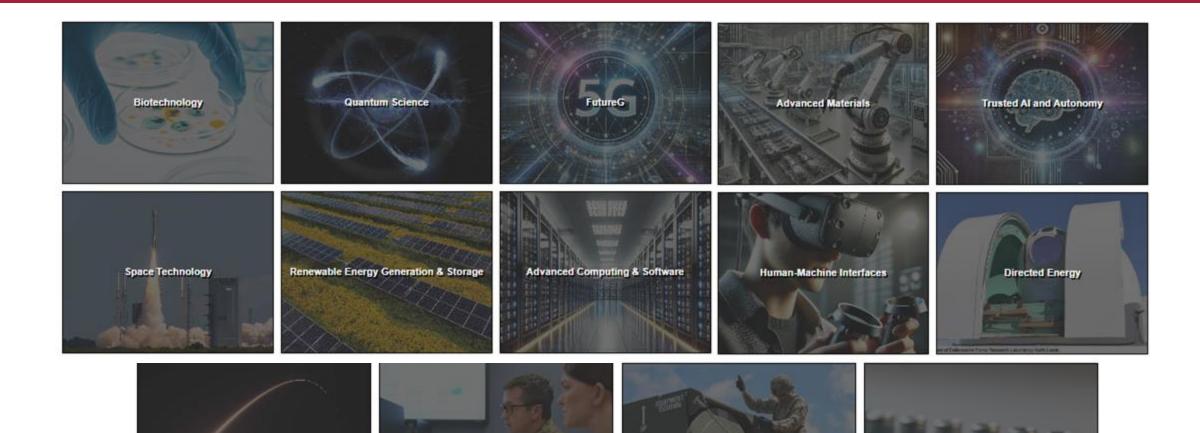


Defense Advanced Research Projects Agency (DARPA)

Hypersonics

DoW SBIR/STTR Program Critical Technology Areas





Integrated Network System-of-Systems

Integrated Sensing & Cyber

Microelectronics

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DoW SBIR/STTR Program Announcements



- DoW releases SBIR and STTR Annual BAAs to allow DoW Components the flexibility to release topics throughout the fiscal year.
- ➤ Topics released under Annual BAAs are published at least 45 days prior to the proposal submission deadline and have their own **pre-release**, **open**, and **close** dates.
- New for FY2025: New DoW SBIR/STTR topics are released on the first Wednesday of every month!
- ► The DoW SBIR/STTR programs do NOT accept unsolicited proposals.

FY 2026 DoD SBIR/STTR Solicitation Schedule				
Solicitation Cycle	Announcement Period			
Solicitation Cycle	Pre-Release Date	Open Date	Close Date	
SBIR/STTR BAA & CSO Release 1	Oct 1, 2025	Oct 22, 2025	Nov 19, 2025	
SBIR/STTR BAA & CSO Release 2	Nov 5, 2025	Dec 3, 2025	Jan 7, 2026	
SBIR/STTR BAA & CSO Release 3	Dec 3, 2025	Jan 7, 2026	Feb 4, 2026	
SBIR/STTR BAA & CSO Release 4	Jan 7, 2026	Jan 28, 2026	Feb 25, 2026	
SBIR/STTR BAA & CSO Release 5	Feb 4, 2026	Feb 25, 2026	Mar 25, 2026	
SBIR/STTR BAA & CSO Release 6	Mar 4, 2026	Mar 25, 2026	Apr 22, 2026	
SBIR/STTR BAA & CSO Release 7	Apr 1, 2026	Apr 22, 2026	May 20, 2026	
SBIR/STTR BAA & CSO Release 8	May 6, 2026	May 27, 2026	Jun 24, 2026	
SBIR/STTR BAA & CSO Release 9	Jun 3, 2026	Jun 24, 2026	Jul 22, 2026	
SBIR/STTR BAA & CSO Release 10	Jul 1, 2026	Jul 22, 2026	Aug 19, 2026	
SBIR/STTR BAA & CSO Release 11	Aug 5, 2026	Aug 26, 2026	Sep 23, 2026	
SBIR/STTR BAA & CSO Release 12	Sep 2, 2026	Sep 23, 2026	Oct 21, 2026	

NASA SBIR/STTR Program Announcements



Traditional solicitation cycle

NASA SBIR/STTR Phase I "Mainline" Solicitation

- Released in January
- Contained the majority of subtopics for the program year

NASA SBIR Ignite Phase I Solicitation

- Released in the summer
- Contained the remainder of subtopics for the program year



NASA SBIR/STTR BAA

- Targeted for release in October 2025
- Outlines proposal guidelines and requirements

2026 Appendix A

- Targeted for release in November 2025
- Contains a small number of SBIR subtopics for proposal

2026 Appendix B

Targeted for release in early 2026



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- > DoW and NASA SBIR/STTR Program Budget and Critical Technology Areas
- > DoW and NASA SBIR/STTR Program Announcements
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Steps to Get Started with an SBIR/STTR Application



Pre-work:

- Determine Eligibility
- Register your Small Business

Develop your winning proposal:

- Explore Solicitation Topics and Ask Questions
- Build a Winning Team
- Understand the Evaluation and Selection Process
- Prepare and Submit your Proposal

Explore Solicitation Topics and Ask Questions



▶ Both the general **DoW BAA** and **Component-specific instruction document** should be reviewed for eligibility requirements and proposal submission instructions.

DoW Annual BAA

DEPARTMENT OF DEFENSE

Small Business Innovation Research (SBIR) Program

SBIR 25.4 Annual Program Broad Agency Announcement (BAA)
Release 4

Amendment 1 (December 4, 2024)

The purpose of amendment 1 is to clarify section 2.5 Due Diligence Program to Assess Security Risks.

