NSF ENGINES FACT SHEET

Industry fact sheet on the NSF Engines program

Jumpstart your region's innovation ecosystem with up to $160 million over 10+ years.

The U.S. National Science Foundation Regional Innovation Engines (NSF Engines) program supports the development of cross-sector regional coalitions to engage in use-inspired research, drive research results to the market and society, promote workforce development and ultimately stimulate the economy and create new jobs. Each NSF Engine focuses on use-inspired research and development that creates new technologies, jobs and economic opportunities for national, societal and economic impact. The program was launched in May 2022 by the NSF Directorate for Technology, Innovation and Partnerships.

The NSF Engines program encourages regional teams of innovators and ecosystem builders, including industry leaders, working in partnership with others, to submit proposals aimed at building innovation ecosystems across the U.S.

Goal of the NSF Engines program

The NSF Engines program envisions supporting multiple flourishing regional innovation ecosystems across the U.S., spurring economic growth in regions that have not fully participated in the technology boom of the past few decades.

10 inaugural NSF Engines

In January 2024, NSF announced the first-ever NSF Engines awards to 10 teams of innovators and ecosystem builders from industry, higher education, nonprofit, tribal nations and state and local governments. Each awardee team received an initial $15 million over the two years with the potential to receive up to $160 million each over the next decade. 60% of NSF Engines awardees include partners who are new to NSF funding, demonstrating NSF's openness to novel, creative partnerships.

- Central Florida Semiconductor Innovation Engine
- Colorado–Wyoming Climate Resilience Engine
- Great Lakes Water Innovation Engine
- Louisiana Energy Transition Engine
- North Carolina Textile Innovation and Sustainability Engine
- North Dakota Advanced Agriculture Technology Engine
- Paso del Norte Defense and Aerospace Innovation Engine
- Piedmont Triad Regenerative Medicine Engine
- Southwest Sustainability Innovation Engine
- Upstate New York Energy Storage Engine

Check out our website:

https://nsf.gov/funding/initiatives/regional-innovation-engines

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We invite you to sign up for our newsletter to learn more about the NSF Engines program.

Email Subscription:
https://public.govdelivery.com/accounts/USNSF/subscriber/new?topic_id=USNSF_369

U.S. National Science Foundation
Regional Innovation Engines

Email us questions:
engines@nsf.gov

Why should industry reach out to an NSF Engine?

- The program explicitly focuses on use-inspired research, technology translation and workforce development for industries of the future.
- NSF Engines de-risk, prototype and scale technologies in areas of U.S. economic and industrial competitiveness.

How is this different from other federal innovation programs?

- The amount and length of program funding per investment (up to $160 million per region for up to 10 years)—an order of magnitude greater than traditional NSF awards demonstrates NSF's commitment to driving transformative economic growth throughout the U.S.
- Compared to other NSF innovation programs, NSF Engines support extends beyond basic and use-inspired and translational research, focusing on creating the research and translation spine of a regional innovation ecosystem. NSF Engines runs the gamut of basic research to economic growth, including activities around startup firm creation, job creation and cultivating the talent pool to fill jobs in industries of the future.
- This program is being run in close collaboration with other federal agencies, most notably the Department of Commerce's Economic Development Administration programs, including Regional Technology and Innovation Hubs and the Build Back Regional Challenge. While some regions receive funding from both agencies, the NSF Engines program is unique in that NSF is willing to fund earlier-stage research and assume more technical and commercial risk than some of the aforementioned programs, recognizing the need to create the translational and research pathway to move technologies from lab to market.

What are some examples of engagement pathways for industry?

- Partner with an NSF Engine.
- Build on NSF's funding to co-invest in fundamental and translational research, startup company creation, innovation ecosystem infrastructure building and workforce development programs.
- License technologies and co-invest in startups emerging from NSF Engines.
- Loan executives to serve in NSF Engines leadership roles or as entrepreneurs-in-residence and mentors.
- Partner on talent initiatives; recruit and co-design workforce development programs that fit industry needs.

Take action

- Convene relevant sectors and organizational types within your region.
- Complete the NSF Engines Engagement Interest Form.