IMPORTANT DATES

	Pre-Release	Open	Close
Release 1	Oct 02, 2024	Oct 23, 2024	Nov 20, 2024
Release 2	Nov 06, 2024	Dec 04, 2024	Jan 08, 2025
Release 3	Dec 04, 2024	Jan 08, 2025	Feb 05, 2025
Release 4	Jan 08, 2025	Jan 29, 2025	Feb 26, 2025

Component-Specific Instructions

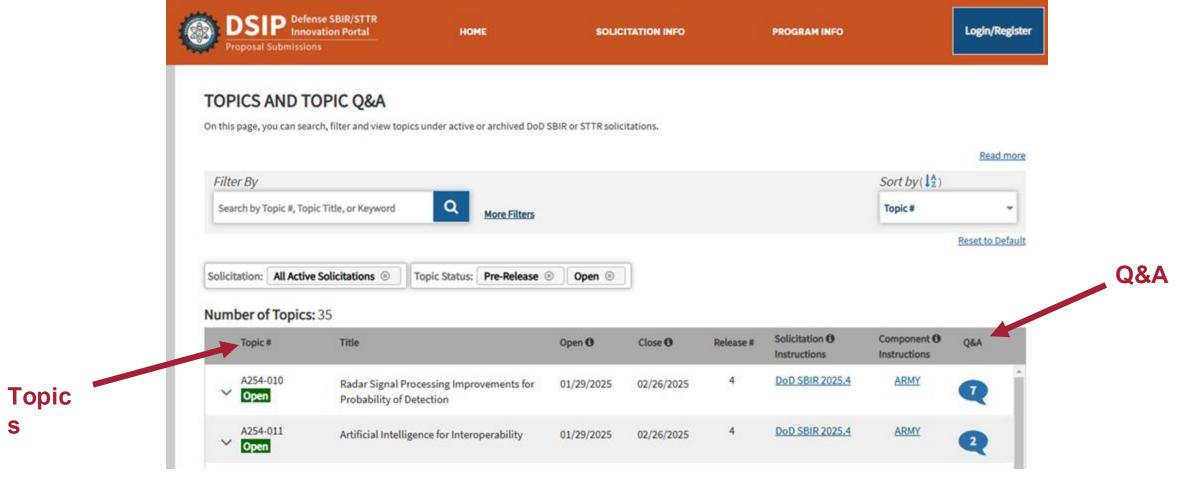
DEPARTMENT OF THE ARMY

DoD 25.4 Small Business Innovation Research (SBIR)
Annual Broad Agency Announcement (BAA)
Component-Specific Proposal Instructions
Release 4

To the extent possible, all Department of the Army component specific text follows the same numbering as the related sections in the DOD SBIR 25.4 Program BAA. Supplemental numbering is used only when the text cannot be integrated intelligibly with the DoD SBIR 25.4 Program BAA counterpart.

Explore Solicitation Topics and Ask Questions





Build a Winning Team



The team that you assemble is crucial and should demonstrate that the team has the necessary expertise, experience, and ability to carry out the proposed project.

Principal Investigator (PI)

- ► The key individual designated by the applicant to direct the project. The PI must be knowledgeable in all technical aspects of the grant application and be capable of leading the research effort.
- ► For SBIR, the PI's primary employment (> 20 hours per week) will be with the small business at the time of award.
- ► For STTR, the PI's primary employment (> 20 hours/week) will be with either the small business or the Research Institution.

Collaborators

- Consultants and subcontractors can be an extremely valuable resource to small businesses applying for SBIR or STTR.
- ► These collaborations can provide needed expertise, equipment and facilities, and demonstrate to proposal reviewers that the small business has the ability to carry out the project. Such resources are extremely important for small businesses that may not have the necessary facilities for their research or significant numbers of qualified experts on staff.

Understand Evaluation and Selection Process



DoW SBIR and STTR proposals are evaluated based on the criteria outlined below. Proposing firms will be notified of selection or non-selection status for an award within 90 days of the proposal submission deadline.

- ► The soundness, technical merit, and innovation of the proposed approach and its incremental progress toward topic or subtopic solution.
- ➤ The qualifications of the proposed principal/key investigators, supporting staff, and consultants. Qualifications include not only the ability to perform the research and development but also the ability to commercialize the results.
- ► The potential for commercial (government or private sector) application and the benefits expected to accrue from this commercialization.

Understand Evaluation and Selection Process



NASA SBIR and STTR program conducts a multi-stage review process. Evaluation Rubrics available in the solicitation.

- ► Administrative review and proposal responsiveness
- ► Commercial Potential
- ▶ Technical Merit
- ► Price Evaluation
- ► Panel Review
- ▶ Selection

Craft A Compliant and Compelling Story



Complete

All components present, responsive to the solicitation

Clear

The reviewers fully understand your proposal

Concise

Use brief and precise language (important for page limits!)

Consistent

Uniform terminology and style throughout

Correct

- Both factually (obviously) and grammatically correct
- Considerate
- Think of your reader and make it easier for them to grasp

Convincing

The reviewer buys what you're selling



Significance

> Define the problem

- What is the specific unmet need you're targeting? Why is it important?
- What is the impact of the unmet need (economic, societal, health, defense)?

> What are the current solutions for this problem?

- Why are they ineffective? Or what aspect of the current solutions is ineffective?
- Ideally, these issues are being solved by your solution.

> Provide as many specifics as possible and reference your sources

- > Specific number of people affected, specific dollar amount of the impact, specific issues with current approaches, specific amount of increased risk
- > Don't be afraid to **bold**, <u>underline</u>, and/or *italicize* key information



Solution

- > What is your proposed solution to address the unmet need?
- > Why is it a better solution than current approaches? Provide specifics.
 - Describe other solutions and their limitations.
- What differentiates your solution from everything else?
- > Clearly indicate the innovation of your solution. Use **bullet points**, **figures**, **and tables**.



Technical Objectives and Statement of Work

- > Break the project into several objectives.
- > Describe what tasks are planned, how and where the work will be conducted.
- Include a schedule of major events and the final product(s) to be delivered.
- > The methods planned to achieve each objective or task should be discussed **explicitly** and in detail.



Commercialization Strategy

- Describe your strategy for commercializing this technology in DoW, other Federal Agencies, and/or private sector markets.
- Provide specific information on the market need the technology will address and the size of the market.
- ➤ Include a **schedule** showing the quantitative commercialization results from the project that your company expects to achieve.



Environment

> Facilities/Equipment

 Use these to demonstrate you have the necessary resources to complete the project.

> Subcontractors/Consultants

Make sure no holes in expertise based on the proposed scope of work.

> Take-Home Points

- Demonstrate you can do the work:
 - That you have sufficient numbers of committed people/partners with expertise.
 - That you've budgeted appropriately for the work.

Take-Home Points



- > Start early! It's going to take a lot of time and revisions (with input from others!).
- > Tell a **story** that guides the reviewer and highlights critical points.
- > Lead the reviewer through the proposal using **headings** and subheadings.
 - Use the DoW's template for Technical Volume.
- > Make your proposal as clear, concise, and easy to understand as possible.
- ➤ Have someone else read your proposal to catch gaps in the logical flow or identify areas where they have questions.

Agenda



- > DoW and NASA SBIR/STTR Program Budget and Critical Technology Areas
- > DoW and NASA SBIR/STTR Program Announcements
- > Develop Your Winning Proposal
- > Networking Opportunities
- > Q&A

Opportunities for Networking



TechConnect World Innovation Conference & Expo



- Includes the annual SBIR/STTR Innovation Conference
- Accepting abstracts for oral presentations through November 7
- Meeting Date: March 10 12, 2026
- Meeting Location: Raleigh, NC

Military Health System Research Symposium (MHSRS)





- Usually accepting abstracts for research presentations through mid-February
- Anticipated Meeting Date: August 2026
- Anticipated Meeting Location: Kissimmee, FL

Opportunities for Networking



- ► The goal of DARPA Connect is to broaden DARPA's reach and stimulate growth and collaboration with small businesses and education institutions new to the national security space.
- ▶ In partnership with the Applied Research Institute (ARI), DARPAConnect is hosting pop-up events in a few cities across the U.S. as well as education opportunities, workshops, a mentor/ambassador component, and other outreach efforts.
- ▶ If interested, email <u>darpaconnect@darpa.mil</u> to join the contact list.



Key Takeaways



- Watch funding opportunity announcement pages
 - Start project planning & partner outreach as soon as topics are announced
- **▶** Deep dive into the solicitation
 - Fully understand the requirements and review criteria
- ▶ Don't hesitate to reach out
 - ► Talk to the topic writer / specific solicitation contact when in doubt
- ► Attend social/networking events
 - Obtain insight on defense/aerospace needs and feedback for your solution

- ► Show off your writing skills
 - ► Be specific and concise
- ► Have a checklist
 - ► For all proposal elements during the preparation stage
- ► Initiate the submission early
 - ► Familiarize yourself with the submission portal
- ► Have an expert (fresh set of eyes) review your proposal package before submission
- Digest reviewers' comments and plan for the next submission



Questions?



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Elizabeth Dougherty
United States Patent & Trademark
Office

UNITED STATES PATENT AND TRADEMARK OFFICE



Growing your IP knowledge and know-how

Intellectual Property (IP) Myths and Misconceptions

October 24, 2025 Elizabeth L. Dougherty Interim Southeast Regional Outreach Director



Discussion Topics

- IP is a Business Strategy
 - IP and SBIR/STTR
- What is intellectual property (IP)?
 - What is the U.S. Patent and Trademark Office
 - Trade secrets, copyrights, trademarks, patents
- USPTO Resources Introduction

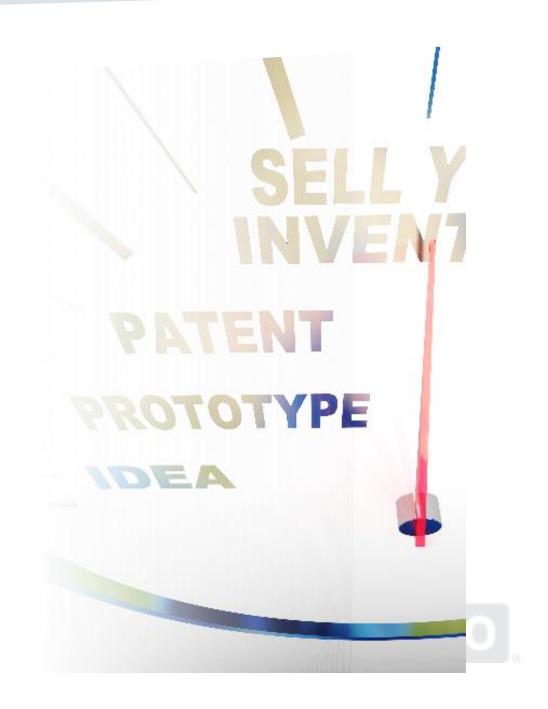


Leveraging IP for Business Success

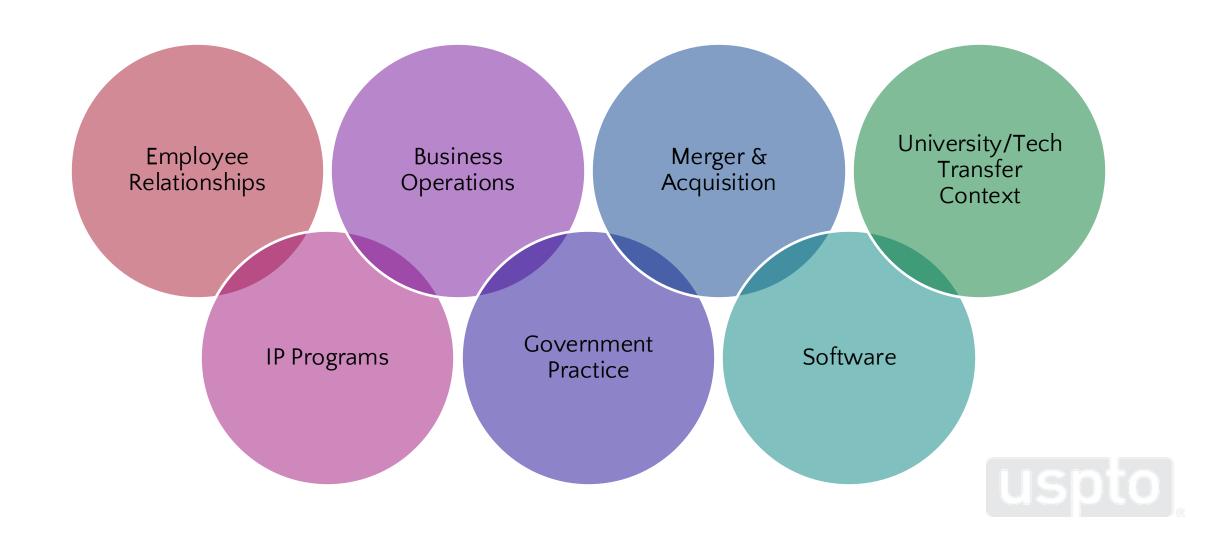
IP Strategy <u>IS</u> a Business Strategy

IP:

- Attracts Investors and Buyers
- Deters Infringement Lawsuits
- Can Increase Leveraging Power
 - Mergers and acquisitions
- Is a Property Right
 - Adding value to company's assets
- Is Global

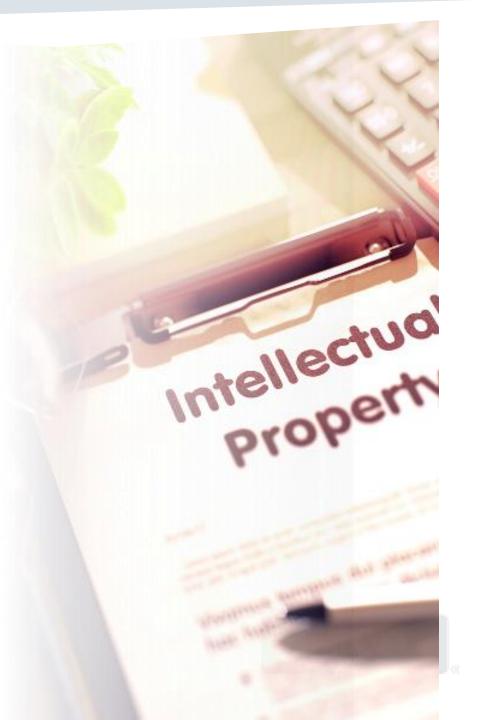


Where do IP rights come into play?



Developing an IP strategy

- Assess your company's IP assets and prioritize
- Know your competition and what they're up to
- What's the pace of innovation and opportunities for growth?
- Determine the best way to protect your IP
 - Patents (Utility, Design, Plant)
 - Trademarks (Trademark, Service Marks, geographic certification, etc.)
 - Copyrights
 - Trade Secrets
- Develop a plan, set goals and implement
- Get help!



Types of intellectual property



New, inventive ideas





Trademark

Identifies the origin of goods or services







Copyright

Creative expression stored in a tangible form





Trade secret

Any information that is valuable & kept confidential



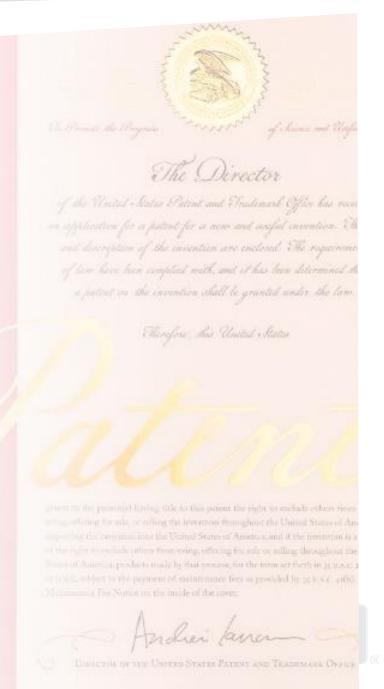




What is a patent?

The right to exclude others from:

- making, using, selling, offering for sale,
 or importing the claimed invention
- Limited term
- Territorial: A U.S. patent provides protection only in the United States
 - No worldwide patents



What is a trademark?

- Key Purposes:
 - Allow consumers to identify the source or producer of different products and services – helps their buying decisions
 - Encourage trademark owners to provide goods and services of consistent quality and to build goodwill in the trademark



What is a copyright?

- Protects "original works of authorship" including literary, dramatic, musical, artistic and other works fixed in a tangible medium
- Library of Congress administers registration; USPTO advises the Executive branch on intellectual property issues including copyright
- © symbol can be used without registration



What is a trade secret?

- Any information that derives economic value from not being generally known or ascertainable
- Can be formulas, patterns, compilations, programs, devices, methods, techniques or processes
- Protection stems from common law dating to the 1800's
- All states have some sort of trade secret protection
- Most laws based on the Uniform Trade Secrets Act



Intellectual Property (IP) Considerations for Your Business

Have you established the following IP programs to velop?	o identify, protect, and use the IP that you de-
□ Invention Harvesting or Mining System □ Invention Disclosure System □ Licensing/IP Monetization Strategy □ Enforcement Strategy □ IP Portfolio Management System □ Trade Secret Theft Program Have you thought about how you will deal with IP texts?	ownership in the following employment con-
□ Former employees □ Current employees □ Including those who may have multiple jobs □ Including potential employees under a non- □ Contractors □ Work for Hire □ Joint Developments	
Have you thought about the IP rights you need to	operate your business in the following con-
☐ Software licenses ☐ Joint Development Agreements - With universities and non-profits - With Federal, state, and local governments - With other companies	 □ Intellectual Property licenses □ Procurement agreements and purchase orders with suppliers and vendors □ Intellectual Property Insurance □ Non-disclosure agreements



Intellectual Property (IP) Considerations for Your Business

Have you looked at IP rights when you are purchasing or selling a company or a line of business?
$\ \square$ Transferred (received or sold) intellectual property assets and the associated rights
☐ Chain of title for the intellectual property asset
☐ Representations and warranties securing the intellectual property right
☐ Third party rights encumbering the intellectual property asset
\square Software licenses and rights transferred with the software license
Are you working with a university or a government entity and have you considered IP ownership in the following context?
☐ Joint Development Agreements
☐ Government license and march-in rights
☐ Technology transfer ability
Ownership of work developed by professors and students (undergraduate & graduate)
☐ Technology developed under secrecy orders
What are your intellectual property obligations for the software that you purchased or licensed?
☐ Audits and reporting requirements
☐ Usage of open source software
☐ Clickwrap Agreements
☐ Shrinkwrap Licenses
$\ \square$ Development projects and software code development with mix of new and licensed software



Strategic Steps for Protecting IP in SBIR and STTR Programs

- Early IP strategy development
- Negotiate IP clauses in contracts
- Plan for commercialization early on
- File for IP protection promptly





Can I patent my trademark or copyright my patent?



Intellectual property overview

	Utility patents	Design patents	Trade secrets	Copyrights	Trademarks				
What is protected	Any new and useful process, machine, manufacture, or composition of matter	New, original, and ornamental design for an article of manufacture	Business-related information (formulas, techniques, information)	Original works of authorship fixed in a tangible medium, such as books, photos, music, fine art, graphic images, videos, films, architecture, computer programs	Marks that indicate the source or origin of goods or services				
Requirements	Utility, novelty, and nonobviousness	Novelty and nonobviousness	Commercial value, generally not known, and reasonable efforts of secrecy	Original, authorship, and fixation in a tangible medium	Use in commerce and either distinctiveness or secondary meaning				
Protects against	Making, selling, offering for sale, and importing	Making, selling, offering for sale, and importing	Stealing	Copies, performances, displays, and derivative works	Use of a mark that causes the likelihood of confusion				
Endures until	Up to 20 years from the date of filing the first nonprovisional patent application	15 years from grant	Publicly disclosed	The life of the author + 70 years	Abandoned				

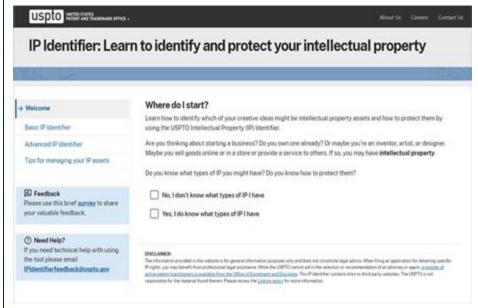
Learn how to identify your type of IP

- The <u>IP Identifier</u> allows you to:
 - <u>Identify your type of IP assets</u> by answering six brief questions
 - <u>Learn basic information</u> about your identified IP
 - Save the information from your session and a tailored list of resources in a PDF format
 - Access links to other helpful information and resources

Find out more @ ipidentifie









New module: Managing your IP assets





A patent is a company's most valuable form of IP.



Not always, here's an example:

- 1. Coca-Cola has one of the most valuable and well-known trademarks in the world. The Coca-Cola trademark is estimated to be worth more than \$84 billion, making it one of the most valuable brands in the world.
- 2. To protect its trademark, Coca-Cola has taken several measures, including registering its trademark in more than 200 countries and taking legal action against companies that attempt to imitate or infringe on its trademark.
- Overall, Coca-Cola's trademark is essential to its brand identity and is crucial for its success. The company takes great care to protect its trademark and has maintained its distinct brand identity over the years.



The USPTO issues all IP rights in the U.S.

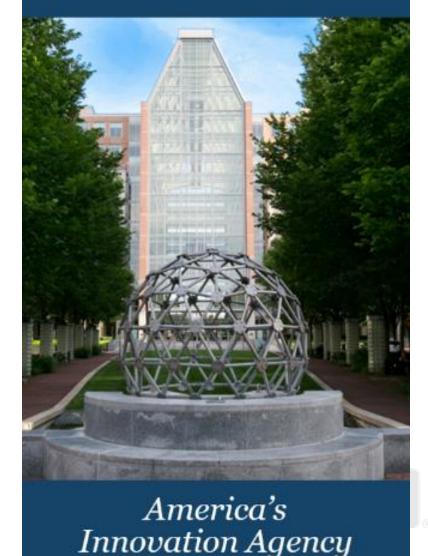


The USPTO is America's innovation agency

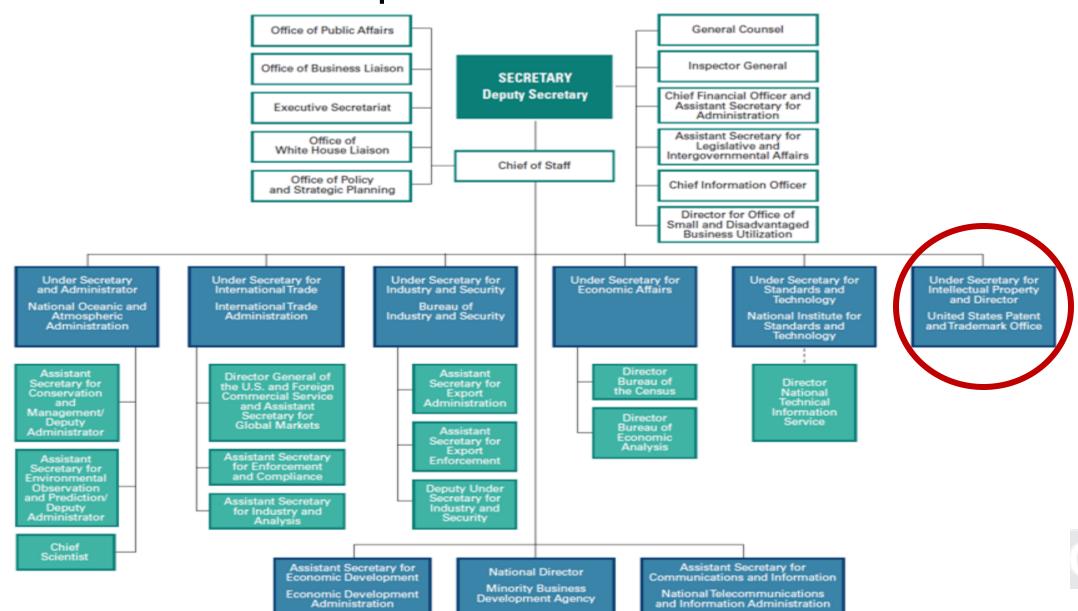
Committed to:

- Fostering innovation and economic growth
- Creating a reliable, predictable, and high-quality intellectual property (IP) system





We're Part of the U.S. Department of Commerce!



The USPTO in FY 2024

14,078 employees

- 9,016 patent examiners
- 765 trademark examining attorneys
- **221** administrative patent judges
- 28 administrative trademark judges

Patents

- 663,591
 applications filed
- 365,614 patents issued

Trademarks

- 767,297
 trademark
 applications
- 338,854 certificates of registration

USPTO headquarters in Alexandria, Virginia







An individual has to be a U.S. citizen and of legal age (an adult) to receive U.S. IP rights.



35 USC §101 Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

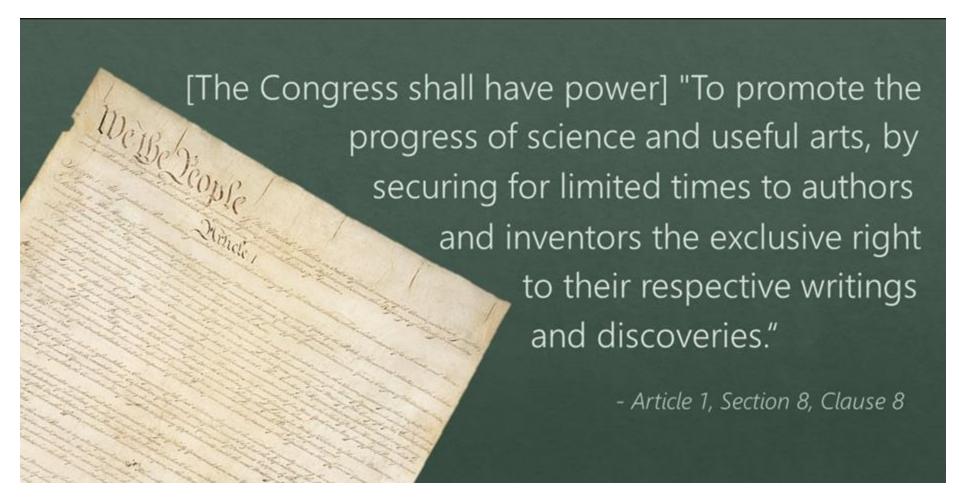




I can renew my patent to extend it's life, especially if I am still using it or going to use it.



IP rights found in the US Constitution







I have not seen my product on stores shelves or the internet. I am entitled to a patent.



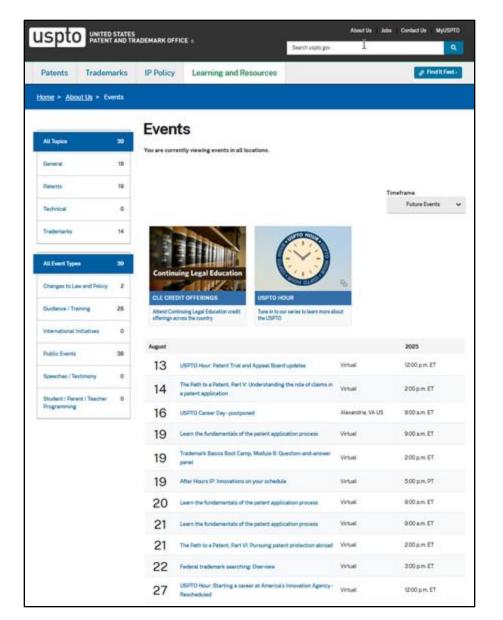
Patent and Trademark Resource Centers (PTRCs)

- PTRC program administers a nationwide network of public, state, and academic libraries designated to:
 - Disseminate patent and trademark information.
 - Support diverse IP needs to the public
- PTRC library representatives can:
 - Provide access to resources.
 - Explain application process and fee schedule.
 - Demonstrate patent and trademark search tools.
 - Offer classes on IP.
 - Assist to do historical research on patents and trademarks.
 - And much more.
- www.uspto.gov/ptrc





Attend free USPTO events





uspto.gov/events





I have a GREAT idea. I should tell everyone about it so they can give me feedback and maybe even invest in my idea.



Public Disclosures and Protecting Your U.S. Patent Rights

Public disclosures of your invention before you file a patent application may affect your ability to get a

patent:

A public disclosure is exactly what it sounds like: discussing or disclosing your invention in such a way that the invention is available or accessible to the public. Examples of public disclosures include:

- displaying your invention at a trade show,
- *posting your invention on the Internet
- ♦ offering to sell your invention
- a description of your invention in a newspaper or journal article, or
- publicly demonstrating your invention.

Under a grace period provided in U.S. patent law, an inventor may file for a patent within one year from the public disclosure of the invention (although foreign patent rights may be affected):

An inventor's public disclosure of his own work at a trade show, for example, made less than one year before he files his patent application would not preclude patenting of the disclosed invention.

An inventor's public disclosure of her invention made less than one year before she files her patent application may, in certain circumstances, prevent another person's later public disclosure of that same invention from being used to preclude the inventor's ability to patent her invention.

Protect your invention by filing a patent application before making <u>any</u> public disclosure; the grace period is not absolute protection against all public disclosures.



File Your Patent Application As Soon As Possible!

Since 2013, the United States has operated under a first-inventor-to-file patent system. After completing your invention, protect it by filing your patent application promptly. Here's how earlier-filed patent applications could affect your ability to obtain a U.S. patent on your invention:

Filing First Matters:

Earlier-filed U.S. published applications* or patents by someone else, disclosing the same invention as yours, generally prevent you from obtaining a patent on your later-filed patent application – even if the earlier-filed application is published or patented

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However, under @ ldeptate ht 4 inv., and tank into might still

If the earlier-filed published application or patent is your own work, the earlier-filed published application or patent may not preclude patenting of your invention.

If you publicly disclose your invention before someone else files their application, and you later file your application, then the other's earlier-filed application (even if published or patented) may not preclude patenting of your invention.



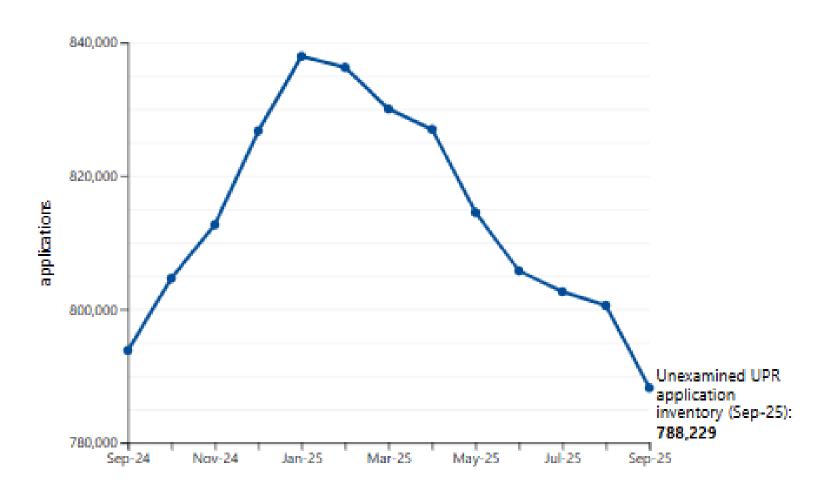




It takes years to get a U.S. patent.



Utility, Plant, and Reissue (UPR) unexamined patent application inventory





Need a patent quicker?

- Track One: Prioritized examination
- Accelerated Examination design only
- Petitions to Make Special: Age and Health
- Patent Prosecution Highway



USPTO dashboards

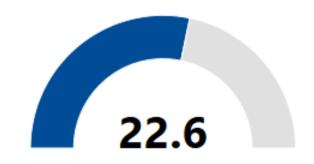
- Patents
- Trademarks
- Patent Trial and Appeal Board
- Office of Policy and International Affairs





Patent dashboard

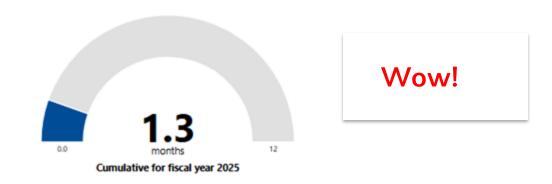
First Office Action pendency



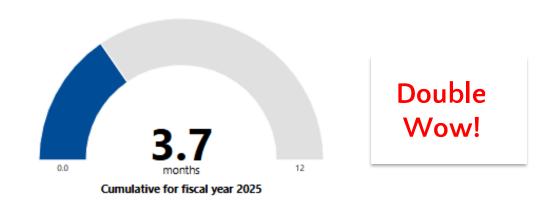
Traditional total pendency



Track One Pendency From Petition Grant to First Office Action



Track One Pendency From Petition Grant To Allowance





There is no way to cut the cost of getting a patent; patents are too expensive.



Reduced patent fees

Small Entity

- 60% reduction in most patent fees
- Must be an individual or
- A small business (less than 500 employees) or a non-profit organization

Micro-Entity

- 80% reduction in most patent fees
- Meet small entity requirement
- Filed no more than 4 previous applications
- Income not greater than 3x median income
- Not assigned to other than a micro-entity
- Inventions assigned to employer don't count against you

For more information on Micro Entity: https://www.uspto.gov/patents/laws/micro-entity-status



Provisional vs. Non-Provisional Patent Applications

Provisional	Non-provisional
 Not examined or published One year time limit Only for utility patents A low-cost way to establish an early effective filing date (priority date) in a non-provisional patent application with few formalities 	 Examined Published 18 months from earliest filing date (unless a request for a non-publication at filing) Can become a patent



Check out free legal assistance programs*

- Patent Pro Bono Program a nationwide program matching financially under-resourced inventors and small businesses with volunteer patent practitioners to file and prosecute patent applications.
 - uspto.gov/probonopatents
 - probono@uspto.gov
- Law School Clinic Certification Program permits law students under the supervision of a participating law school clinic's supervisor to practice patent and/or trademark law before the USPTO while providing those services to applicants, pro bono.
 - uspto.gov/lawschoolclinic
 - lawschoolinformation@uspto.gov





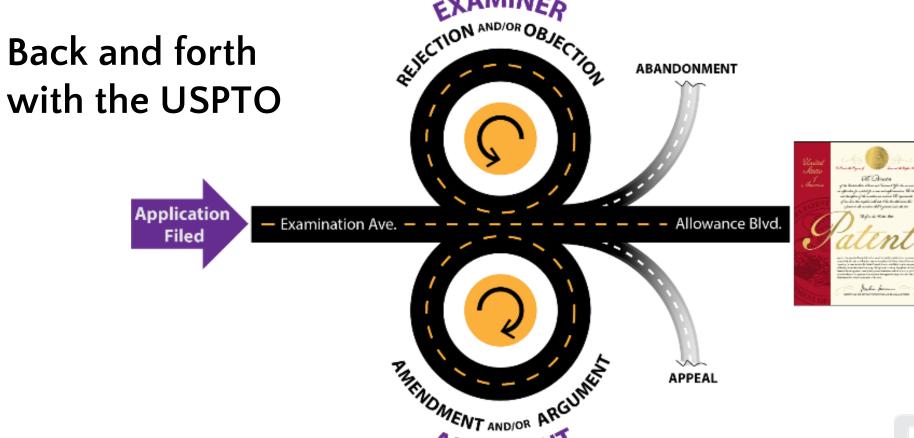
^{*}Applicant(s) are not charged for legal services, but must pay all USPTO fees and any additional costs that may arise



The USPTO sent me a communication about my patent application. In it, they rejected my patent claims. They hate my idea.



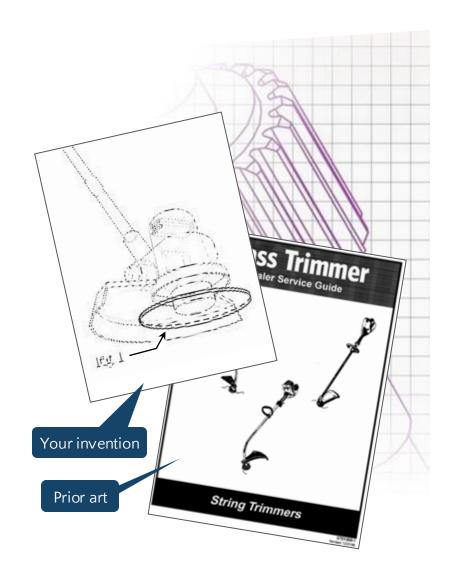
The patent application roadmap





Hurdles to Patenting Is your invention:

- "Novel": e.g., your invention is new, was not described in the prior art or known
- "Non-obvious": e.g., the differences between your invention and prior art would not have been obvious to someone in that field
- Does it have "utility": e.g., does it function as intended





What is NOT patentable?

- Cannot Patent an Idea
 - Must be able to be developed into a new, nonobvious and useful machine, manufacture, process, or composition of matter that can actually accomplish the task
- Cannot Patent Natural Phenomena
- Cannot Patent Abstract Ideas



Drafting and prosecution tips

	Need	Experience	Gap
Having the inventive concept clearly set forth		5.06	3.0
Having the specification clearly describe the referenced features in the drawings	7.89	6.88	1.0
Having the Drawings show the inventive concept	7.83	5.94	1.9
Having the "Detailed Description of the Invention" expand on the invention disclosed in the "Summary"	7.59	7.07	0.5
Having the preferred embodiments described in detail	7.43	6.07	1.4
Using clear terms and correct grammar and syntax	7.74	5.50	2.2
Having claims that are clear and correct in syntax and grammar	8.76	5.85	2.9
Having independent claims that capture the same inventive concept disclosed in specification	8.59	4.77	3.8
Having claim terminology that is highly correlated with language disclosed in the specification	8.23	5.92	2.3
Having claims that are solely directed to the inventive concept (not broader than the inventive concept)	7.45	3.08	4.4
Having a reasonable/manageable number of claims	8.74	4.97	3.8
Having all citations in IDS in English (translations are provided with submission)	7.53	3.91	3.6
Having a reasonable/manageable number of references cited in IDS	7.88	5.37	2.5
	Having the Specification clearly describe the referenced features in the drawings Having the Drawings show the inventive concept Having the "Detailed Description of the Invention" expand on the invention disclosed in the "Summary" Having the preferred embodiments described in detail Using clear terms and correct grammar and syntax Having claims that are clear and correct in syntax and grammar Having independent claims that capture the same inventive concept disclosed in specification Having claim terminology that is highly correlated with language disclosed in the specification Having claims that are solely directed to the inventive concept (not broader than the inventive concept) Having a reasonable/manageable number of claims Having all citations in IDS in English (translations are provided with submission)	Having the inventive concept clearly set forth Having the specification clearly describe the referenced features in the drawings 7.89 Having the Drawings show the inventive concept 7.83 Having the "Detailed Description of the Invention" expand on the invention disclosed in the "Summary" 7.59 Having the preferred embodiments described in detail 7.43 Using clear terms and correct grammar and syntax 7.74 Having claims that are clear and correct in syntax and grammar 8.76 Having independent claims that capture the same inventive concept disclosed in specification 8.59 Having claim terminology that is highly correlated with language disclosed in the specification 8.23 Having a reasonable/manageable number of claims 8.74 Having all citations in IDS in English (translations are provided with submission) 7.53	Having the inventive concept clearly set forth Having the specification clearly describe the referenced features in the drawings 7.89 6.88 Having the Drawings show the inventive concept 7.83 5.94 Having the "Detailed Description of the Invention" expand on the invention disclosed in the "Summary" 7.59 7.07 Having the preferred embodiments described in detail 7.43 6.07 Using clear terms and correct grammar and syntax 7.74 5.50 Having claims that are clear and correct in syntax and grammar 8.76 Having independent claims that capture the same inventive concept disclosed in specification 8.59 Having claim terminology that is highly correlated with language disclosed in the specification 8.23 Having claims that are solely directed to the inventive concept (not broader than the inventive concept) 7.45 3.08 Having a reasonable/manageable number of claims 8.74 4.97 Having all citations in IDS in English (translations are provided with submission) 7.53 3.91





A patent is a ticket to a million dollars.



Access inventor and entrepreneur resources

 USPTO's hub for resources and information for inventors, entrepreneurs, and small businesses.





uspto.gov/inventors



Access resources for startups



The USPTO's hub for startup resources can help you address the intellectual property (IP) challenges specific to startups, including securing funding and guarding against costly infringement litigation.

Here you will find practical information and useful tools, available from a wide variety of government agencies, including the Small Business Administration (SBA) (S), the Minority Business Development Administration (MBDA) (S), and Small Business Development Centers (SBDCs) (S). These agencies can assist you at every stage of growing your business, from your initial idea to entering the global marketplace.



Protect IP rights

Guard your valuable work

You need to protect your IP if you want to succeed and attract investors.

- Access inventor and entrepreneur resources
- > Protect your IP in the U.S.
- > Protect your IP abroad
- > Fight costly counterfeits &
- Access IP training modules in five languages
- Access resources for small and medium-sized enterprises



Plan for success

Do your homework

Explore free government resources that can help you create a foundation for business success.

- Learn the steps to start your business
- Find a M8DA Center in your state <a>C
- Get free business counseling near you



Find funding

Access capital

There are many sources of startup funding, including grants, loans, and different kinds of investors.

- > Choose the right funding 3
- > Search federal grants &
- > Learn about America's Seed Fund (3)
- > Access SBA loans C



Engage experts

Get advice and assistance

Find mentors, partnerships, and technological assistance in your industry. Learn to navigate the domestic and international IP markets.

- Get free advice from business experts at SCORE
- > Get help with manufacturing your technology
- Learn about IP protection in other countries
- Utilize IP attachés to navigate the global market

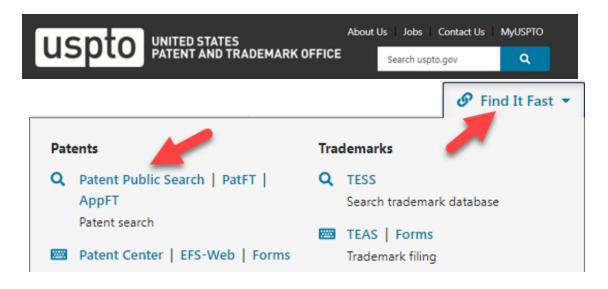


uspto.gov/startups



Patent Public Search

- Visit us at <u>www.uspto.gov</u>
- Patent Public Search a web-based patent search application with modern interfaces that provide enhanced access to prior art.
- Click on Help, FAQs, and training materials to learn more.







Path to a Patent

 Path to a Patent: this free training series covers everything from intellectual property basics, to patent searching, to what you'll need to draft and submit your application.





About



Learn more about the AccessUSPTO mission to conduct customized education and outreach to participating national organizations and the public.

- > Mission statement
- > Meet the team



IP starter toolkit



Discover existing intellectual property and entrepreneurial resources to get your members started in the right direction.

- > Aco
- Inventor and entrepren resources
- Patent and trademark practitioners
- > Startup resources



IP training and events



Take advantage of the USPTO's many ongoing IP events and trainings that are designed for aspiring creators, entrepreneurs, and inventors.

- > Online Path to a Patent program
- > Unline Trademark Basics Boot
- In-person patent and trademark boot camps for internet deserts
- > Browse all events



Speaker requests



We welcome requests for USPTO executives to speak to the public about our priorities and initiatives. Please complete our speaker request form to start a request:

Speaker request form





The USPTO is hiring over 1000 patent examiners.





A patent examiner in a federal employee who examines patent applications to determine whether or not a patent can be granted for new, cutting edge inventions. Your expertise can help to bring innovation to life. As an examiner, you will focus on analyzing advanced, complet that ultimately protect American intellectual property (IP) and breakthough inventions. Join us, and find out for yourself why the USPTO is a great place to work.



Put your hard work to work

You worked hard to earn a specialized STEM degree. Now use it for a missionfocused career that protects American innovation.



A missionfocused mindset

As you pursue your STEM degree, get involved as an extern at the USPTO, attend a recruitment event, follow us on social media and check out our USPTO Joba page. Also, consider boosting your writing, frommunications skills. Here are some steps you can take right now to position yourself for a future career as a patent examiner.

your professional skills

Your STEM background will help you to exestigate inventions and determine if they should receive patents. Through challenging work, your technical skills can grow.





Bring innovation to life

By granting patents as an examiner, you'll help businesses quickly move their innovations to market, creating new jobs and expanding commerce.



Impact lives and the economy

Many patents, like those in the health sector, can positively impact lives. You'll end your work day knowing that the patents you grant positively impact the U.S. economy.



Enjoy worklife balance & career satisfaction

Why choose anything less than a fulfilling job?

Do work that you are passionate about, in a culture of camaraderie, support, and growth.



Compensation

Most patent examiners start with the USPTO as a GS-7 or GS-9.



Basic Qualifications

To apply, you must be a U.S. citizen and also possess a minimum of a bachelor's degree in engineering, science, or related STEM fields.



Promotion Potential - Your Career, Your Way

You will have a well-defined career path that gives you specific milestones to reach for while advancing throughout your career. Patent examiners, based on their achievements, are noncompetitively promotable up to the GS-13 level!



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Thank you!

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